165 170

<210> 29954
<211> 746
<212> PRT
<213> A.fumigatus

<400> 29954

```
Val Val Ser Tyr Thr Gly Pro Pro Asn Arg Leu Pro Gln Phe Glu Tyr
1               5                  10                  15
Glu Pro Thr Gln Lys Val Pro Leu Lys Ala Asn Met Trp Leu Glu Thr
            20                  25                  30
Val Ile Thr Leu Leu Leu Arg Glu Lys Asn Trp Glu Ile Tyr Ser Tyr
        35                  40                  45
Val Leu Thr His Leu Ala Pro Gln Leu Ser Asn Arg Gly Leu Phe Arg
    50                  55                  60
Asn Ala Val Pro Gln Ile Lys Leu Leu Arg Ser Val Met Cys Asp Gln
65                  70                  75                  80
Val Lys Asn Glu Ser Phe Arg Glu Pro Pro Val Ser Thr Gly Val Lys
                85                  90                  95
Lys Thr Asp Val Ala Gly Tyr Ile Phe Asp Cys Leu Ser Val Leu Val
            100                 105                 110
Ser Tyr His Glu Val Phe Ala Lys Ser Glu Glu Asp Glu Leu Val Arg
        115                 120                 125
Ala Phe Met Met Gly Ile Ile Gly Ser Trp Gly Asp Thr Ser Arg Arg
    130                 135                 140
Cys Val His Ala Leu Ser Val Cys Cys His Glu Ile Pro Leu Ser Val
145                 150                 155                 160
Thr Lys Ser Leu Asn Gly Ile Phe Asp Lys Met Ala Lys Val Ile Thr
                165                 170                 175
Met Ser Asn Leu Ala Val His Ile Leu Glu Phe Leu Ser Leu Leu Ala
            180                 185                 190
Arg Leu Pro Asp Val Tyr Val Asn Leu Arg Asp Glu Glu Ile Arg Thr
        195                 200                 205
Val Phe Gly Ile Cys Ile Arg Phe Leu Gln Thr Ser Arg Glu His Arg
    210                 215                 220
Val Arg Ala Gly Asp Ser Ser Asn Arg Pro Ser Gln Thr Ser Ser Arg
225                 230                 235                 240
Leu Ala Gly Gly Val Lys Glu Ile Ala Thr Pro Gly Glu Pro Ser Asp
                245                 250                 255
Pro Ser Gln Gln Asp Gly Met Ser Arg Tyr Ile Tyr Thr Leu Thr His
            260                 265                 270
His Val Met Val Phe Trp Phe Leu Ser Leu Lys Leu Gln Asp Arg Ala
        275                 280                 285
Lys His Val Asn Trp Ile Thr Ser Arg Leu Ile Phe Arg Asp Glu Tyr
    290                 295                 300
Gly Gln Glu Arg Val Glu Glu Gln Ser Gln Val Phe Ile Asp Leu Met
305                 310                 315                 320
Gln Arg Val Ala Phe Ser Asp Leu Gly Glu Thr Ile Pro Tyr Glu Thr
                325                 330                 335
Phe Pro Pro Ser Pro Ser Asp Gly Pro Val Ser Lys Lys Ser Trp Val
            340                 345                 350
Val Gly Met Ser Ile Val Thr Val Glu Thr Ala Gly Val Ser Gly Leu
        355                 360                 365
Thr Gln Ile Thr Lys Arg Gln Ala Ser Gly Thr Thr Tyr Ala Met Tyr
    370                 375                 380
```

```
Gln Gln Arg Thr Ala Pro Val Leu Pro His Gln Val Pro Thr Ser Pro
385                 390                 395                 400
Asp Ala His Thr His Ser Asp Asp Met Arg Thr Ala Val Leu Pro Ser
                405                 410                 415
His Val Leu Leu Gln Leu Thr Thr Thr Ala Phe Pro Thr Pro Thr Val
            420                 425                 430
Met Gln Pro Ile Pro Leu Pro Asp Asp Asp Met Thr Arg Arg Ala Leu
        435                 440                 445
Ser Ile Phe Asp Arg Asn Asp Ile Val Asp Gly His Lys Ile Gly Val
    450                 455                 460
Ile Tyr Ile Asp Asp Gly Gln Thr Thr Glu Ser Glu Ile Leu Ser Asn
465                 470                 475                 480
Thr Ile Gly Ser Pro Asp Tyr Glu Tyr Phe Leu Ser Gly Leu Gly Thr
                485                 490                 495
Lys Val Pro Ile Arg Gly Ala Gln Phe Asn Thr Gln Gly Leu His Pro
            500                 505                 510
Asp Val Asp Gly Glu Phe Thr Tyr Ala Trp Arg Asp Arg Val Thr Glu
        515                 520                 525
Ile Val Tyr His Val Ala Thr Met Met Pro Thr Asp Phe Asp Arg Asp
    530                 535                 540
Pro Ala Cys Ile Asn Lys Lys Arg His Ile Gly Asn Asp Phe Val Asn
545                 550                 555                 560
Ile Ile Phe Asn Arg Ser Asn Val Pro Phe Asn Phe Asn Thr Ile Ala
                565                 570                 575
Ser Gln Phe Asn Phe Ile Asn Ile Ile Ile Ser Pro Val Cys Arg Ile
            580                 585                 590
Ala Ser Ala Pro Gly Ala Ala Thr Pro Thr Pro Ser Asp Phe Glu Arg
        595                 600                 605
Thr Ser Tyr Thr Val Lys Val Met Ser Lys Pro Gly Leu Pro Glu Ile
    610                 615                 620
Ser Pro Ala Ser Thr Ala Lys Val Ile Ser Gly Lys Asn Leu Ala Ala
625                 630                 635                 640
Phe Val Arg Ile Leu Ala Leu Asn Ala Ser Val Phe Ser Leu Val Trp
                645                 650                 655
Asn Ser Gln Gly Gly Glu His Val Ser Ser Trp Arg Asn Arg Leu Arg
            660                 665                 670
Glu Ile Lys Arg Leu Arg Glu Arg Ala Leu Gly Ser Gln Leu Gln Met
        675                 680                 685
Ser Glu Ala Ala Glu Gly Ala Tyr Pro Gly Gln Arg Arg Asn Thr Lys
    690                 695                 700
Pro Asn Ile Phe Ser Glu Glu Val Pro Ser Arg Ile Thr Pro Val Lys
705                 710                 715                 720
Thr Asp Phe Ala Thr Asp Trp Asn Ala Ala Ala Asp Ala Asn Ile Leu
                725                 730                 735
Gln Asn Leu Asp Phe Ser Arg Trp Gly Arg
            740                 745
```

<210> 29955
<211> 87
<212> PRT
<213> A.fumigatus

<400> 29955

```
Thr Pro Thr Lys Ser Pro Ser Arg Asp Thr Pro Gly Thr Val Ile Thr
1               5                   10                  15
Phe His Val Val Arg Phe Ser Pro Ile Pro Leu Met Ala Asp Ala Leu
```

```
            20                  25                  30
Val Leu Asn Pro Asp Asn Leu Ser Arg Leu Asp Phe Lys Leu Phe Ser
        35                  40                  45
Asp Trp Asn Ala Tyr His Phe Lys Asn Pro Asn Pro Pro Ser Phe Asn
    50                  55                  60
Pro Arg Leu Val Pro Leu Ser Ile Trp Gly Phe Pro Leu Leu Ser Lys
65                  70                  75                  80
Phe Pro Arg Leu Ser Ser Pro
                85
```

<210> 29956
<211> 755
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (735)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 29956

```
Phe Val Val Ser Tyr Ser Gly Ser Cys Val Arg Ala Leu Gly Asp Asp
1               5                   10                  15
Val Phe Val Leu Gln Thr Leu Met Ala Glu Thr Asp Thr Gln Cys His
            20                  25                  30
Thr Gly Asn Gly Gly Leu Ala Arg Ile Arg Ile Asp Glu Ala Arg Val
        35                  40                  45
Ile Leu Gln Val Ser Val Asp His Met Arg Asp Leu Ala Phe Arg His
    50                  55                  60
Pro Ser Arg Ala Ser Ala Leu Arg Gly Ile Leu Leu Asn Met Leu Leu
65                  70                  75                  80
Gly Phe His Pro Val Ala Ser Lys Ile Tyr Ala Leu Ser Val Asn Pro
                85                  90                  95
Arg Asp Cys Glu Lys Trp Ser Glu Tyr Tyr Arg Thr Ala Met Ala Asp
            100                 105                 110
Ile Lys Ala His Gly Tyr Phe Gln Lys Ile Met Ala Leu Pro Ser Arg
        115                 120                 125
Pro Ala Gly Ser Ser Asp Ser Asn Gln Pro Pro Ile Met Leu Asn Met
    130                 135                 140
Thr Ala Ile Phe Gln Glu Gln Arg Glu Ala Glu Ser Leu Ala Arg Asn
145                 150                 155                 160
Tyr His Glu Lys Ser Asn Met Ala Tyr Ser Glu Leu Glu Lys Gly Asn
                165                 170                 175
Ile Asp Gly Tyr Glu Ala His Leu Gln Glu Phe Leu Asp Asp Ser Ser
            180                 185                 190
Ser Ser Gly Ala Pro Gln Asp Leu Val Ala Thr Phe Arg Leu Leu Thr
        195                 200                 205
Leu Ser Ser Leu Gly Asp Phe Glu Gln Ala Lys Thr Glu Leu Pro Arg
    210                 215                 220
Ala Val Pro Arg Leu Phe Gly Gln Glu Glu Asn Leu Thr Glu Arg Cys
225                 230                 235                 240
Met Arg Leu Leu His Met Glu Gly Gln Val Ile Asp His Ser Ile Gln
                245                 250                 255
Ile Asp Ser Asn Gln Ala Leu Arg Ala Ile Ser Leu Cys Phe Leu Cys
            260                 265                 270
Arg Asp Trp Asp Arg Trp Ser Tyr Leu Leu Glu Thr Ile Ser Gln Asn
```

```
        275                 280                 285
Val Pro Gly Tyr Leu Asp Leu Asp Glu Met Arg Asp His Ser Thr Asp
    290                 295                 300
Trp Met Leu Ala Thr Trp Val Gly Ala Ile Tyr Asp His Asn Gly Gln
305                 310                 315                 320
Tyr Asp Thr Ala Phe Glu Trp Tyr Leu Trp Ala Asn Glu Val Met Glu
                325                 330                 335
Thr His Arg Glu Gly Thr Ser Asp Asp Glu Ala Arg Arg Gly Ser Gln
            340                 345                 350
Ser Ser Ile His Gly Gly Glu Leu Phe Ala Gly Leu Ile Arg Val Cys
        355                 360                 365
Leu Arg Tyr Ala Ser Leu Ser Thr Thr Asn Pro Gln Pro Lys Ala Pro
    370                 375                 380
Ile Asp Trp Gly Leu Pro Ala Pro Asn Trp Thr Gly Gln Ala Leu Val
385                 390                 395                 400
Phe Leu Glu Arg Thr Phe Ala Arg Thr Leu Leu Glu Phe Leu Ile Gly
                405                 410                 415
Arg Ser Lys Thr Asp Pro Glu Ile Ile Glu Ala Trp Ala Ala Phe Thr
            420                 425                 430
Tyr Ile Asn Arg Gln Ile Thr Asp Leu Thr Leu Leu Leu Pro Asn Lys
        435                 440                 445
Ser Glu Asp Glu Gly Lys Lys Ser Arg Val Glu Ile Glu Leu Asp Arg
    450                 455                 460
Leu Arg Ala Glu Ser Glu Lys Arg Pro Met Pro Asp Ala Gln Ile Ser
465                 470                 475                 480
Gln Val Thr Arg Ser Leu Leu Ser Ala Thr Arg Phe Gln Ile Asp Pro
                485                 490                 495
Glu Ser Ile Cys Arg Val Ile Pro Glu Asp Ala Val Val Val Glu Met
            500                 505                 510
Asn Leu Ser Arg Gly Gly Leu Ile Leu Phe Cys Leu Thr Thr Ala Gly
        515                 520                 525
Val Val Ser Ile His Gln Ser Glu Arg Thr Ile Leu Asp Leu Arg Arg
    530                 535                 540
Gln Val Leu Arg Tyr Val Lys Arg Leu Glu Asn Asp Gln Cys Ser Arg
545                 550                 555                 560
Asp Glu Leu Ser Ser Leu Ile Met Gly Ile Ser Arg Glu Ile Ile His
                565                 570                 575
Pro Phe Glu Glu Val Ile Trp Gln Lys Asp His Val Ile Phe Val Pro
            580                 585                 590
Thr Gln Glu Phe Asn Phe Phe Pro Phe Ser Ala Leu Thr Phe Asn Asp
        595                 600                 605
Lys Pro Leu Phe Leu Glu Lys Ala Val Ser Gln Val Pro Ser Leu Ala
    610                 615                 620
Thr Leu Glu Gln Ile Val Lys Arg Pro His Pro Gly Met Leu Pro Glu
625                 630                 635                 640
Leu Ser Thr Ile Val Asn Thr His Glu Pro Asp Ala Ser Gly Pro Lys
                645                 650                 655
His Ala Gly Glu Pro Val Pro Met Val Gly Val Gly Ala Ala Val Val
            660                 665                 670
Ser His Ile Phe Ser Val Pro Pro Thr Asp Ala Arg Tyr Leu Glu Glu
        675                 680                 685
Thr Gly Phe Lys Asn Ile Phe Glu Asn Ser Glu Ile Val Tyr Ile Gly
    690                 695                 700
Thr His Gly Ala Lys His Glu Leu Ser Pro Trp Gln Ser Cys Ile Asn
705                 710                 715                 720
Leu Lys Asp Glu Phe Arg Val Met Glu Val Ala Lys Phe Ser Xaa Lys
```

```
                725                 730                 735
Ala Ser Leu Ile Ile Phe Gly Ser Met His Val Gly Pro Trp Pro Arg
            740                 745                 750
Tyr Cys Trp
        755

<210> 29957
<211> 115
<212> PRT
<213> A.fumigatus

<400> 29957
Gln Ile Leu Gly Asp Thr Arg Met His Arg Leu Ile Ser Leu Met Glu
1               5                   10                  15
Ile Ala Val Met Leu Pro Leu Ser Leu Ala Met Tyr Thr Asp Asn Gly
            20                  25                  30
Arg Leu Thr Ile Val Asp Gly Ile Asn Tyr Tyr Ile Asp Gly Leu Pro
        35                  40                  45
Val Ser Arg Leu Ser Val Pro Leu Pro Leu Asn Ser Thr Trp Ile Asp
    50                  55                  60
Ala Gly Phe Asp Leu Ile Pro Val Thr Val Val Gln Ser Arg Asn Ala
65                  70                  75                  80
Asn Phe Thr Trp Gln Asp Met Gln Glu Thr Ile Ser Arg Phe Thr Met
                85                  90                  95
Glu Asp Asp Val Phe Gln Pro Gly Phe Leu Glu Gly Asn Arg Cys Thr
            100                 105                 110
Arg Leu Glu
        115

<210> 29958
<211> 116
<212> PRT
<213> A.fumigatus

<400> 29958
Leu Cys Ala His Asp Asn Ile Ala Ile Phe Leu Asn His Ala Ala Tyr
1               5                   10                  15
Asn Gln Gly Tyr Leu Ile Asn Ala His Asn Leu Ser Ala Tyr Gly Asn
            20                  25                  30
Ile Asn Lys Lys Val Ile Phe Ala Thr Pro Gly Tyr His Ser Arg Asp
        35                  40                  45
Pro Ile Val Gln Ala Ser Leu Asp Gly Asp Val Pro Glu Gly Pro Tyr
    50                  55                  60
Phe Leu Ala Val Gly Thr Gly Ala Leu Tyr Gln Ala Phe Arg Leu Tyr
65                  70                  75                  80
Pro Asp His Gln Leu Ala Phe Thr Glu Ala Ala Val Ser Asp Gly Asn
                85                  90                  95
Gly Gly Phe Arg Pro Leu Pro Ala Val Thr Asp Val Ser Ile Ser His
            100                 105                 110
Ala Trp Ile Leu
        115

<210> 29959
<211> 184
<212> PRT
<213> A.fumigatus
```

<400> 29959
His Thr Ser Gln Leu Arg Leu Gly Ile Lys Asp Ile Phe Asp Leu Ala
1 5 10 15
Gly Leu Arg Thr Gly Gly Gly Asn Arg Ala Phe Tyr Asn Leu Tyr Pro
20 25 30
Pro Arg Asn Thr Thr Ala Pro Ala Ile Gln Arg Leu Ile Asp Ala Gly
35 40 45
Ala Ile Val Val Gly Lys Met Gly Thr Val Gln Phe Ala Asn Gly Asp
50 55 60
Asn Pro Thr Ala Asp Trp Val Asp Phe His Cys Pro Phe Asn Pro Arg
65 70 75 80
Val Tyr Gly Pro Leu Cys Pro Leu Val Ser Ile Leu Pro Leu Arg Ile
85 90 95
Tyr Val Asp Ile Asp Ala Leu Cys Arg Val Thr Asp Ile Asn Arg Pro
100 105 110
Ala Ala Pro His Arg Gly Pro Arg Pro Gly Leu Arg Arg Thr Ser Gly
115 120 125
Leu Ile Ser Leu Leu Glu Val Ile Arg Ala Asp Gln Cys Ala Ile Pro
130 135 140
Leu Asp Cys Lys Gly Ser Thr Glu Ile Gly Arg Gln Pro Glu Leu Leu
145 150 155 160
Pro Trp Arg Gly Phe Cys Arg Tyr Ala Met Cys Trp Ile Arg Pro Gly
165 170 175
Cys Leu Pro Gly Met Pro Glu Arg
180

<210> 29960
<211> 76
<212> PRT
<213> A.fumigatus

<400> 29960
Arg His Met Asn Met Arg Asn Lys Leu Asn Cys Cys Ser Ala Pro Thr
1 5 10 15
Lys Pro Pro Met Gly Phe Lys Asp Gly Arg Ile Ala Thr Met Ala Gly
20 25 30
Val Pro Asp Val Val Val Pro Cys Gly Glu Met Ser Tyr Ala Ser Thr
35 40 45
Val Ser Leu Arg Thr Glu Tyr Leu Pro Val Thr Met Ile Leu Val Gly
50 55 60
Ala Lys Gly Ile His Leu Met Pro Cys His Leu Gly
65 70 75

<210> 29961
<211> 121
<212> PRT
<213> A.fumigatus

<400> 29961
Thr Tyr Ala Ile Leu Thr Ser Val His Gln Tyr Lys Thr Leu Ala Leu
1 5 10 15
Ser Phe Phe Thr Asp Tyr Ala Ala Lys His Asn Gly Ser Gln Pro Tyr
20 25 30
Ile Asn Pro Gly Pro Arg Val Arg Trp Ala Trp Gly Gln Glu Asn Gly
35 40 45

```
Gly Asp Thr Gly Tyr Glu Met Ala Leu Arg Asn Lys Thr Ile Phe Lys
    50                  55                  60
Asp Trp Trp Glu Ser His Gly Tyr Gly Val Pro Asn Glu Asp Thr Cys
65                  70                  75                  80
Ser Glu Gly Ile Tyr Ile Tyr Pro Tyr Ser Thr Gly Lys Thr Gln Tyr
                85                  90                  95
Arg Asp Val Tyr Thr Arg Tyr Val Leu Tyr Ser Ser Arg His Cys Thr
            100                 105                 110
Asp Val Glu Glu Ser Cys Glu Asp Thr
        115                 120
```

<210> 29962
<211> 177
<212> PRT
<213> A.fumigatus

```
<400> 29962
Arg Ser Met Gln Gly Asp Gly Tyr Gln Ser Pro Gly Gly Ser Ser Ser
1               5                   10                  15
Gly Pro Ala Ser Gly Ile Ala Ser Tyr Glu Trp Leu Asp Ile Ala Val
            20                  25                  30
Gly Ser Asp Thr Gly Gly Ser Met Arg Asn Pro Ala Gly Leu Gln Gly
        35                  40                  45
Ile Tyr Gly Asn Arg Pro Ser Thr Gly Ala Val Ala Met Glu Gly Val
    50                  55                  60
Leu Pro Leu Cys Asp Val Leu Asp Thr Ala Gly Val Phe Ala Arg Asp
65                  70                  75                  80
Ala Arg Thr Leu Ser Thr Val Leu His Ala Trp Tyr Gln Asp Ser Asp
                85                  90                  95
Lys Ala Tyr Lys Gly Tyr Pro Arg Arg Leu Phe Tyr Pro Asn Ala Ser
            100                 105                 110
Phe Pro Asp Ser Thr Thr Glu Ala Gly Ala Leu Leu Glu Glu Val Val
        115                 120                 125
Thr Gly Ile Glu Gly Phe Leu Arg Leu Arg Arg Glu Val Val Asp Thr
    130                 135                 140
Pro Ser Arg Trp Ala Glu Thr His Pro Ser Gly Thr Pro Ser Asn Ile
145                 150                 155                 160
Thr Gln Leu Leu Asn Thr Val Ser Ser Ile Gly Leu Thr Thr Lys Ser
                165                 170                 175
Trp
```

<210> 29963
<211> 82
<212> PRT
<213> A.fumigatus

```
<400> 29963
Cys Glu Asp Cys Val Cys Leu Ile Gly Ile Val Ser Tyr His Asp Phe
1               5                   10                  15
Val Val Lys Pro Ile Glu Leu Thr Val Phe Asn Ser Cys Val Ile Leu
            20                  25                  30
Leu Gly Val Pro Asp Gly Cys Val Ser Ala His Arg Glu Gly Val Ser
        35                  40                  45
Thr Thr Ser Leu Leu Asn Leu Lys Asn Pro Ser Ile Pro Val Thr Thr
    50                  55                  60
```

Ser Ser Arg Arg Ala Pro Ala Ser Val Val Leu Ser Gly Asn Asp Ala
65 70 75 80
Leu Gly

<210> 29964
<211> 83
<212> PRT
<213> A.fumigatus

<400> 29964
Arg Gly Gln Pro Arg Asn Leu Leu Leu Thr Gly Met Trp Gln Lys Gly
1 5 10 15
Asp Thr Pro Leu Leu Glu Asp Phe Glu Ile Ile Lys Tyr Gln Cys Asn
20 25 30
Met Ala Thr Glu Thr Pro Met Lys Ser His Val Asp Asn Gly His Leu
35 40 45
Ser Pro His Gly Thr Asp Pro Cys Thr Trp Ala His His Gly Ala Thr
50 55 60
Ser Val Glu Pro Gly Leu Asp Ser Leu Leu Glu Ser Arg Asn Arg Lys
65 70 75 80
Asp Asp Ala

<210> 29965
<211> 105
<212> PRT
<213> A.fumigatus

<400> 29965
Ser Leu Ser Leu Cys Trp Thr Leu Phe Ile Tyr Val Pro Val Phe Leu
1 5 10 15
Pro Ser Ala Pro Asp Ala Asp Cys Ala Ile Cys Val Arg Leu Gln Ala
20 25 30
Met Pro Leu Phe Ser Asp Tyr Gly Asp His Pro Asp Ser Ser Ala Arg
35 40 45
Leu Ser Tyr Pro Ser Leu Val Phe Ala Ile Val Thr Pro Leu Val Val
50 55 60
Ile Ala Arg Leu Leu Gly Arg Arg Phe Leu Ser Gly Arg Val Gly Ala
65 70 75 80
Asp Asp Trp Thr Ile Leu Val Ser Cys Val Arg Ile Ser Asn Gly Gly
85 90 95
Trp Leu Ser Thr Tyr Ile Asp Ser Ser
100 105

<210> 29966
<211> 184
<212> PRT
<213> A.fumigatus

<400> 29966
Cys Ser Thr Ala Asn Glu Arg Val Val Cys Gly Trp Ala Phe Gly Lys
1 5 10 15
His Gln Asn Glu Met Pro Lys Glu Leu Val Leu Arg Thr Leu Lys Val
20 25 30
Ser Pro Ser Asn Ala Asp Pro Leu Ala Thr Gly Ser Ser Gln Arg Gln

```
        35                  40                  45
Leu Tyr Phe Val Ala Gln Ile Leu Tyr Lys Val Asn Leu Gly Leu Thr
    50                  55                  60
Lys Ile Ser Ile Leu Leu Leu Tyr Ile Arg Leu Phe Val His Gln Trp
65                  70                  75                  80
Phe Leu Arg Thr Cys Trp Val Trp Ile Ala Ile Ile Val Ser Phe Thr
                85                  90                  95
Ile Gly Thr Val Phe Ser Ser Ile Phe Gln Cys Thr Pro Val Gln Trp
            100                 105                 110
Ala Phe Asn Lys Ser Leu Pro Asp Arg Gly Thr Cys Ile Asn Met Thr
        115                 120                 125
Ala Phe Trp Tyr Ala Asn Ala Ala Phe Asn Ile Leu Thr Asp Leu Val
    130                 135                 140
Val Ile Ala Leu Pro Ile Pro Val Val Leu Lys Leu Gln Leu Pro Pro
145                 150                 155                 160
Lys Ser Lys Ile Ala Leu Cys Gly Ile Phe Ala Val Gly Leu Leu Trp
                165                 170                 175
Val Ala Ser Leu Gly Pro Cys Ile
            180
```

<210> 29967
<211> 81
<212> PRT
<213> A.fumigatus

<400> 29967

```
Leu Val Leu Asp Thr Asp Val Leu Thr Gly Ser Thr Cys Ile Thr Ser
1               5                   10                  15
Val Leu Arg Ile Thr Thr Leu Asn Val Ala Thr Asn His Leu Asp Thr
            20                  25                  30
Thr Trp Asn Ser Ile Gly Ser Ser Met Trp Thr Val Ile Glu Ser Asn
        35                  40                  45
Leu Gly Ile Ile Cys Ala Cys Leu Pro Ala Leu Arg Arg Pro Leu Ser
    50                  55                  60
Phe Phe Phe Pro Arg Leu Phe Ser Arg Leu His Lys Ser Ser Ala Ala
65                  70                  75                  80
Pro
```

<210> 29968
<211> 165
<212> PRT
<213> A.fumigatus

<400> 29968

```
Glu Val Ser Phe Phe Ser Ser Pro Val Val Ser Lys Arg Ile Arg Ile
1               5                   10                  15
Ser Ser Ser Ile Leu Gly Gln Ser Cys Leu Ala Ala Met Glu Lys Gln
            20                  25                  30
Pro Asn His Glu Val Ser Gln Thr Gly Ser Ser Leu Glu Thr Ala Ala
        35                  40                  45
Pro Glu Ile Glu Val Asn Glu Lys Arg Glu Lys Ala Leu Leu Arg Lys
    50                  55                  60
Ile Asp Leu His Leu Met Val Pro Leu Trp Val Ile Phe Val Phe Gly
65                  70                  75                  80
Phe Leu Asp Arg Ile Asn Leu Gly Asn Val Ala Val Leu Gly Ile Leu
```

```
                85                  90                  95
Gln Glu Leu Lys Met Asp Gly Lys Asp Asn Gly Ala Cys His Ala Arg
            100                 105                 110
Ser Phe Phe Gly Pro Asp Ile Asn Arg Gly Tyr Pro Glu Pro Tyr Cys
        115                 120                 125
Ala Ser Ser Gly Leu Arg Arg Pro Thr Leu Asn Lys Gly Leu Asn Phe
    130                 135                 140
Leu Pro Gly Gly Ser Asn Gln Thr Pro Pro Leu Leu Cys Asn Pro Phe
145                 150                 155                 160
Ser Thr Leu Asp Arg
                165
```

<210> 29969
<211> 222
<212> PRT
<213> A.fumigatus

<400> 29969

```
Gly Cys Arg Arg Ala Leu Val Gln Ser Ala Glu Glu Pro Arg Lys Glu
1               5                   10                  15
Lys Gly Glu Arg Thr Ala Gln Gly Gly Glu Thr Gly Ala Asp Asp Ala
            20                  25                  30
Glu Val Gly Phe Asp Asp Gly Pro His Gly Arg Ala Asp Ala Val Pro
        35                  40                  45
Gly Gly Val Glu Val Val Gly Gly Asp Val Glu Gly Gly Asp Ala Gln
    50                  55                  60
Asp Gly Gly Asp Ala Gly Ala Ala Gly Gln Asn Ile Ser Ile Gln Tyr
65                  70                  75                  80
Gln Leu Ser Asp Ala Trp Thr Gln Gly Gly Asn Pro Gln Lys Thr His
                85                  90                  95
Gly Glu Tyr Ala Ala Glu Gly Asp Leu Gly Leu Gly Arg Glu Leu Gln
            100                 105                 110
Leu Gln His Asp Gly Asp Gly Gln Arg Asp His Asp Gln Val Gly Glu
        115                 120                 125
Asp Val Glu Cys Gly Val Gly Val Pro Glu Gly Arg His Val Asp Ala
    130                 135                 140
Gly Ala Ala Val Trp Glu Gly Leu Val Glu Gly Pro Leu His Arg Gly
145                 150                 155                 160
Ala Leu Glu Asp Ala Gly Glu Asp Gly Ala Asp Gly Glu Gly Asp Asp
                165                 170                 175
Asp Gly Asp Pro His Pro Ala Gly Pro Gln Glu Pro Leu Met Asp Lys
            180                 185                 190
Gln Ser Asp Val Gln Glu Glu Asn Ala Asp Leu Gly Gln Ala Glu Val
        195                 200                 205
Asp Leu Val Glu Asp Leu Gly His Glu Ile Glu Leu Ser Leu
    210                 215                 220
```

<210> 29970
<211> 340
<212> PRT
<213> A.fumigatus

<400> 29970

```
Pro Ile Cys Phe Pro Lys Pro Asp Asp Trp Ser Asn Val Glu Asn Arg
1               5                   10                  15
Pro Ser Pro Thr Ala Gln Ile Val Gln Pro Lys Arg Met His Ser Leu
```

```
            20                  25                  30
Tyr Arg Pro Ile Gln Trp Thr Thr Ser Pro Glu Ala Val Leu Leu Ala
        35                  40                  45
Ala Thr Ile Tyr Gln Pro Val Ser Val Cys Lys Gly Arg Arg Gly His
    50                  55                  60
Thr Leu Gln Gln Cys Asp Gly Gln Gln His Gly Ala Gly Leu Asp Gly
65                  70                  75                  80
Arg Val Pro Lys Asp Gln Leu Val Glu Gly Arg Asp Ile Val His Leu
                85                  90                  95
His Gln Glu Ile Pro Ser Ile Asp Lys His Gly Gln Thr Arg Ala Val
            100                 105                 110
Asp Asp Pro Arg Ala Glu Asp Met His Arg Asp Gln Trp Lys Arg Gly
        115                 120                 125
Pro Phe Pro Leu Pro Gln His Glu Arg His Ala Asp Gly His Ala His
    130                 135                 140
Asp Glu Gly Ser Asn His Met Arg Arg Val Pro Gly Val Leu Ala Ser
145                 150                 155                 160
Thr Pro Val Gln Ala Gln Gln Gln Tyr Ser Arg Pro Ala Glu Cys Gln
                165                 170                 175
Arg Arg Ala Asp Lys Ile His Arg Arg Gln Leu His Leu Pro Arg Ala
            180                 185                 190
Arg Asp Leu Ala Gln Gly His Glu Glu Glu His Ala Gln Arg Arg Glu
        195                 200                 205
His Gly Glu Trp Glu Ile Glu Pro Glu Asp Pro Pro Pro Arg Leu Leu
    210                 215                 220
Leu Asp Arg Cys Gly Cys Glu Arg Ala Ser Asp His Gly Pro Asp Ala
225                 230                 235                 240
Val Arg Asp Arg Glu His Cys Ala Glu Asn Thr Leu Ile Phe Thr Ser
                245                 250                 255
Phe Ala Gln Arg Asp His Val Ala Asp Asp His Leu Gly Asp Gly His
            260                 265                 270
Lys Ala Ala Ala Ala Asp Ala Ser Glu Gly Ala Glu Asp Asp Glu Leu
        275                 280                 285
Gly Gly Cys Leu Gly Glu Gly Gly Gly Gln Arg Ala Glu Glu Glu Asp
    290                 295                 300
Gly Glu Ala Gly Glu Glu Asp Val Phe Ala Gly Pro Asp Val Gly Glu
305                 310                 315                 320
Ala Ala Val Glu Gln Leu Glu Ala Gly Gly Cys Thr Gly Leu Ser Ala
                325                 330                 335
Ala Arg Arg Thr
            340
```

<210> 29971
<211> 70
<212> PRT
<213> A.fumigatus

<400> 29971

```
Tyr Leu Pro Leu Ser Arg Ser Gly Thr Thr Ser Leu Thr Ile Ile Trp
1               5                   10                  15
Ala Thr Val Ile Arg Pro Pro Pro Pro Met Pro Val Lys Ala Arg Lys
            20                  25                  30
Met Met Ser Trp Val Ala Val Trp Ala Arg Glu Ala Ala Ser Glu Pro
        35                  40                  45
Lys Lys Lys Met Ala Arg Pro Ala Lys Arg Thr Tyr Leu Arg Asp Gln
    50                  55                  60
```

```
Met Ser Glu Arg Arg Pro
65                  70

<210> 29972
<211> 61
<212> PRT
<213> A.fumigatus

<400> 29972
Asp Lys Gln Ile Phe Leu Ala Cys Ser Thr Val Asp Leu Val Ala Leu
1               5                  10                  15
Met Asp Gln Thr Thr Leu Ala Ala Ser Leu Ser Ile Val Gly Asn Ala
            20                  25                  30
Leu Asn Ala Ser Asn Gln Thr Ser Trp Ile Ser Gly Ala Tyr Phe Val
        35                  40                  45
Tyr Val Lys Ile Leu Ala Ser Ser Ser Pro Ala Cys Cys
    50                  55                  60

<210> 29973
<211> 288
<212> PRT
<213> A.fumigatus

<400> 29973
Gln Ala Ser Thr Ser Thr Cys Phe Gln Leu Leu Tyr Gly Arg Leu Ser
1               5                  10                  15
Asp Ile Trp Ser Arg Lys Tyr Val Leu Phe Ala Gly Leu Ala Ile Phe
            20                  25                  30
Phe Phe Gly Ser Leu Ala Ala Ser Leu Ala Gln Thr Ala Thr Gln Leu
        35                  40                  45
Ile Ile Phe Arg Ala Phe Thr Gly Ile Gly Gly Gly Gly Leu Met Thr
    50                  55                  60
Val Ala Gln Met Ile Val Ser Asp Val Val Pro Leu Arg Glu Arg Gly
65                  70                  75                  80
Lys Tyr Gln Gly Ile Leu Gly Ala Val Phe Ala Ile Ala Asn Gly Ile
                85                  90                  95
Gly Pro Val Ile Gly Gly Ala Leu Ala Ser Ala Ser Ile Glu Lys Glu
            100                 105                 110
Ser Trp Arg Trp Ile Phe Arg Leu Asn Leu Pro Leu Thr Val Leu Thr
        115                 120                 125
Thr Leu Cys Val Phe Phe Phe Met Pro Leu Arg Lys Val Thr Gly Ser
    130                 135                 140
Trp Lys Val Lys Leu Ala Ala Val Asp Phe Val Gly Ala Ala Leu Ala
145                 150                 155                 160
Leu Ser Gly Thr Ala Val Leu Leu Leu Gly Leu Asn Trp Gly Gly Gly
                165                 170                 175
Glu Tyr Ala Trp Asp Ser Ala His Val Ile Ala Thr Leu Val Val Gly
            180                 185                 190
Val Ala Val Cys Val Ala Phe Val Leu Trp Gln Trp Lys Gly Ala Ala
        195                 200                 205
Phe Pro Leu Val Pro Met His Ile Phe Arg Ser Arg Ile Val Asn Gly
    210                 215                 220
Ala Cys Leu Thr Met Phe Ile Asn Gly Trp Asn Phe Leu Val Gln Val
225                 230                 235                 240
Tyr Tyr Ile Pro Thr Phe Tyr Gln Leu Val Phe Gly Tyr Ser Thr Val
                245                 250                 255
```

```
Lys Ala Gly Ala Met Leu Leu Pro Ile Thr Leu Leu Gln Ser Met Ser
            260                 265                 270
Ser Pro Pro Leu Ala Asp Arg His Gly Leu Ile Asp Gly Ser Arg Gln
        275                 280                 285

<210> 29974
<211> 208
<212> PRT
<213> A.fumigatus

<400> 29974
Asp Gln Pro Leu Leu Arg Leu Pro His Glu Leu Ala Arg Arg Asn Phe
1               5                   10                  15
Lys Ser Val Gln Arg Leu Val Glu Arg Glu Arg Glu Tyr Val Ile Pro
            20                  25                  30
Ala Leu Lys Glu Ala Ala Asn Ala Ser Leu Ser Asn Ala Gln Thr Pro
        35                  40                  45
Asp Gln Thr Leu Ala Ala Leu Asp Ser Met Leu Ala Arg Met Gln Asn
    50                  55                  60
Leu Lys Arg Lys Met Glu Ser Ile Gln Gln Glu Glu Lys Lys Val Gln
65                  70                  75                  80
Asn Gln Ser Arg Lys Arg Ile Gln His Leu Glu His Leu His Gln Ile
                85                  90                  95
Pro Ser Leu Ala Asp Val Lys Tyr Asp Gln Trp Ser Arg Ile Arg Leu
            100                 105                 110
Asp Arg Leu Val Val Asp His Met Leu Arg Ser Gly Tyr Thr Glu Ser
        115                 120                 125
Ala Gln Gln Leu Ala Gln Glu Lys Gly Ile Glu Asp Leu Val Asp Leu
    130                 135                 140
Asp Val Phe Val Gln Cys Gln Arg Ile Ala Gln Ser Leu Arg Arg Gly
145                 150                 155                 160
Glu Thr Lys Asp Ala Leu Gln Trp Cys Asn Glu Asn Lys Ala Ala Leu
                165                 170                 175
Lys Lys Ser Gln Val Cys Gly Val His Met Asn Asn Ser Cys Val Ser
            180                 185                 190
Asp Pro Val Ser Phe Ser Asn Lys Pro Asp Thr Val Gln Ser Arg Val
        195                 200                 205

<210> 29975
<211> 151
<212> PRT
<213> A.fumigatus

<400> 29975
Ile Leu Gln Leu Thr Asp Leu Gln Ser Met Tyr Ser Phe Asp Arg Trp
1               5                   10                  15
Asn Tyr Leu Ser Asp Leu Phe Ile Arg Thr His His Glu Leu Leu Ser
            20                  25                  30
Leu Pro Ser Ser Pro Leu Leu His Ile Ala Leu Ser Ala Gly Leu Ser
        35                  40                  45
Ala Leu Lys Thr Pro Ser Cys His Ser Ala Tyr Thr Ser Ser Ser Ser
    50                  55                  60
Asn Ser Leu Ser Thr Thr Thr Ser Val Cys Pro Ile Cys Ser Thr Glu
65                  70                  75                  80
Leu Asn Glu Leu Ala Arg Asn Met Pro Tyr Ala His His Ala Lys Ser
                85                  90                  95
```

```
Tyr Val Glu Ser Asp Pro Ile Val Leu Pro Asn Gly Arg Ile Tyr Gly
            100                 105                 110
Gln Gln Arg Leu Leu Asp Met Ser Lys Lys Leu Gly Cys Val Glu Thr
        115                 120                 125
Gly Lys Val Lys Asp Pro Thr Thr Gly Glu Ile Phe Asp Lys Ser Glu
    130                 135                 140
Met Lys Lys Val Tyr Ile Met
145                 150
```

<210> 29976
<211> 760
<212> PRT
<213> A.fumigatus

<400> 29976

```
Thr Arg Trp Val Lys Ser Leu Ser Phe Ile Gly Ser Ile Asn Gly Lys
1               5                   10                  15
Val Tyr Asp Leu Thr Arg Tyr Ile Ala Gly Gly Arg Leu Thr Lys Ala
            20                  25                  30
Leu Pro Gly Glu Thr Val Pro Ser Asp Val Asp Thr Asp Phe Met Asp
        35                  40                  45
Asn Ser Val Val Ser Leu Phe Gln Ser Leu Pro Gly Gln Asp Leu Ser
    50                  55                  60
Lys His Trp Glu Asn Leu Lys Ile Asp Pro Ala Leu Arg Arg Arg Met
65                  70                  75                  80
Gln Leu Cys Leu Asp Asn Leu Phe Phe Val Gly His Val Asp Thr Arg
                85                  90                  95
Asn Ser Ala Gln Cys Glu Phe Ala Arg Tyr Phe Ile Leu Val Ile Ser
            100                 105                 110
Val Leu Ile Cys Ser Ile Ile Val Phe Lys Phe Leu Ala Ala Leu Gln
        115                 120                 125
Phe Gly Arg Lys Asn Val Pro Glu Asn Leu Asp Lys Phe Ile Ile Cys
    130                 135                 140
Gln Val Pro Ala Tyr Thr Glu Asp Glu Glu Ser Leu Arg Arg Ala Ile
145                 150                 155                 160
Asp Ser Met Ala Arg Met Arg Tyr Asp Asp Lys Arg Lys Leu Leu Val
                165                 170                 175
Val Ile Cys Asp Gly Met Ile Ile Gly Gln Gly Asn Asp Arg Pro Thr
            180                 185                 190
Pro Arg Ile Val Leu Asp Ile Leu Gly Val Pro Glu Ser Val Asp Pro
        195                 200                 205
Glu Pro Leu Ser Phe Glu Ser Leu Gly Glu Gly Gln Lys Gln His Asn
    210                 215                 220
Met Gly Lys Val Tyr Ser Gly Leu Tyr Glu Val Gln Gly His Ile Val
225                 230                 235                 240
Pro Phe Leu Val Ile Val Lys Val Gly Lys Pro Ser Glu Val Ser Arg
                245                 250                 255
Pro Gly Asn Arg Gly Lys Arg Asp Ser Gln Met Val Leu Met Arg Phe
            260                 265                 270
Leu Asn Arg Val His Tyr Asn Leu Pro Met Ser Pro Met Glu Leu Glu
        275                 280                 285
Met His His Gln Ile Arg Asn Val Ile Gly Val Asn Pro Thr Phe Tyr
    290                 295                 300
Glu Phe Ile Leu Gln Val Asp Ala Asp Thr Val Val Ala Pro Asp Ser
305                 310                 315                 320
Ala Thr Arg Met Val Ala Ala Phe Leu Asn Asp Thr Arg Leu Ile Gly
```

```
                325                 330                 335
Val Cys Gly Glu Thr Ala Leu Thr Asn Ala Lys Thr Ser Ala Val Thr
            340                 345                 350
Met Ile Gln Val Tyr Glu Tyr Tyr Ile Ser His Asn Leu Thr Lys Ala
        355                 360                 365
Phe Glu Ser Leu Phe Gly Ser Val Thr Cys Leu Pro Gly Cys Phe Thr
    370                 375                 380
Met Tyr Arg Ile Arg Ser Ala Glu Thr Ala Lys Pro Leu Phe Val Ser
385                 390                 395                 400
Lys Glu Val Val Asp Ala Tyr Ala Glu Ile Arg Val Asp Thr Leu His
                405                 410                 415
Met Lys Asn Leu Leu His Leu Gly Glu Asp Arg Tyr Leu Thr Thr Leu
            420                 425                 430
Leu Leu Lys His His Ser Lys Tyr Lys Thr Lys Tyr Ile Ser Ser Ala
        435                 440                 445
Lys Ala Trp Thr Ile Ala Pro Glu Ser Trp Thr Val Phe Leu Ser Gln
    450                 455                 460
Arg Arg Arg Trp Ile Asn Ser Thr Val His Asn Leu Ile Glu Leu Ile
465                 470                 475                 480
Pro Met Gln Gln Leu Cys Gly Phe Cys Cys Phe Ser Met Arg Phe Val
                485                 490                 495
Val Phe Val Asp Leu Leu Ser Thr Val Ile Gln Pro Val Thr Leu Ala
            500                 505                 510
Tyr Ile Ile Tyr Leu Ile Tyr Trp Leu Val Lys Asp Thr Ser Thr Ile
        515                 520                 525
Pro Tyr Thr Ser Leu Ile Leu Leu Ala Ala Ile Tyr Gly Leu Gln Ala
    530                 535                 540
Leu Ile Phe Ile Ile Arg Arg Lys Trp Glu Met Val Gly Trp Met Ile
545                 550                 555                 560
Val Tyr Leu Leu Ala Leu Pro Val Phe Ser Leu Ala Leu Pro Leu Tyr
                565                 570                 575
Ser Phe Trp His Met Asp Asp Phe Thr Trp Gly Asn Thr Arg Ile Ile
            580                 585                 590
Thr Gly Glu Lys Gly Arg Lys Val Val Ile Ser Asp Glu Gly Lys Phe
        595                 600                 605
Asp Pro Ala Ser Ile Pro Lys Lys Lys Trp Glu Glu Tyr Gln Thr Glu
    610                 615                 620
Leu Trp Glu Ala Gln Thr Ser Arg Asp Asp Arg Ser Glu Val Ser Gly
625                 630                 635                 640
Ile Ser Tyr Gly Thr Lys Ser Tyr His Pro Ala Gln Ser Glu Tyr Gly
                645                 650                 655
Phe Pro Gly Ser Arg Pro Met Ser Gln Leu Asp Leu Pro Arg Phe Gly
            660                 665                 670
Ser Arg Met Ser Leu Ala Pro Ser Glu Met Met Ser Arg His Ala Asp
        675                 680                 685
Met Glu Met Glu Asn Leu Ser His Leu Pro Ser Asp Asp Ala Ile Leu
    690                 695                 700
Ala Glu Ile Arg Glu Ile Leu Arg Thr Ala Asp Leu Met Ser Val Thr
705                 710                 715                 720
Lys Lys Ser Ile Lys Leu Glu Leu Glu Arg Arg Phe Gly Val Asn Leu
                725                 730                 735
Asp Leu Lys Arg Pro Tyr Ile Asn Ser Gly Lys Gly Tyr Thr Phe Pro
            740                 745                 750
Phe Pro Val Leu Arg Thr Val Cys
        755                 760
```

<210> 29977
<211> 142
<212> PRT
<213> A.fumigatus

<400> 29977
Lys Glu Asp Cys Pro Thr Phe Arg Ser Asn Gly Pro Gly Phe Gly Ala
1 5 10 15
Arg Asp Val Leu Arg Leu Val Leu Gly Val Val Leu Glu Glu Lys Cys
20 25 30
Ser Gln Val Pro Ile Leu Thr Gln Met Lys Gln Ile Leu His Val Lys
35 40 45
Cys Ile Asn Thr Asn Leu Ser Val Ser Val His Asp Leu Leu Ala Asp
50 55 60
Glu Gln Trp Leu Gly Arg Phe Cys Arg Ala Asn Ser Ile His Arg Glu
65 70 75 80
Thr Ser Arg Gln Thr Arg Asn Gly Pro Glu Lys Thr Leu Glu Ser Phe
85 90 95
Arg Glu Val Val Arg Tyr Val Val Leu Ile Asn Leu Asn His Ser His
100 105 110
Arg Arg Ser Leu Ser Ile Gly Gln Ser Ser Phe Thr Thr Asp Thr Asn
115 120 125
Lys Thr Ser Ile Ile Gln Glu Arg Ser His His Pro Cys Cys
130 135 140

<210> 29978
<211> 78
<212> PRT
<213> A.fumigatus

<400> 29978
Ile Ser Ser Asp Arg Ile Leu Pro Ile Leu Ala Leu Leu Phe Leu Cys
1 5 10 15
Ser Phe Leu Asp Arg Trp Gly Asn Arg Met Pro Leu Ile Ser Ala Arg
20 25 30
Leu Lys Ile Asp Pro Asn Val Pro Ser Arg Thr Asn Val Gly Asn Ala
35 40 45
Lys Ile Leu Gly Leu Gln Asn Asp Leu Asn Ile Thr Gly His Gln Tyr
50 55 60
Asp Ile Gly Leu Thr Val Phe Tyr Leu Thr Tyr Ile Cys Arg
65 70 75

<210> 29979
<211> 97
<212> PRT
<213> A.fumigatus

<400> 29979
Thr Arg Ala Asp Ser Glu Leu Pro Ser Asn Leu Ile Ile Lys Lys Ala
1 5 10 15
Ser Pro Lys Ile Trp Leu Pro Thr Leu Thr Met Val Trp Gly Ile Ile
20 25 30
Thr Met Cys Leu Gly Phe Val Arg Asn Phe Ala Gly Phe Val Ala Val
35 40 45
Arg Ala Ile Leu Gly Val Ala Glu Gly Gly Leu Leu Pro Gly Met Val
50 55 60

Cys Glu Ala Tyr Pro Gly Ser Phe Ser Gln Leu Leu Ala Gly Ser Val
65 70 75 80
Pro Val Ser Glu Thr Lys Thr Pro Ser Gly Thr Leu Pro Val Phe Leu
85 90 95
Leu

<210> 29980
<211> 73
<212> PRT
<213> A.fumigatus

<400> 29980
Ser Gln Ile Leu Asn Cys Phe His Ser Gln Cys Ser Leu Tyr Asn Leu
1 5 10 15
Pro Gln His Leu Ala Met Asp Thr Met Lys Pro Ser His Glu Thr Leu
20 25 30
Glu Asp Val Arg His Lys Ser Leu Asp Asn Met Ser Phe Gly Asn Ala
35 40 45
Tyr Gln Gln Lys Leu Thr Arg Ser Ile Leu Phe Lys Leu Asp Thr Arg
50 55 60
Leu Val Arg Phe Asp Val Tyr Gly Gln
65 70

<210> 29981
<211> 67
<212> PRT
<213> A.fumigatus

<400> 29981
Ser Gln Val Gly Ser Leu Ile Ile Asn Arg Ser Asn Met Tyr Ser Val
1 5 10 15
Ala Asp Arg Met Pro Ser Ser Ser Pro Val Ile Val Ala Leu Ile Ser
20 25 30
Asp Arg Leu Gln Leu Arg Gly Val Ile Met Leu Phe Ile Leu Pro Ile
35 40 45
Ala Ile Ala Gly Tyr Gly Ala Ile Ala Asn Ile Glu Ser Val Arg Val
50 55 60
Lys Tyr Gly
65

<210> 29982
<211> 209
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (17)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 29982
Lys Thr Ile Pro Ser Thr Thr Ser Ser Ala Arg Pro His Pro Thr Arg
1 5 10 15
Xaa Glu Lys Phe Ser Gln Gln Ala Ser Ile Glu Ala Pro Glu Pro Ser
20 25 30

```
Asp Leu Pro Ser Leu Arg Arg Gln His Val Thr Ala Gly Tyr Arg Asp
        35                  40                  45
Gly Val Ser Ala Ala Lys Gly Glu His Val Gln His Gly Phe Asp Ala
    50                  55                  60
Gly Phe Pro Ile Gly Ala Gln Leu Gly Met Arg Ala Gly Thr Val Ile
65                  70                  75                  80
Gly Ile Ile Glu Gly Leu Leu Arg Gly Phe Glu Ser Pro Thr Ala Ser
                85                  90                  95
Arg Ala Val Lys Lys Pro Leu Gln Arg Lys Glu Glu Gly Gln Gly Ile
            100                 105                 110
Glu Pro Asp Glu Ala Lys Ala Ala Arg Gln Ala Lys Arg Glu Gln Leu
        115                 120                 125
Leu Arg Leu Tyr Gln Lys Ala Val Lys Glu Leu Glu Val Arg Ser Val
    130                 135                 140
Phe Ala Gly Ser Glu Asp Glu Ser Thr Arg Asp Asn Gly Gly Gln Glu
145                 150                 155                 160
Lys Pro Tyr Val Val Leu Arg Arg Lys Gly Asp Ala Val Ile Ser Gln
                165                 170                 175
Trp Glu Glu Gln Val Arg Val Ala His Trp Glu Glu Asn Met Ala Ala
            180                 185                 190
Leu Glu Pro Lys Glu Asp Glu Lys Arg Ala Ser Thr Pro Thr Glu Gln
        195                 200                 205
Ile
```

<210> 29983
<211> 102
<212> PRT
<213> A.fumigatus

<400> 29983

```
Pro Arg His Thr Leu Tyr Ile Ser Cys Tyr Arg Thr Val Glu Pro Leu
1               5                   10                  15
Ile Asn Ser Pro Leu Pro His Ala Asn Ala Arg His Asn Arg Asp Ile
            20                  25                  30
Ile Glu Val Ile Ala Leu Gln Leu Gln Leu His Ile Gln His Leu Lys
        35                  40                  45
Ala Thr Arg Pro Ala Arg Asn Thr Thr Leu Leu Val Val Pro Lys Ala
    50                  55                  60
Ser His Asn Tyr Leu Glu Arg Gly Glu Gly Gln Ile Thr Gln Tyr Pro
65                  70                  75                  80
Val Pro Pro Leu Glu Gly Ser Gly Gly Pro Asn Gln Gln Ser Ile Ala
                85                  90                  95
Pro Phe Gln Gly Pro Met
            100
```

<210> 29984
<211> 132
<212> PRT
<213> A.fumigatus

<400> 29984

```
Arg Leu Leu Val Val Phe Thr Phe Arg Cys Gln Gly Val Tyr Pro Val
1               5                   10                  15
Gly Lys Ser Thr Thr Ala Thr Ser Glu Ser Lys Pro Arg Pro Tyr Leu
            20                  25                  30
```

```
Asn Gln Ser Leu Gly Ser Arg Leu Ala Ser Phe Ala Arg Tyr Tyr Ile
        35                  40                  45
Arg Phe Leu Val Ser Asp Lys Ser Cys Arg Asp Leu Ile His Arg Ile
    50                  55                  60
Ala Val Ser Ser Thr Cys Thr Lys Gly Lys Gly Met Ile Ser Gly His
65                  70                  75                  80
Phe His Ala Thr Asn Gly Asn Val Glu Leu Pro Ile Gly Lys His Val
                85                  90                  95
Ala Phe Ser Leu Ala Val Pro Tyr Gln Gly Ser Ala Asp Pro Pro Phe
            100                 105                 110
Ser Gly Asn Arg Ser Ser Gly His Glu Arg Cys Arg Cys Ser Met Val
        115                 120                 125
Thr Gly Lys Cys
    130
```

<210> 29985
<211> 320
<212> PRT
<213> A.fumigatus

<400> 29985

```
Leu Ser Asn Trp Ile Asp Ala Leu Ala Ala Lys Arg Glu Asp Tyr Glu
1               5                   10                  15
Gln Ser Ser Asp Arg Gly Ser Ile Lys Phe Leu Leu Asn Gly Gly Thr
            20                  25                  30
Asp Ser Phe Thr Gln Gln Phe Leu Leu Pro Pro Arg Ser Asp Arg Thr
        35                  40                  45
Arg Ser Leu Glu Tyr His Asn Lys Lys Ser Leu Glu Asp Ala Gly Ser
    50                  55                  60
Ser Ile Leu Gly Tyr Glu Leu Lys Asp Ser Arg Thr Asp Tyr Ala Pro
65                  70                  75                  80
Thr Phe Ile Glu Ser Asp Ala Ala Thr Leu Ser Phe Phe Gln Asp Thr
                85                  90                  95
Phe Ile Asp Phe Phe Asn Gly Pro Phe Gly Asp Pro His Lys Leu Leu
            100                 105                 110
Asp Asp Pro Tyr Val Gly Gln Val Ala Tyr His Ala Val Val Pro Pro
        115                 120                 125
Gly Gln Asp Pro Asn Leu Thr Leu Thr Gly Gln Gln Leu Ser Tyr Glu
    130                 135                 140
Pro Glu Arg Pro Phe Ala Thr Gly Met Ile Gln Ala Ile Leu Ala Arg
145                 150                 155                 160
Ala Trp Ser Val Pro Leu Asp Ala Lys Ala Gln Gln Glu Leu Ser Thr
                165                 170                 175
Asn Leu Asn Phe Leu Leu Thr Thr Ser Arg Ile Arg Lys Phe Val Ala
            180                 185                 190
Met Tyr Phe Lys Tyr Trp Gln Pro Ser Cys Ala Met Leu His Arg Thr
        195                 200                 205
Ser Phe Asp Pro Glu Ile Val Ser Leu Pro Leu Leu Thr Ala Val Thr
    210                 215                 220
Phe Met Gly Ala Met Tyr Thr Asn Asp Glu Arg Glu Ala Tyr Ile Ala
225                 230                 235                 240
Lys Arg Val Leu Asp Phe Ala Glu Leu Phe Ile Phe Ser Ser Glu Val
                245                 250                 255
Tyr Ala Ser Glu Thr Glu Ile Ser Ser Met Phe Cys Gly Asn Arg Cys
            260                 265                 270
Leu Asp Asp Glu Ser Ser Asp Trp Ile Gln Phe Gln Asn Phe Gln Ala
```

```
        275                 280                 285
Gly Phe Ile Ile Val Val Val Gln Tyr Trp Ala Gly Ser Arg Ile Ser
    290                 295                 300
Arg Asn Arg Val Met Glu Asn Arg Phe Ser Glu Val Ile Lys Val Gly
305                 310                 315                 320

<210> 29986
<211> 82
<212> PRT
<213> A.fumigatus

<400> 29986
Ser Thr Ala Ala Ala Ser Ala Ala Ala Glu Gln Pro Gly Arg Asp Trp
1               5                   10                  15
Ser Thr Ser Val Pro Arg Lys Glu Ser Arg Pro Ser Ala Cys His Pro
            20                  25                  30
Arg Cys Arg Trp Pro Ala Val Gln Ala Pro Val Pro Val Glu Cys Thr
        35                  40                  45
Ser Ala Ala Arg Phe Pro Cys Pro Asn Val Asp Trp Trp Gln Thr Ser
    50                  55                  60
Ala Gly Glu Ser Gln Leu Leu Ser Gln Phe Ala Glu His Asp Gln Leu
65                  70                  75                  80
Cys His


<210> 29987
<211> 90
<212> PRT
<213> A.fumigatus

<400> 29987
Phe Pro Ile Cys Lys Lys Asp Asn Met Asn Ala Trp Ser Val Leu Cys
1               5                   10                  15
Asn Pro Ser Asn Val Glu Gly Arg Leu Thr Arg Asp Lys Arg Lys Glu
            20                  25                  30
Ala Leu Thr Gln Thr Met Ala Lys Ala Lys Glu Glu Gln Lys Ser Arg
        35                  40                  45
Arg Glu Ala Glu Val Ser Leu Arg Lys Glu Lys Glu Asp Phe Leu Phe
    50                  55                  60
Phe Tyr Pro Leu Leu Asn Gly Phe Ile Met Ser Pro Gly Ile Pro His
65                  70                  75                  80
Lys Lys Glu Glu Leu Asp Val Ser Gln Pro
                85                  90

<210> 29988
<211> 89
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1),(4),(5),(12)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 29988
Xaa Gly Gly Xaa Xaa Lys Lys Thr Ala Pro Ile Xaa Tyr Gln Tyr Ile
```

```
1               5                   10                  15
Ser Leu Leu Ser Ser Phe Tyr Asn Phe Phe Leu Leu Thr Leu Leu Leu
            20                  25                  30
Ile His Leu His Pro Phe Ser Ser Leu Pro Pro Phe Asn Ser Pro Tyr
        35                  40                  45
Phe Ser Ser Leu Ser Phe Pro Leu Phe Phe Ser His Leu Phe Pro Val
    50                  55                  60
Lys Tyr Ile Phe Trp Lys Gln Pro Asn Asn Asn Val Tyr Ser Tyr Phe
65                  70                  75                  80
Ala Pro Arg Arg Leu Thr Val Ile Gly
                85
```

<210> 29989
<211> 270
<212> PRT
<213> A.fumigatus

<400> 29989

```
Met Cys Leu Leu His Ile Phe Leu Pro Ser Thr Ser Pro Ser Val Arg
1               5                   10                  15
Arg Arg Phe Leu Ile Pro Leu Arg Thr Ser Arg Ser His Leu Leu Ala
            20                  25                  30
Gly Leu Arg Thr Ala Pro Lys Ser Ala Thr Leu Pro Ser Ala Ser Gln
        35                  40                  45
Arg Gln Gln His Leu Gly Leu Glu Thr Gly Arg Tyr Gly Ala His Thr
    50                  55                  60
Ser Gly Thr Ala Asp Arg Val Pro Gln Thr Ala Thr Gly Ala Gly Phe
65                  70                  75                  80
Pro Arg Arg Ser Phe Ala Thr Asn Gln His Leu Asp Met Gly Asn Gly
                85                  90                  95
Arg Pro Met Tyr Thr Leu Pro Glu Gln Val Leu Ala Pro Pro Ala Ile
            100                 105                 110
Asp Ile Ala Gly Asp Met Pro Met Asp Glu Thr Leu Tyr Ala Glu Leu
        115                 120                 125
Met Ser Thr Asn Leu Phe Leu Ala Ala Gln Gln Gln Arg Leu Gln Gln
    130                 135                 140
Gln Leu Ile Ser Val Thr Ala Ala Ala Gln Gln Phe Gln Gly Leu Asn
145                 150                 155                 160
Leu Gly Ala Ser Met Gly Gln Ala Pro Glu Met Pro Ser Leu Ser Val
                165                 170                 175
Pro Ala Met Gly Phe Tyr Gln Gln Gln Leu Gln Gln Gly Val Gln Pro
            180                 185                 190
Val Val Gln Pro Val Pro Gly Gln Pro Gly Leu Phe Ser Val Tyr Asn
        195                 200                 205
Pro Leu Thr Gly Gln His Asn Tyr Val Tyr Asp Asn Ser Tyr Met Gln
    210                 215                 220
Glu Asn Gly Ser Ser Pro Tyr Val Glu Asp Glu Asp Gln Ser Pro Val
225                 230                 235                 240
Met Gln Thr Pro Ala Phe Tyr Ala Glu Val Ser Pro Pro Ser Glu Ser
                245                 250                 255
Val Gln Ser Pro Leu Glu Arg Gln Gln Thr Val Ser Pro Pro
            260                 265                 270
```

<210> 29990
<211> 125
<212> PRT

<213> A.fumigatus

<400> 29990

```
Ile Thr Arg Cys Ile Ser Leu Ala Pro Thr Thr Trp Phe Pro Ser Pro
1               5                  10                  15
Arg Arg Pro Gln Cys Thr Glu Arg Pro Pro Val Ser Pro Gly Arg Asp
            20                  25                  30
Thr Phe Gln Arg Phe Leu Phe Thr Met Val Pro Glu Gly Arg His Val
        35                  40                  45
Arg Ser Val Tyr Leu Asp Ser His Ala Gly Val Leu Thr Thr Ser Val
    50                  55                  60
Asp Asp Lys Ile Leu Val Asp Cys Ser Thr Ile Asp Thr Ala Thr Ser
65                  70                  75                  80
Met Asp Val Gly Ala Ala Val Cys Gln Asn Ser Lys Thr Ala Ala Phe
                85                  90                  95
Tyr Asp Ala Pro Val Ser Gly Gly Ser Leu Gly Ala Val Ala Gly Thr
            100                 105                 110
Leu Thr Phe Met Val Gly Cys Val Ala Asp Asp Pro Asn
        115                 120                 125
```

<210> 29991
<211> 363
<212> PRT
<213> A.fumigatus

<400> 29991

```
Val Pro Cys Gly Val Val Met Arg Thr Pro His Ile Thr Leu Asp Ala
1               5                  10                  15
Ser Trp Ala Ser Cys Pro Arg Gln Lys Gln Thr Glu Lys Lys Lys Arg
            20                  25                  30
Gly Lys Thr Ser Ser Gly His Pro Asp Gln Ser Gly Met Ile Ala Gln
        35                  40                  45
Pro Leu Gln Ser Gln Arg His Ser Ile Arg Val Val Ala Gln Met Gly
    50                  55                  60
Asp Pro Leu Pro Ala Pro Ile Glu Gly Gln Ala Tyr Val Thr Val Gly
65                  70                  75                  80
Pro Ile Asn Gly Gly Leu Ile Thr Leu Pro Glu Arg Ala Phe Val Ser
                85                  90                  95
Pro Ser Gly Asp Ala Ala Val Thr Val Pro Ser Leu Ser Phe Leu Ile
            100                 105                 110
Thr His Pro Gly Ser Gly Ser Glu Lys Ser Pro Arg His Leu Leu Phe
        115                 120                 125
Asp Leu Gly Leu Arg Ala Thr Leu Gly Asp Tyr Met Lys Glu Gln Gln
    130                 135                 140
Ala His Leu Glu Leu Arg Arg Pro Cys Leu Leu Gly Pro Gly Val Ala
145                 150                 155                 160
Gln Ser Leu Gln Arg Ser Gly Ile Asp Pro Gly Lys Ile Asp Thr Ile
                165                 170                 175
Ile Leu Ser His Val His Tyr Asp His His Gly Asp Pro Ala His Phe
            180                 185                 190
Pro Asn Ala His Phe Phe Val Gly Ala Gly Ser Leu Lys Leu Leu Asp
        195                 200                 205
Glu Gly Leu Gly Ile Ala Ala Ser His Gln Phe Phe Asp Pro Asp Leu
    210                 215                 220
Phe Arg Asn Val Leu Arg Val Ser Glu Phe Pro Ser Pro Gly Ala Ser
225                 230                 235                 240
```

```
Pro Trp Arg Ala Leu Gly Pro Phe Ala Gly Ala Leu Asp Phe Leu Gly
                245                 250                 255
Asp Gly Ser Val Tyr Val Ile Asp Ala Pro Gly His Leu Pro Gly His
            260                 265                 270
Ile Asn Leu Leu Cys Arg Val Gly Pro Asp Thr Trp Met Tyr Leu Gly
        275                 280                 285
Gly Asp Ser Cys His Asp Ser Arg Leu Leu Thr Gly Glu Arg Gln Ile
    290                 295                 300
Ala Thr Trp Asp Asp Gly His Gly Asn Thr Gly Cys Ile His Val Asp
305                 310                 315                 320
Gln Thr Arg Ala Glu Glu Ser Leu Ser Arg Ile Arg Arg Leu Gln Glu
                325                 330                 335
Met Glu Gly His Lys Val Glu Val Val Met Ala His Asp Val Glu Trp
            340                 345                 350
Trp Ser Thr Asn Gln His Arg Ala Leu Gly Leu
        355                 360
```

<210> 29992
<211> 103
<212> PRT
<213> A.fumigatus

<400> 29992

```
Ser Arg Val Asn Asn Met His Leu Ile Leu Thr Gly Ala Thr Gly Leu
1               5                   10                  15
Val Gly Ser Gly Val Leu Asp Ala Met Leu Ala Met Lys Glu Val Thr
            20                  25                  30
Lys Ile Ser Ile Leu Ser Arg Arg Pro Val Gln Met Ala Glu Asp Ala
        35                  40                  45
His Asp Pro Arg Val Gln Val Ile Leu His Gln Gly Phe Glu Ala Tyr
    50                  55                  60
Asp Pro Lys Val Leu Ser Gln Leu Gln Gly Ala Thr Gly Cys Val Trp
65                  70                  75                  80
Ala Leu Gly Ile Ser Gln Thr Lys Val Asn Lys Glu Ser Val Cys Ala
                85                  90                  95
Leu Ser Phe Glu Arg Asn Tyr
            100
```

<210> 29993
<211> 67
<212> PRT
<213> A.fumigatus

<400> 29993

```
Ser Ala Phe Lys Ser Ser Pro Met Cys Ser Ala Ile Ala Leu Leu Leu
1               5                   10                  15
Thr Ala Gln Glu Tyr Gly Tyr Gly Thr Met Leu Glu Gly Gly Ile Ser
            20                  25                  30
Ser Ser Pro Ser Ile Leu Arg Ser Ser Asn Ile Cys Asn Met Asn Ile
        35                  40                  45
Tyr Thr His Ala Tyr Pro Arg Leu Lys Pro Ala Gly Trp Ala Asp Gln
    50                  55                  60
Arg Ser Glu
65
```

<210> 29994

<211> 188
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (156),(157),(158),(161)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 29994
Gly Gly Leu Ile Thr Glu Glu Ser Phe Thr Ser Val Phe Pro Glu Met
1 5 10 15
Lys Asp Ala Asn Ile Gln Gly Ile Val Ile Ala Ser Phe Glu Leu Gly
20 25 30
Ala Leu Ala Gly Ala Leu Ala Cys Leu Asp Leu Gly Asp Arg Leu Gly
35 40 45
Arg Arg Leu Thr Val Trp Phe Gly Met Leu Phe Met Leu Val Gly Gly
50 55 60
Thr Leu Gln Thr Ser Ala Trp Ala Leu Ser Gln Leu Thr Val Gly Arg
65 70 75 80
Val Leu Ser Gly Ile Gly Leu Gly Leu Gln Val Ala Thr Ile Pro Ser
85 90 95
Trp Gln Ser Glu Cys Ala Lys Ala His Ser Arg Gly Arg Trp Val Met
100 105 110
Ile Glu Gly Gly Leu Gln Thr Phe Gly Val Ala Cys Gly Gln Leu Val
115 120 125
Gly Tyr Gly Phe Phe Phe Val Lys Gly Gln Ala Gln Trp Arg Ala Pro
130 135 140
Val Gly Ile Gln Leu Ile Pro Ala Leu Ile Val Xaa Xaa Xaa Ile Asn
145 150 155 160
Xaa Leu Pro Glu Ser Leu Arg Trp Leu Ile Lys His Gly Leu Val Glu
165 170 175
Glu Val Cys Ile Leu Ser Met Met Glu Val Ser Arg
180 185

<210> 29995
<211> 264
<212> PRT
<213> A.fumigatus

<400> 29995
Trp Arg Phe Leu Ala Asp Arg Thr Asn Leu Gln Gly Ala Tyr Asn Leu
1 5 10 15
Ser Lys Leu Arg Asn Leu Pro Phe Asp His Pro Glu Leu Met Phe Glu
20 25 30
Arg Asp Ala Ile Ile Ala Ser Phe Glu Ala Gln Ser Glu Leu Ala Pro
35 40 45
Phe Ser Tyr Arg Glu Met Leu Arg Asn Gly Lys Thr Lys Met Phe His
50 55 60
Arg Val Ala Ile Gly Phe Phe Met Gln Ser Ala Gln Gln Leu Ser Gly
65 70 75 80
Ile Asn Leu Val Ser Thr Tyr Ala Asn Lys Ile Leu Gln Glu Ser Phe
85 90 95
Gly Leu Ala Ala Ser Thr Ser His Leu Ile Ala Ala Met Gly Gly Leu
100 105 110
Glu Tyr Ala Val Cys Ser Leu Leu Ser Val Phe Leu Ile Glu Gly Leu

```
        115                 120                 125
Gly Arg Arg Arg Ala Phe Leu Trp Thr Thr Val Gly Met Ser Ser Cys
    130                 135                 140
Phe Ala Val Ile Ala Gly Leu Gln Ser Thr Asp Ser Arg Thr Cys Gln
145                 150                 155                 160
Leu Thr Ala Ala Gly Phe Leu Phe Leu Phe Asn Thr Phe Phe Gly Leu
                165                 170                 175
Ala Trp Val Gly Gly Pro Phe Leu Tyr Ser Ala Glu Ile Ala Pro Leu
            180                 185                 190
Arg Cys Arg Ala Gln Ala Asn Ala Phe Ala Ser Ala Gly Asn Trp Leu
        195                 200                 205
Phe Cys Phe Val Val Val Met Ile Ile Pro Pro Ala Phe Gln Asn Ile
    210                 215                 220
Gly Trp Lys Thr Val Arg Leu Leu Arg Val Pro His Trp Pro Ser Ser
225                 230                 235                 240
Asn Val Arg Leu Val Tyr His Phe Cys His Phe Glu Cys Leu Leu Arg
                245                 250                 255
Thr His His Leu Leu Phe Pro Cys
            260
```

<210> 29996
<211> 82
<212> PRT
<213> A.fumigatus

<400> 29996

```
Ile Gln Val Gly Gly Asn Gln Ala Gly Arg Ser Val Ala Val Cys Asp
1               5                   10                  15
Met Phe Gln Val Lys Ile Ser Ser Ser Val Ser Ile Met Ala Ile Phe
            20                  25                  30
Pro Leu Thr Arg Tyr Thr Ala His Met Gly Ala Ser Gly Leu Thr Leu
        35                  40                  45
Asn Phe Leu Val Ala Gly Ile Ala Thr Cys Ala Phe Trp Leu Phe Gly
    50                  55                  60
Tyr Asp Met Ser Val Met Val Tyr Leu Leu Pro Asn Gly Thr Cys Thr
65                  70                  75                  80
Pro Val
```

<210> 29997
<211> 89
<212> PRT
<213> A.fumigatus

<400> 29997

```
Leu Gly Ser Ala Gln Leu Arg Arg Gly Pro Arg Thr Pro Lys His Val
1               5                   10                  15
Leu Leu Gln Cys Leu Ser Tyr Gln Glu Ala Tyr Arg Lys Met Ala Asn
            20                  25                  30
Lys Leu Leu Asn Ile Glu Gly Ser Leu Gln Gly Lys Ile Thr Asp Tyr
        35                  40                  45
Asn Met Leu Met Phe Asp Pro Gln Ala Val His Tyr Ile Ala Lys Leu
    50                  55                  60
Met His Ser Gly Lys His Gly Gln Lys Arg Gly Asn Leu Leu Gln Gly
65                  70                  75                  80
Ser Gly Met Asp Val Glu Asp Ser Ser
```

85

<210> 29998
<211> 634
<212> PRT
<213> A.fumigatus

<400> 29998
Val Ala Arg Ala Leu Thr Tyr Ile Leu Ala Arg Phe Val Asn Ser Leu
1 5 10 15
Gly Ala Lys Val His Ser Ser Pro Pro Thr Ile Glu Lys Ile Ser Gln
20 25 30
Arg Phe Gln Asp Phe Tyr Val Arg Ala Glu Ser His Ile Ala Thr His
35 40 45
Ile Ser Ala Leu Ala Ser Arg Ile Asn Arg Asp Pro Ser Pro Asn Pro
50 55 60
Pro Pro Pro Arg Ala Ser Arg Phe Gly Gln Ser Lys Ser Thr Asn Arg
65 70 75 80
Asp Ser Gly Asn Val Pro Ser Ser Arg Gln Met Leu Thr Ala Ser Glu
85 90 95
Val Ala Glu Arg Arg Lys Ala Arg Lys Ser Leu Ala Ser Lys Gly Ala
100 105 110
Ala Leu Glu Glu Ala Ile Glu Arg Arg Ala Cys Glu Cys Val Tyr Asp
115 120 125
Arg Ile Trp Arg His Lys Ser Thr Leu Asp Glu Val Arg Asp Glu Lys
130 135 140
Leu Arg Ser Lys Thr Ala Ala Leu Leu Leu Val Gly Ile Asn Leu Lys
145 150 155 160
Asp Leu Gly Ile Asp Ile Asp Met Ala Thr Ile Asn Glu Glu Asp Gln
165 170 175
Lys Glu Ala Asp Gln Cys Leu Ser Val Ala Arg Lys Cys Leu Ala Arg
180 185 190
Met Asn Glu Ala Lys Tyr Pro Leu Gly Lys Leu Gln His Leu Ala Gly
195 200 205
Ala His Lys Ala Ile Val Asp Ala Leu Thr Lys Leu Leu Pro Ser Ser
210 215 220
Ser Ser Ala Asp Glu Ile Leu Pro Thr Leu Ile Tyr Thr Leu Ile Thr
225 230 235 240
Cys Pro Pro Glu Gly Ile Asn Ile Ile Ser Asn Leu Leu Phe Ile Gln
245 250 255
Arg Phe Arg Ser Thr Lys Lys Ile Asp Gly Glu Thr Ala Tyr Cys Leu
260 265 270
Thr Asn Leu Glu Ala Ala Ile Ser Phe Leu Glu Asn Val Glu Leu Ser
275 280 285
Glu Leu Arg Ala Asp Glu Thr Gln Glu Gly Lys Leu Gln Leu Ser Asn
290 295 300
Glu Thr Ile Gly Thr Pro Asp Ser Leu Asp Thr Pro His Gln Met Ser
305 310 315 320
Lys Ala Pro Val Ser Thr Val Thr Lys Ala Asn Ala Ser Pro Glu Ile
325 330 335
Ser Lys Ser Asp Ala Lys Glu Asp Ala Ala Glu Gly Leu Leu Lys Gln
340 345 350
Gln Ser Pro Ala Thr Pro Gln Gln Pro Arg Leu Asn Asn Leu Phe Gln
355 360 365
Pro Pro Ser Lys Val Leu Gly Ala Ala Asn Asp Val Val Arg Asn Thr
370 375 380

```
Ala Asp Gln Gly Leu Lys Asn Ile Ser Ala Ser Leu Asp Ser Ser Phe
385                 390                 395                 400
Asn Phe Leu Phe Gly Arg Leu Lys Glu Leu Gln Ser Ser Gln Leu Ser
                405                 410                 415
Ala Lys Asp Gly Gly Ser Pro Ile Leu Pro Lys Thr Leu Ala Glu Ala
            420                 425                 430
Arg Arg Leu Val Thr Ser Pro Pro Ser Leu Asp Lys Gly Val Ser Arg
        435                 440                 445
Asp Asn Gly Gly Gly Asp Ser Leu Ala Thr Pro Asp Arg Pro Pro Leu
    450                 455                 460
Arg Arg Ile Gly Ser Arg Ala Glu Asp Thr Phe Met Gly Leu Val Ser
465                 470                 475                 480
Gly His Arg Thr Pro Arg Asp Arg Ser Thr Asp Ser Val Arg Thr Gln
                485                 490                 495
Ala Ser Leu Lys Thr Ala Thr Ala Thr Thr Gly Ala Leu Lys Asp Glu
            500                 505                 510
Pro Ser Ser Ala Ala Ser Gln Thr Asn Pro Leu Pro Thr Thr Pro Leu
        515                 520                 525
Glu Ser Met Arg Asn Phe Gly Asn Ser Ile Asn Pro Leu Asn His Ile
    530                 535                 540
Pro Gly Met Ile Arg Asn Phe Gly Arg Ser Thr Pro Asp Ser Gly Gly
545                 550                 555                 560
Ser Phe Ala Ala Leu Ala Pro Ser Glu Lys Thr Lys Thr Ser Pro Ser
                565                 570                 575
Ser Arg Glu Val Pro Gly Asn Asn Ser Ser Asn Gln Pro Lys Ile Asp
            580                 585                 590
Pro Pro Ile Gln Arg Phe Leu Gln Thr Gln His Ala Asn Glu Leu Thr
        595                 600                 605
Ile Gly Asp Val Val Val Leu Leu Glu Asp Tyr Lys Arg Leu Ala Ala
    610                 615                 620
Ala Leu Leu Arg Gln Ala Ser Asp Ser Ser
625                 630
```

<210> 29999
<211> 640
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (551)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 29999

```
Ala Asn Leu Thr Arg Ile Leu Ala Pro Val Val Glu Asn Lys Gly Arg
1               5                   10                  15
Ala Phe Val Trp Gly Leu Val Lys Trp Cys Gly Ile Gly Thr Leu Ala
            20                  25                  30
Ser Tyr Thr Asn Ala Met Ile Lys Phe Leu Gln Ser Lys Val Ser Ile
        35                  40                  45
Ala Phe Arg Thr Arg Leu Thr Arg Tyr Ile His Asp Leu Tyr Val Ala
    50                  55                  60
Asp Asn Asn Tyr Tyr Lys Leu Leu Asn Leu Asp Gly Gly Ile Gly Gln
65                  70                  75                  80
Gly Ala Asp Gln Phe Ile Thr Gln Asp Leu Thr Leu Phe Cys Ser Ala
                85                  90                  95
```

```
Ala Ala Ala Leu Tyr Ser Thr Met Gly Lys Pro Leu Val Asp Leu Phe
            100                 105                 110
Val Phe Asn Tyr Gln Leu Tyr Cys Ser Leu Gly Pro Leu Ala Leu Ser
        115                 120                 125
Gly Ile Leu Thr Gly Tyr Phe Ser Thr Ala Val Ile Leu Arg Lys Leu
    130                 135                 140
Ser Pro Pro Phe Gly Lys Leu Lys Ala Val Glu Gly Lys Lys Glu Gly
145                 150                 155                 160
Asp Phe Arg Gly Leu His Ser Arg Leu Leu Ala Asn Ala Glu Glu Ile
                165                 170                 175
Ser Phe Tyr Gly Gly Ala Asp Ile Glu Arg Val Phe Leu Leu Arg Ser
            180                 185                 190
Phe Lys Asp Leu Gln Arg Trp Met Glu Gly Ile Tyr Ser Leu Lys Ile
        195                 200                 205
Arg Tyr Asn Met Leu Glu Asp Val Ile Leu Lys Tyr Ala Trp Ser Ala
    210                 215                 220
Phe Gly Tyr Leu Ile Thr Ser Leu Pro Val Phe Leu Pro Ala Trp Gly
225                 230                 235                 240
Gly Ala Gly Gly Ala Leu Glu Leu Ala Asn Ala Tyr Glu Glu Thr Gly
                245                 250                 255
Arg Glu Arg Gly Arg Met Lys Glu Phe Ile Thr Asn Lys Arg Leu Met
            260                 265                 270
Leu Ser Leu Ala Asp Ala Gly Gly Arg Met Met Tyr Ser Ile Lys Asp
        275                 280                 285
Ile Ser Glu Leu Ala Gly Tyr Thr Ser Arg Val Tyr Thr Leu Ile Ser
    290                 295                 300
Thr Leu His Arg Val His Val Asn Ala Tyr Tyr Pro Pro Arg Gly Ser
305                 310                 315                 320
His Ala Glu Leu Tyr Ser Leu Ala Asp Ala Gln Gly Thr Ile His Asn
                325                 330                 335
Gly Phe Asp Gly Val Arg Leu Glu Gln Val Pro Ile Val Ala Pro Ala
            340                 345                 350
Leu His Pro Arg Gly Gly Asp Glu Leu Ile Glu Ser Leu Ser Phe Ile
        355                 360                 365
Val His Ser Gly Glu His Leu Leu Ile Ser Gly Pro Asn Gly Val Gly
    370                 375                 380
Lys Ser Ala Ile Ala Arg Ile Val Ala Gly Leu Trp Pro Val Tyr Arg
385                 390                 395                 400
Gly Leu Val Ser Arg Pro Arg Gly Phe Gly Leu Asp Gly Ile Met Phe
                405                 410                 415
Leu Pro Gln Arg Pro Tyr Leu Ser Val Gly Thr Leu Arg Asp Gln Val
            420                 425                 430
Ile Tyr Pro His Thr Glu Ile Asp Met Arg Glu Ala Gly Arg Thr Asp
        435                 440                 445
Ala Glu Leu Gln Lys Ile Leu Glu Asp Ala Arg Leu Gly Tyr Leu Pro
    450                 455                 460
Ala Arg Glu Gly Gly Trp Asn Ala Arg Lys Glu Trp Lys Asp Val Leu
465                 470                 475                 480
Ser Gly Gly Glu Lys Gln Arg Met Ala Met Ala Arg Leu Phe Tyr His
                485                 490                 495
Glu Pro Arg Tyr Ala Phe Leu Asp Glu Gly Thr Ser Ala Val Ser Ser
            500                 505                 510
Asp Val Glu Gly Val Leu Tyr Gln Gln Ala Lys Asp Arg Gly Ile Thr
        515                 520                 525
Leu Ile Thr Ile Ser Thr Arg Ala Ser Leu Lys Lys Tyr His Thr Phe
    530                 535                 540
```

```
Ser Leu Thr Leu Cys Leu Xaa Ala Glu Gly Glu Gln Trp Glu Phe Glu
545                 550                 555                 560
Lys Ile Gly Thr Glu Lys Glu Lys Leu Gly Val Glu Lys Glu Ile Gln
                565                 570                 575
Glu Leu Arg Lys Arg Leu Asp Lys Val Asp Glu Trp Lys Arg Arg Arg
            580                 585                 590
Glu Glu Ile Asp Lys Glu Leu His Lys Val Trp Ala Glu Glu Gly Glu
        595                 600                 605
Leu Ala Pro Pro Pro Tyr Glu Leu Gly Asn Glu Glu Ala Val Ala Glu
    610                 615                 620
Val Ser Asn Glu Ala Thr Glu Glu Ala Asn Val Asp Lys Thr Gln Glu
625                 630                 635                 640
```

<210> 30000
<211> 452
<212> PRT
<213> A.fumigatus

<400> 30000

```
Arg Ser Phe Glu Ala Glu Phe Val Val Lys Lys Pro Thr Met Tyr Glu
1               5                  10                  15
Tyr Ile His Lys Leu Arg Arg Trp Arg Asp Lys Phe Glu Glu Lys Leu
            20                  25                  30
Asp Arg Arg Gly Gln Tyr Gln Phe Leu Glu Thr Tyr Ser Pro His Leu
        35                  40                  45
Ser Glu Phe Arg Phe Leu Lys Phe Asp Glu Val Glu Val Pro Gly Gln
    50                  55                  60
Tyr Leu Leu His Lys Asp Lys Asn Gln Asp Phe Val Arg Ile Asp Arg
65                  70                  75                  80
Phe Leu Pro Asp Ile Asp Leu Val Arg Gly Ile Gly Val Cys His Arg
                85                  90                  95
Arg Leu Lys Ile Arg Gly His Asp Gly Ser Val His Pro Phe Ala Val
            100                 105                 110
Gln His Pro Ala Ala Arg His Cys Arg Arg Glu Glu Arg Ile Leu Gln
        115                 120                 125
Leu Phe Arg Ile Phe Asn Gly Leu Leu Gly Lys Arg Lys Glu Ser Arg
    130                 135                 140
Arg Arg Asn Leu Tyr Phe His Leu Pro Leu Met Val Pro Leu Ala Pro
145                 150                 155                 160
His Ile Arg Leu Val Arg Asp Asp Pro Ser Tyr Ile Ser Met Gln Gly
                165                 170                 175
Ile Phe Glu Asp Tyr Cys Arg Arg Val Gly Thr Ser Lys Asp Glu Pro
            180                 185                 190
Val Leu Phe Thr Met Glu Lys Met Arg Ser Leu Ala Glu Thr Lys Gln
        195                 200                 205
Asn Val Arg Gln Thr Asp Asn Leu Met Val Glu Arg Ala Asn Val Ser
    210                 215                 220
Gln Arg Thr Pro Asp Gln Gln Gln Val Leu Arg Thr Glu Ile Leu Thr
225                 230                 235                 240
Ala Ile Gln Glu Lys Trp Val Pro Ser Thr Ile Val Lys Asp Tyr Phe
                245                 250                 255
Gln Lys Thr Tyr Pro Asn Phe Ala Asn Phe Trp Leu Phe Arg Arg Gln
            260                 265                 270
Phe Ser Tyr Gln Tyr Ala Ala Ile Ala Phe Met Thr Tyr Val Met His
        275                 280                 285
Met Gly Asn Arg Tyr Pro Asn Lys Ile Met Ile Ser Arg Ser Thr Gly
```

```
    290                 295                 300
Asp Ile Trp Gly Thr Glu Leu Ile Pro Ala Ile Asn Pro Ala Lys Ala
305                 310                 315                 320
Phe Phe Tyr Asn Pro Glu His Val Pro Phe Arg Phe Thr Pro Asn Ile
                325                 330                 335
Gln Thr Leu Met Gly Pro Ile Ala Thr Glu Gly Leu Phe Ala Cys Ala
            340                 345                 350
Leu Met Ala Ile Ala Arg Cys Leu Thr Glu Pro Arg His Glu Leu Glu
        355                 360                 365
Gln Gln Leu Ser Ile Phe Val Arg Asp Glu Met Met Phe Trp Ala Thr
    370                 375                 380
Ala Gln His Arg Gly Val Leu Pro Val Gln Gln Leu Arg Asp Leu Val
385                 390                 395                 400
Tyr Asn Asn Ser Asp Ile Ile Val Asn Arg Ala Val Ser Leu Ala Ser
                405                 410                 415
Pro Pro Glu Gly Asn Leu Pro Ala Asn Gln Thr Thr Ile Asp Leu Ile
            420                 425                 430
Ser Lys Ala Val Asn Pro Gln His Leu Ala Ser Cys Asp Ala Leu Trp
        435                 440                 445
Met Pro Tyr Leu
    450

<210> 30001
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30001
Gly Ala Phe Glu Gly Cys Arg Tyr Arg Ala Phe Arg Phe Met Gly Cys
1               5                   10                  15
Thr Ala Leu Ser Trp Asn Pro Gln Tyr Ser Tyr Leu Val His Ile Lys
            20                  25                  30
Tyr Asp Thr Ser Ile Ser Ile Glu Pro Ile Ser Lys His Ser Lys Asp
        35                  40                  45
Lys Trp Leu Pro Met Lys Phe Ser Ala Gln Val Gln Asn Gln
    50                  55                  60

<210> 30002
<211> 101
<212> PRT
<213> A.fumigatus

<400> 30002
Ser Val His Gly Leu Gln His Leu Pro Ser Phe Cys His His Ser His
1               5                   10                  15
Leu Phe Lys Ser Thr Met Pro Ala Thr Thr Ala Asp Thr Leu Ser Leu
            20                  25                  30
Val Thr Arg Thr Val Thr Val Ala Pro Leu Val Leu Leu Ser Val Ala
        35                  40                  45
Asp His Tyr Gly Arg Ser Ala Lys Gly Thr Arg Lys Arg Val Val Gly
    50                  55                  60
Val Leu Leu Gly Glu Asn Leu Gly Gln Thr Val Arg Val Ser Asn Ser
65                  70                  75                  80
Phe Ala Gly Ala Ser Ser Pro Lys Pro Ala Tyr Leu Cys Ser Leu Val
                85                  90                  95
Asp Gly Arg Gln Phe
```

100

<210> 30003
<211> 98
<212> PRT
<213> A.fumigatus

<400> 30003
Cys Leu Cys Leu Leu Val Pro Phe Glu Glu Asp Glu Lys Asp Pro Ser
1 5 10 15
Val Trp Phe Leu Asp His Asn Phe Val Glu Ser Met Arg Asp Met Phe
20 25 30
Lys Lys Ile Asn Ala Arg Glu Lys Leu Val Gly Trp Tyr His Ser Gly
35 40 45
Pro Lys Leu Arg Ala Ser Asp Leu Glu Ile Asn Glu Leu Phe Lys Arg
50 55 60
Tyr Thr Pro Asn Pro Leu Leu Val Ile Val Asp Val Gln Pro Lys Glu
65 70 75 80
Val Gly Val Pro Thr Asp Ala Tyr Phe Ala Val Asp Glu Ile Lys Asp
85 90 95
Val Gly

<210> 30004
<211> 198
<212> PRT
<213> A.fumigatus

<400> 30004
Asp Gly Thr Thr Thr Ser Arg Thr Phe Val His Thr Pro Ser Val Ile
1 5 10 15
Glu Ala Glu Glu Ala Glu Glu Ile Gly Val Glu His Leu Leu Arg Asp
20 25 30
Ile Arg Asp Val Ala Val Gly Thr Leu Ser Thr Arg Ile Thr Ser Gln
35 40 45
Leu Gln Ser Leu Gln Gly Leu His Leu Arg Leu Arg Asp Ile Gly Gln
50 55 60
Tyr Leu Gln Lys Val Leu Asp His Glu Leu Pro Val Asn His Ala Ile
65 70 75 80
Leu Gly Asn Leu Gln Asp Val Phe Asn Leu Leu Pro Asn Leu Ser Thr
85 90 95
Pro Ala Ala Thr Ser Arg Leu Ser Gly Ser Glu Pro Gln Met Glu Asn
100 105 110
Ser Glu Leu Ala Arg Ala Met Ser Ile Lys Thr Asn Asp Gln Leu Met
115 120 125
Ala Ile Tyr Ile Ser Ser Leu Ile Arg Ala Ile Thr Ala Phe His Asp
130 135 140
Leu Ile Glu Asn Lys Ile Gln Asn Arg Gln Gln Gln Glu Glu Asn Glu
145 150 155 160
Ser Lys Lys Glu Gln Glu Ala Asn Ala Ala Lys Gly Asp Lys Glu Gly
165 170 175
Ala Lys Lys Ala Asn Gly Met Asn Gly Glu Pro Lys Glu Asp Gln Glu
180 185 190
Lys Ser Lys Lys Lys Ser
195

<210> 30005
<211> 99
<212> PRT
<213> A.fumigatus

<400> 30005
Tyr Ile Gln Ser Val Leu Asp Leu Asn Leu Ile Thr Ile Phe Ala Pro
1 5 10 15
Glu Val Ala Pro Met Asp Thr Pro Arg Val Gln Val Gly Ala Pro Asp
20 25 30
Val Ala Gln Ala Pro Glu Ser Thr Gln Thr Thr Asp Thr Pro Asp Val
35 40 45
Asp Met Asp Glu Thr Gln Gln Ser Pro Leu Asn Glu Ile Gln Ala Asp
50 55 60
Ala Thr Gln Gln Asp Ile Ser Leu Pro Asp Ala Gln Pro Thr Gly Ser
65 70 75 80
Ala Pro Thr Glu Pro Pro Gln Pro Pro Lys Lys Lys Pro Gly Leu His
85 90 95
Phe Leu Glu

<210> 30006
<211> 264
<212> PRT
<213> A.fumigatus

<400> 30006
Gly Ser Asn Leu Arg Gly Ala Ser Thr Met Arg Pro Gln Leu Ala His
1 5 10 15
Ala Arg Leu Thr Pro Leu Ser Tyr Leu Thr Ser Pro Ile Val Glu Leu
20 25 30
Ile Val Gly Lys Asp Glu His Lys Thr Ser Leu Thr Ala His Gln Ser
35 40 45
Leu Leu Leu Glu Ser Pro Phe Leu Ala Gln Ala Val Ala Ala Phe Ser
50 55 60
Glu Ser Gly Pro Val Arg Thr Ser Phe Leu Leu Ser Ser Ile Leu Asp
65 70 75 80
Ala Phe Thr Asn Thr Ile Ser Val Met Gln Arg Arg Ile Glu Leu Pro
85 90 95
Asp Glu Asn Val Glu Ala Phe Gly Cys Phe Leu Gln Phe Gln Tyr Thr
100 105 110
His Asp Tyr Thr Ala Ser His Ala Asp Pro Ser Ala Asp Gln Asp Val
115 120 125
Val Gly Glu Leu Asp Asp Ser Gly Glu Leu Leu Leu Lys His Ala Arg
130 135 140
Val Tyr Thr Leu Ala Glu Lys Leu Gly Val Pro Ala Leu Lys Ser Leu
145 150 155 160
Ala His Ser Lys Ile His Arg Ile Asn Ser Thr Ser His Gly Glu Ile
165 170 175
Ala Tyr Ala Arg Tyr Val Tyr Thr His Thr Pro Val Asp Asp Val Thr
180 185 190
Ile Arg Lys Pro Val Ala Ser Phe Trp Ala Thr Arg Ser His Val Leu
195 200 205
Arg His Glu Ala Glu Glu Glu Phe Lys Lys Leu Cys Leu Glu Val Pro
210 215 220
Glu Phe Cys Phe Asp Val Leu Thr Leu Val Leu Asp Gln Lys Glu Lys

225 230 235 240
Arg Ala Gln Asp Arg Ala Glu Thr Glu Ser Gly Ile Lys Gly Ser Gly
245 250 255
Arg Lys Arg Leu Arg Ser Gly Ile
260

<210> 30007
<211> 82
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (28)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30007
Arg Gln Phe Trp Arg Ala Pro Arg Thr Arg Tyr Leu Lys Lys Arg Val
1 5 10 15
Ser Val Gly Phe Ile Pro His Gly Leu Gly His Xaa Leu Gly Met Asn
20 25 30
Thr His Asp Thr Gly Gly Asn Pro Asn Tyr Ala Asp Lys Asp Thr Met
35 40 45
Phe Arg Tyr Leu Arg Val Arg Gly Arg Leu Pro Ala Gly Ser Val Ile
50 55 60
Thr Val Glu Pro Gly Val Ser Trp Gly Leu Pro Met Phe Pro Lys Leu
65 70 75 80
Ile His

<210> 30008
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30008
Val Tyr Phe Cys Arg Phe Ile Ile Glu Pro Tyr Ile Lys Ser Pro Glu
1 5 10 15
Ser Asn Lys Tyr Ile Asp Thr Asn Val Leu Asp Arg Tyr Trp Arg Val
20 25 30
Gly Gly Val Arg Ile Glu Asp Asn Val Leu Val Thr Lys Asp Gly Tyr
35 40 45
Asp Asn Leu Thr Thr Ala Pro Lys Ala Val Asp Glu Leu Glu Arg Leu
50 55 60
Ala Ala Ser
65

<210> 30009
<211> 103
<212> PRT
<213> A.fumigatus

<400> 30009
Ile Ala Leu Phe Ser Ser Phe Ser Ser His Ser Leu Phe Ser Phe Pro
1 5 10 15
Leu Phe Ile Ile Leu Pro Pro Leu Arg Ile Pro Val Arg Pro Gly Lys

```
            20                  25                  30
Asn Pro Glu Ser Phe Arg Ala Asp Tyr Ile Arg Leu Leu Asp Pro Tyr
        35                  40                  45
Leu Ile Thr Pro Gly Ser Arg Thr Ile Phe Thr Ala Leu Val Ser Val
    50                  55                  60
Arg Ala Ile Ala Asp Asn Phe Pro Pro Ser Arg Ile Phe Trp Ala Gly
65                  70                  75                  80
Ser Cys Lys Arg Arg Ser Pro Ser Ala Pro Leu Ser Arg Leu Pro Arg
                85                  90                  95
His Glu Leu Leu Pro Arg Gly
            100
```

<210> 30010
<211> 190
<212> PRT
<213> A.fumigatus

<400> 30010

```
Leu Leu Ser Thr Cys His Pro Gly Val Gly Lys Thr Ser Leu Val Gln
1               5                   10                  15
Arg Tyr Val Lys Asn Ala Phe Asn Pro Ala Thr Ile Thr Ser Thr Val
            20                  25                  30
Gly Ala Ser Phe Ile Thr Lys Arg Val Leu Asp Thr Thr Ser Asp Thr
        35                  40                  45
Ile Val Arg Leu Gln Ile Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg
    50                  55                  60
Ser Ile Ser Arg Leu Tyr Tyr Arg Gly Ala Asn Ala Cys Leu Leu Cys
65                  70                  75                  80
Tyr Asp Ile Thr Asp Glu Gln Ser Phe Glu Glu Met Thr Gly Trp Leu
                85                  90                  95
Leu Glu Leu Lys Lys His Leu Ala Asp Asp Asp Pro Ile Val Ile His
            100                 105                 110
Val Val Gly Thr Lys Ser Asp Ile Val Thr Leu Asp Pro Ser Arg Arg
        115                 120                 125
Arg Val Pro Phe Glu Arg Thr Ile Ala Tyr Val Ala Glu Gln Leu Tyr
    130                 135                 140
Pro Ser Arg Ala Ser Thr Pro Pro Pro Thr Ala Gly Met Gly Leu Gly
145                 150                 155                 160
Leu Gly Pro Ser Ser Thr Ala Leu Gln Ser Pro Asp Ser Lys Arg Ser
                165                 170                 175
Ser Gly Phe Trp Gly Gln Gly Tyr Arg Leu Gly Leu Leu Pro
            180                 185                 190
```

<210> 30011
<211> 106
<212> PRT
<213> A.fumigatus

<400> 30011

```
Ser Met Leu Ser Gly Pro Ser Arg Ile Ser Leu Arg Leu Ile Arg Pro
1               5                   10                  15
Ala Ala Gly Cys Arg Leu Ser Gly Arg Leu His Met Ser Leu Ser Ser
            20                  25                  30
Cys Thr His Arg Gly Arg Arg Arg Arg Arg Arg Arg Arg Gly Trp Ala
        35                  40                  45
Trp Gly Ser Val Arg Arg Leu Leu His Tyr Arg Ala Pro Ile Ala Ser
```

```
    50                  55                  60
Ala Val Ala Gly Ser Gly Asp Arg Asp Ile Gly Trp Asp Cys Cys His
65                  70                  75                  80
Glu Ile Ser Ala Gln Asp Gly Glu Gly Ile Gln Glu Ala Phe Arg Val
                85                  90                  95
Ile Thr Arg Lys Leu Val Glu Gln Arg Glu
            100                 105
```

<210> 30012
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30012

```
Lys Val Ile Phe Pro Ser Tyr Ile Thr Arg Ser Ser Arg Asn Lys Glu
1               5                   10                  15
Ile Phe Lys Leu Val Lys Ala Tyr Leu Ile Ser Ser Leu Ser Ile Arg
            20                  25                  30
Thr Asn Phe Asn Pro Thr Ile Val Trp Glu Arg Asp Ile Leu Ile Pro
        35                  40                  45
Thr Leu Tyr Ile Asp Phe Ser Phe Glu Asp Asn Ala Trp Arg Lys His
    50                  55                  60
Leu Thr Ser
65
```

<210> 30013
<211> 73
<212> PRT
<213> A.fumigatus

<400> 30013

```
Pro Val Leu Gly Arg Leu Ala Leu Ser Val Leu Leu Val Ile Lys Ser
1               5                   10                  15
Leu Ala Pro Ala Thr Ile Pro Thr Thr Ile Phe Phe Trp Ile Arg Leu
            20                  25                  30
Ser Met Asn Asp Ile Asn Gln Asn Gly Ser Ser Val Asp Ala Met Glu
        35                  40                  45
Met Glu Leu Arg His Thr His Thr Thr Met Ile Val Ser Ala Gly Asn
    50                  55                  60
Leu Ala Leu Ser Gly Thr Tyr Ser Arg
65                  70
```

<210> 30014
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30014

```
Leu Arg Cys Asn Leu Phe Cys Thr Val Thr Asn Tyr Phe Lys Cys Leu
1               5                   10                  15
Met Ala Gly Lys Gly Lys Gly Lys Gly Lys Lys Lys Thr Lys Pro Lys
            20                  25                  30
Ile Ser Glu Ile Ser Ala Gly Ser Ala Ile Ala Ser Thr Glu Thr Ala
        35                  40                  45
Val Ala Lys Asp Glu Val Ser Ala Lys Met Lys Glu Leu Val Leu Arg
    50                  55                  60
```

Tyr Glu Val
65

<210> 30015
<211> 81
<212> PRT
<213> A.fumigatus

<400> 30015
Val Leu Ile Ile Val Ala Pro Ser Pro Ile Phe Pro Leu Met Leu Gly
1 5 10 15
Thr Ser Val Gln Gly Gly Lys Thr Asn Phe Gln His Lys Val Arg Asn
20 25 30
Arg Phe Gln Lys Gly Ala Val Gln Tyr Gly Ile Val Ile Ser Pro Gln
35 40 45
Lys Gln Lys Val Ile Arg Cys His Leu Asp Asp Lys Val Pro Glu Pro
50 55 60
Ser Val Val Val Phe Arg Arg Ala Ile Tyr Leu Lys His Ser Gly Ser
65 70 75 80
Ile

<210> 30016
<211> 111
<212> PRT
<213> A.fumigatus

<400> 30016
Gly Leu Gly Phe Asn Leu Trp Asn Ile Tyr His Ser Leu Pro Val Ala
1 5 10 15
Cys Thr Thr Pro Gln Thr Ala Phe Ile Met Glu Gln Gln Leu Leu Thr
20 25 30
Leu Leu Ala Asp Thr Gln Ser Pro Ala Val Asp Thr Thr Lys Ala Ala
35 40 45
Glu Leu Gln Arg Leu His Leu Tyr Ser Asn Glu Gln Phe Pro Leu Ser
50 55 60
Leu Ala Ala Ile Ala Ser His Asp Ser Val Pro Thr Asn Leu Arg Gln
65 70 75 80
Ser Ser Leu Ser Val Leu Arg Thr Phe Ile Thr Ala Ala Trp Ser Pro
85 90 95
Asn Leu Asp Glu Phe Asn Gly Gln Val Leu Ile Asn Asp Thr Asn
100 105 110

<210> 30017
<211> 63
<212> PRT
<213> A.fumigatus

<400> 30017
Pro Thr Tyr Ser Val Pro Lys Ile Ile His Gly Leu Leu Pro Arg Asp
1 5 10 15
Tyr Ser Leu Ser Asp Phe Glu Thr Thr Trp Pro Phe Gly Ala Leu Ser
20 25 30
Ala Phe Arg Leu Ile Asn Ser Val Thr Ile Lys Leu Gly Ala Ala Leu
35 40 45
His Thr Thr Leu Val Lys Ser Phe Arg Tyr Glu Gln Glu Ser Gln

50 55 60

<210> 30018
<211> 166
<212> PRT
<213> A.fumigatus

<400> 30018
Leu Glu Tyr Asp Gln Glu Trp Leu Ala Ile Thr Arg Val Leu Ala Asp
1 5 10 15
Glu Leu Gln Leu Gly Asp Leu Ala Val Gln Met Gln Pro Asp Arg Gly
20 25 30
Gln Ala Phe Tyr Lys Pro Leu Ile Glu Glu Ala Glu Gln Trp Val Glu
35 40 45
Glu Asn Val Val Lys Ala Gly Lys Met Met Val Pro Glu Asn Phe Thr
50 55 60
Pro Thr Ala Pro Phe Phe Asp Pro Ala Val Pro Ile Thr Thr Asp Glu
65 70 75 80
Leu Pro Pro Glu Phe Thr Asn Pro Gln Thr Ala Gln Phe Cys Glu Leu
85 90 95
Ile Gly Ile Glu Asn Lys Phe His Leu Ser Asp Glu Glu Arg Gln Ala
100 105 110
Arg Val Glu Ala Gly Pro Arg Pro Asn Lys Pro Lys Pro Glu Gly Gly
115 120 125
Trp Asn Arg Gly Arg Arg Arg Asn Tyr Asn Asn Asn Asn Arg Gly Gly
130 135 140
Gly Ser Gln Trp Trp Gly Arg Gly Ala Gly Arg Asp Arg Gly Arg Ser
145 150 155 160
Gly Gly Asn Gln Arg Trp
165

<210> 30019
<211> 211
<212> PRT
<213> A.fumigatus

<400> 30019
Ala Val Ala Met Arg Leu Val Thr Cys Leu Glu His Leu Leu Gly Arg
1 5 10 15
Gly Arg Thr Gly Thr Asn Asp Leu Leu Ile Leu Ser Thr Leu Glu Leu
20 25 30
Ile Gln Gly Val Leu Leu Leu His Pro Pro Ser Arg Thr Leu Phe Ala
35 40 45
Arg Glu Ile Tyr Met Asn Leu Leu Leu Asp Leu Leu Asp Pro Ile Asn
50 55 60
Cys Pro Ala Ile Gln Ser Ala Thr Leu Leu Thr Leu Val Thr Ala Leu
65 70 75 80
Leu Asp His Pro Ala Asn Thr Arg Thr Phe Glu Glu Leu Asp Gly Leu
85 90 95
Leu Thr Val Thr Ser Leu Phe Lys Gln Arg Ala Thr Ser Arg Glu Val
100 105 110
Lys Leu Lys Leu Val Glu Phe Leu Tyr Phe Tyr Leu Met Pro Glu Thr
115 120 125
Pro Thr Tyr Pro Val Gly Ala Ser Ala Pro Asn Thr Ala Val Cys Gly
130 135 140
Leu Gln Arg Ser Pro Ser Lys Leu Gly Gly Gly Pro Tyr Ser Arg Ser

```
145                 150                 155                 160
Leu Asn Val Ala Gly Pro Gly His Gly Gly Lys Gly His Gly Asp Thr
                165                 170                 175
Arg Thr Thr Glu Glu Lys Gln Ala Leu Leu Gly Arg Tyr Leu Asn Asn
            180                 185                 190
Val Glu Asp Leu Val Glu Asp Leu Lys Glu Thr Ala Pro Phe Gly Ala
        195                 200                 205
Thr Val Tyr
    210
```

<210> 30020
<211> 77
<212> PRT
<213> A.fumigatus

<400> 30020

```
Gly Arg Gly Trp Arg Leu Pro Arg Arg Tyr Asn Leu Gly Gln Tyr Phe
1               5                   10                  15
Gly Tyr His Ile Ser Leu Phe Thr Thr Leu Thr Gly Cys Ser Ala Val
            20                  25                  30
His Ile Asn Ser Met Thr Ile His Asp Glu Pro Val Leu Pro His Gly
        35                  40                  45
Gly Val Lys Asn Ser Gly Trp Gly Arg Phe Asn Ala Ala Gln Gly Leu
    50                  55                  60
Glu Glu Phe Leu Val Thr Lys Ser Val Thr Trp Met Asp
65                  70                  75
```

<210> 30021
<211> 156
<212> PRT
<213> A.fumigatus

<400> 30021

```
Ser Gly Gln Ile Cys Met Ser Thr Asp Arg Ile Leu Ile His Ser Ser
1               5                   10                  15
Ile Ala Pro Ala Phe Met Asp Ala Leu Lys Lys Ala Leu Gly Ser Asn
            20                  25                  30
Leu Asp Pro Ser Ala Pro Pro Pro Thr Leu Val Asn Val Ala Ser Lys
        35                  40                  45
Ala Arg Val Glu Gly Met Ile Asp Arg Ala Leu Glu Ser Gly Ala His
    50                  55                  60
Leu Ile His Gly Ser Leu Asp Lys Thr Val Gly Lys Ser Gly Val Arg
65                  70                  75                  80
Met Ala Pro Val Leu Leu Gly Gly Val Arg Glu Asp Met Glu Val Trp
                85                  90                  95
Gln Glu Glu Ala Phe Ala Ser Leu Ala Ala Cys Met Val Val Asn Ser
            100                 105                 110
Asp Glu Glu Ala Ile Arg Ile Ala Asn Ser Ser Gly Tyr Gly Leu Ser
        115                 120                 125
Ala Ala Val Phe Thr Glu Asp Leu Arg Lys Gly Leu Ala Ile Ala Lys
    130                 135                 140
Lys Ile Gln Ser Gly Ser Val Phe Trp Val Ser Tyr
145                 150                 155
```

<210> 30022
<211> 391

<212> PRT
<213> A.fumigatus

<400> 30022

```
Asn Asn Glu Val Ile Glu Ser Ala Thr Leu Arg Ser Leu Ser Val Ala
1               5                  10                  15
Ser Asn Leu Lys Lys Val Asp Leu Val Leu Val Pro Glu Val Asp Phe
            20                  25                  30
Val Asp Gln Arg Ile Tyr Arg Phe Glu Pro Thr Asp Gly Ala Ser Asp
        35                  40                  45
Ala Ile Ala Arg Leu Asp Thr Leu Ser Phe Ser Leu Asn Thr Thr Met
    50                  55                  60
Ser Val Gln Arg Phe Asn Gln Trp Arg Gln Lys Thr Asp Ile Arg Arg
65                  70                  75                  80
Leu Arg Thr Trp Ser Ile Gly Arg Ile Asn Asn Thr Thr Leu Ala Arg
                85                  90                  95
Thr Ile Gly Ala Val Ala Pro Ser Phe Gln Arg Leu Glu Arg Leu Glu
            100                 105                 110
Leu Asn Leu Arg Glu Thr Pro Arg Arg Ser Val Gly Tyr Trp Arg Ser
        115                 120                 125
Val Glu Glu Met Met Leu Ser Leu Pro Pro Leu Lys Gly Leu Trp Leu
    130                 135                 140
Leu Gly Asn Arg Asn Ala Ser Phe Ile Ser Lys Val Leu Ser Arg His
145                 150                 155                 160
Gly Ala Thr Leu Leu Ser Leu Gly Leu Asp Thr Arg Asn Ile Gln His
                165                 170                 175
Asp Val Leu Thr Gln Arg Gln Thr Arg Pro Tyr Tyr Asn Ala Gln Ala
            180                 185                 190
Ile Ala Arg Phe Ala Ser Lys Cys Pro Val Leu Arg Glu Leu His Leu
        195                 200                 205
Thr Val His Arg Val Gln Gly Leu Ala Pro Glu Val Lys Val Tyr Lys
    210                 215                 220
Ala Leu Gly Arg Phe Ser Ser Leu Leu His Leu Cys Val Lys Leu His
225                 230                 235                 240
Tyr Phe Pro Ser Ala Gly Asp Pro His Asp Asn Val Asp Pro Ser Thr
                245                 250                 255
Ile Pro Asp Tyr Leu Ser Arg Tyr Asp Phe Ala Met Val Arg Lys Ala
            260                 265                 270
Arg Ala Leu Tyr Ile Asn Ala Val Met Asp Asp His Leu Ala Glu Ser
        275                 280                 285
Ile Phe Asn Thr Ile Leu Ser Ser Gln Ser Thr Arg Arg Leu Ala Ser
    290                 295                 300
Leu Arg Leu Phe Pro Ala Ser Glu Leu Gln Pro Gln Ala Pro Pro Leu
305                 310                 315                 320
Phe Val Arg Asn Ala Tyr Gln Thr His Leu Phe His Gly Phe Thr Val
                325                 330                 335
Thr Arg Ser Ser Asn Pro Arg Pro Gly Val Leu Asp Ile Lys Arg Thr
            340                 345                 350
Arg Thr Ala Ile Ala Cys Pro Val Ala Glu Leu Ala Pro Phe Ser Val
        355                 360                 365
Leu Gly Arg Asp Tyr Ile Leu Glu Trp Ile Trp Pro Asn Asp Ile Thr
    370                 375                 380
Ser Phe Pro Ser Gln Asp Ala
385                 390
```

<210> 30023

<211> 109
<212> PRT
<213> A.fumigatus

<400> 30023
Leu Leu Thr Tyr Arg Phe Thr Thr Ile Asp Pro Gln Arg Ala Ile Gly
1 5 10 15
Tyr Leu Gln Ile Glu Cys Ala Cys Lys Arg Phe Lys Val Ser Asp Lys
20 25 30
Cys Lys Pro Asn Tyr Gly Ser Cys Val Asp Gly Arg Arg Ser Val Pro
35 40 45
Ile Glu Leu Leu Asp Val Ala Gly Leu Val Pro Gly Ala His Gln Gly
50 55 60
Arg Gly Leu Gly Asn Lys Phe Leu Asp Asp Leu Arg His Ala Asp Ala
65 70 75 80
Leu Ile His Val Val Asp Val Ser Gly Thr Thr Asp Ala Glu Gly Gln
85 90 95
Gln Ser Tyr Ser Ala Phe Thr Ser Cys Leu Asn Ile Ser
100 105

<210> 30024
<211> 123
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (78)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30024
Ile Ala Pro Leu Gly Lys Ala Thr Arg Gly Tyr Asp Pro Ser Val Asp
1 5 10 15
Ile Glu Trp Leu Arg Ser Glu Ile Val Arg Trp Val Leu Gly Asn Leu
20 25 30
Met Gln Lys Trp Tyr Asp Met Ile Lys Gly Asp Pro Gly Thr Ser Leu
35 40 45
Cys Leu Ser His Glu Ala Tyr Gly His Thr Gln Gly Phe Tyr Gln Lys
50 55 60
Lys Thr Cys Cys Glu Gln Ser Val Lys Ala Gly Phe Pro Xaa Ile Asp
65 70 75 80
Arg Ser Cys Leu Thr Gly Gly Cys Arg Ile His Arg Ser Lys Asn Ile
85 90 95
Thr Lys Ala Asn Phe Pro Arg Ile Trp Glu Ala Pro Pro Ala Lys Arg
100 105 110
Leu Ala Pro Leu Phe Trp Glu Lys Lys Arg Val
115 120

<210> 30025
<211> 133
<212> PRT
<213> A.fumigatus

<400> 30025
Ser Lys Ile Pro Leu His Asp Lys Pro Phe Pro Ser Ile Ile Thr Glu
1 5 10 15

```
Lys Leu Gly Asp Asn Ala Lys Gly Ala Leu His Glu Leu Ser Lys Leu
            20                  25                  30
Leu Ala Asp Glu Ala Gly Tyr Pro Ile Thr Tyr Asn His Tyr Tyr Thr
        35                  40                  45
Asp Asn Val Gln Arg Ala Arg Asn Asn Arg Trp Arg Gln Asp Leu Arg
    50                  55                  60
Thr Ser Leu Asn Asn Ala Ile Thr Gln Asp Trp Asn Ser Arg Phe His
65                  70                  75                  80
Val Asn Asn Ser Pro Asp Glu Ile Ser Arg Leu Val Thr Ser Leu Gln
                85                  90                  95
Asn His His Ile Ile Val Asp Met Glu Glu Arg Ala Cys Tyr Glu Ala
            100                 105                 110
Glu Met Asp Leu Asp Ala Tyr Tyr Lys Val Cys Phe Pro Trp Asp Thr
        115                 120                 125
Gly Asn Arg Val Tyr
    130
```

<210> 30026
<211> 70
<212> PRT
<213> A.fumigatus

<400> 30026

```
Gly Phe Phe Ser Gln Pro Trp Phe Ser Leu Ser Val Thr Gln Met Arg
1               5                   10                  15
Glu Gln Cys Leu Met His Trp Ala Phe Cys Leu Ser Asp Leu Ile Lys
            20                  25                  30
Lys Gln Cys Asp Phe Val Ile Glu Leu Pro Glu Thr Ala Val Leu Ser
        35                  40                  45
Leu Phe Arg Gly Pro Asp Ala Pro Tyr Glu Thr Ile Ser Tyr Val Arg
    50                  55                  60
Ser Gln Glu Lys Lys Ser
65                  70
```

<210> 30027
<211> 229
<212> PRT
<213> A.fumigatus

<400> 30027

```
Asp Ala Ser Cys Ala Gly Ala Arg Arg Ser Gly Leu Gly Ser Ile Ser
1               5                   10                  15
Ala Val Asp Pro Val Arg Ala Leu Glu Arg Gly Trp Thr Tyr Asp Asp
            20                  25                  30
Ala Phe Arg Ala Val Val Asp Gly Val Val Glu Arg Ile Val Leu His
        35                  40                  45
Ile Leu Val Arg Val Glu Asp Val Asp Ser Gly Asp Gly Gly Asp Val
    50                  55                  60
Ala His Val Glu Ser Gly Leu Thr Gly Gly His Asp Gly Arg Val Lys
65                  70                  75                  80
Glu Val Arg Leu Val Gly Asp Asp Gly Ala Glu Val Ala His Leu Asp
                85                  90                  95
Gly Leu Glu Gly Val His Gly Val Gly Val Cys Leu Gly Asp Val Val
            100                 105                 110
Arg Gly His Asn Ala Val Val His Asp Asp Gln Arg Thr Thr Val Ala
        115                 120                 125
```

```
Arg Ser Gly Val Arg Gly Asp Gly His Gly Leu Glu Glu Val Glu Arg
    130                 135                 140
Ala Val Gly Gly Asp Gly Gly Cys Gly Pro His Gly Ala Asp Asp Asp
145                 150                 155                 160
Asp Gly Leu Ala Ala Val Asp Cys Ser Val Glu Glu Glu Gly Arg Leu
                165                 170                 175
Leu Glu Arg Val Gly Ala Val Arg Asp Asp Gly Ala Ala His Gly Gly
            180                 185                 190
Val Val Ala Asp Asp Leu Val Asp Gly Pro Gly His Val Glu Gln Lys
        195                 200                 205
Gly Arg Arg His Val Gly Ala Ala Asp Ile Gly Asp Leu Asp Ala Gly
    210                 215                 220
His Val Ser Asn Val
225
```

<210> 30028
<211> 136
<212> PRT
<213> A.fumigatus

```
<400> 30028
Tyr Ala Asp Thr Met Arg Ser Phe Met Thr Thr Ser Ala Pro Arg Leu
1               5                   10                  15
Arg Ala Val Gly Cys Ala Ala Thr Val Thr Ala Trp Arg Arg Leu Asn
            20                  25                  30
Gly Pro Ser Ala Glu Met Ala Val Ala Gly Arg Met Ala Pro Thr Thr
        35                  40                  45
Thr Met Gly Leu Pro Gln Leu Thr Val Ala Ser Arg Lys Lys Ala Val
    50                  55                  60
Ser Ser Ser Val Ser Val Pro Cys Val Met Thr Ala Pro Leu Met Val
65                  70                  75                  80
Gly Ser Ser Gln Thr Thr Ser Leu Met Val Leu Ala Met Trp Ser Arg
                85                  90                  95
Arg Glu Asp Val Thr Ser Gly Leu Pro Thr Leu Ala Thr Trp Met Pro
            100                 105                 110
Ala Thr Leu Ala Thr Ser Ser Ile Ser Gly Thr Ala Ser Met Ser Cys
        115                 120                 125
Trp Met Pro Ile Ala Pro Ala Val
    130                 135
```

<210> 30029
<211> 154
<212> PRT
<213> A.fumigatus

```
<400> 30029
Arg Gly Arg His Pro Gly Arg Gln Cys Arg Gln Pro Arg Arg Asp Val
1               5                   10                  15
Phe Pro Ser Ala Pro His Gly Gln Asp His Gln Arg Gly Arg Leu Arg
            20                  25                  30
Arg Pro His His Glu Arg Arg Arg His His Ala Arg His Arg His Ala
        35                  40                  45
Arg Gly Asp Gly Leu Leu Pro Arg Arg Tyr Ser Gln Leu Arg Gln Ala
    50                  55                  60
His Arg Arg Arg Arg Arg His Ala Ala Arg Asn Arg His Leu Arg Arg
65                  70                  75                  80
```

```
Arg Pro Val Gln Pro Pro Pro Gly Arg Asp Arg Arg Arg Ala Pro His
                85                  90                  95
Cys Ala Gln Pro Trp Cys Ala Gly Arg His Glu Arg Pro His Cys Val
            100                 105                 110
Arg Val Leu Arg Leu Gln Asp Lys Arg Gln His His Gly His Leu Gln
        115                 120                 125
Gly Arg Arg Asp Gly Gln Pro Arg Arg His His Leu Gln Gln Ala Val
    130                 135                 140
Leu Leu Leu Pro Ala Arg His Ala His Arg
145                 150
```

<210> 30030
<211> 324
<212> PRT
<213> A.fumigatus

<400> 30030

```
Tyr Arg Cys Leu Ala Cys Thr Ala Ile Ser Leu Pro Arg Lys Gln Ser
1               5                   10                  15
Ser Ser Pro Arg Glu Ile Ala Lys Met Thr Lys Leu Ser Phe Lys Ile
            20                  25                  30
Ile Thr Leu Ala Ala Met Ile Ala Val Gly Asn Ala Ser Pro Phe Val
        35                  40                  45
Tyr Pro Arg Ala Thr Ser Pro Asn Ser Thr Tyr Val Phe Thr Asn Ser
    50                  55                  60
His Gly Leu Asn Phe Thr Gln Met Asn Thr Thr Leu Pro Asn Val Thr
65                  70                  75                  80
Ile Leu Ala Thr Gly Gly Thr Ile Ala Gly Ser Ser Asn Asp Asn Thr
                85                  90                  95
Ala Thr Thr Gly Tyr Thr Ala Gly Ala Ile Gly Ile Gln Gln Leu Met
            100                 105                 110
Asp Ala Val Pro Glu Met Leu Asp Val Ala Asn Val Ala Gly Ile Gln
        115                 120                 125
Val Ala Asn Val Gly Ser Pro Asp Val Thr Ser Ser Leu Leu Leu His
    130                 135                 140
Met Ala Arg Thr Ile Asn Glu Val Val Cys Asp Asp Pro Thr Met Ser
145                 150                 155                 160
Gly Ala Val Ile Thr His Gly Thr Asp Thr Leu Glu Glu Thr Ala Phe
                165                 170                 175
Phe Leu Asp Ala Thr Val Asn Cys Gly Lys Pro Ile Val Val Val Gly
            180                 185                 190
Ala Met Arg Pro Ala Thr Ala Ile Ser Ala Asp Gly Pro Phe Asn Leu
        195                 200                 205
Leu Gln Ala Val Thr Val Ala Ala His Pro Thr Ala Arg Asn Arg Gly
    210                 215                 220
Ala Leu Val Val Met Asn Asp Arg Ile Val Ser Ala Tyr Tyr Val Ser
225                 230                 235                 240
Lys Thr Asn Ala Asn Thr Met Asp Thr Phe Lys Ala Val Glu Met Gly
                245                 250                 255
Asn Leu Gly Ala Ile Ile Ser Asn Lys Pro Tyr Phe Phe Tyr Pro Pro
            260                 265                 270
Val Met Pro Thr Gly Lys Thr Thr Phe Asp Val Arg Asn Val Ala Ser
        275                 280                 285
Ile Pro Arg Val Asp Ile Leu Tyr Ser Tyr Gln Asp Met Gln Asn Asp
    290                 295                 300
Thr Leu Tyr Asp Ala Val Asp Asn Gly Ala Lys Gly Ile Val Val Ser
```

```
305                 310                 315                 320
Pro Ala Pro Phe
```

<210> 30031
<211> 87
<212> PRT
<213> A.fumigatus

<400> 30031

```
Ser Arg Ser Pro Gly Ser Gly Ala Gly Ser Val Ser Ser Gly Tyr Tyr
1               5                  10                  15
Asp Ala Ile Asp Asp Ile Ala Ser Thr His Ser Leu Pro Val Val Leu
            20                  25                  30
Ser Thr Arg Thr Gly Asn Gly Glu Val Ala Ile Thr Asp Ser Glu Thr
        35                  40                  45
Thr Ile Glu Ser Gly Phe Leu Asn Pro Gln Lys Ala Arg Ile Leu Leu
    50                  55                  60
Gly Leu Leu Leu Ala Glu Asp Lys Gly Phe Lys Glu Ile Lys Glu Ala
65                  70                  75                  80
Phe Ala Lys Asn Gly Val Ala
                85
```

<210> 30032
<211> 203
<212> PRT
<213> A.fumigatus

<400> 30032

```
Tyr Gln Thr Glu Cys Arg Ser Ser Ser Ser His Phe Asp His His Ala
1               5                  10                  15
Asp Glu Leu Ala Asp Ser Val Pro Pro Arg Pro Val Thr Pro Pro Leu
            20                  25                  30
Cys Glu Ser Ala Glu Cys Val His Ala Ala Ser Glu Ile Leu Tyr Ser
        35                  40                  45
Leu Asp Pro Asn Tyr Ala Glu Ile Asp Pro Cys Glu Asp Phe Glu Gln
    50                  55                  60
Tyr Val Cys Gly Gly Trp Arg Glu Arg His Asp Leu Arg Leu Asp Gln
65                  70                  75                  80
Gly Ser Met Phe Thr Gly Thr Leu Met Ala Glu Ala Ala Gln Met Arg
                85                  90                  95
Leu Arg His Ile Leu Lys Ser Thr Ser Val Pro Glu Ala Ala Asp Glu
            100                 105                 110
Glu Asn Leu Arg Lys Leu Lys Ser Ala Tyr Asn Ala Cys Leu Asp Glu
        115                 120                 125
Ala Val Ile Ser Lys Arg Gly Ser Glu Pro Leu Asp Ala Leu Leu Ala
    130                 135                 140
Gln Leu Asp Asp Ile Tyr Ser Ala Glu Ser Thr Ala Val Gly Ser Asp
145                 150                 155                 160
Val Asn Ile Thr Asp Ala Val Leu Phe Leu Met Asn Ser Gly Val Thr
                165                 170                 175
Ala Leu Val Glu Met Gly Pro Gly Val Ser Thr Ser Ala Val Gly Ile
            180                 185                 190
Arg Gln Leu Leu Val Leu Thr Gly Glu Ala Arg
        195                 200
```

<210> 30033
<211> 70
<212> PRT
<213> A.fumigatus

<400> 30033
Met Ala Asn Gly Val Leu Pro Thr Phe Arg Asn Thr Arg Arg Leu Arg
1 5 10 15
Leu Thr Phe Gly Ser Ser Ile Thr Glu Ser Glu Ile Thr Ile Ser Leu
20 25 30
Val Leu Ser Phe Val Ala Asn Glu Thr Lys Tyr Thr Ala Asn Asp Val
35 40 45
Ser Asn His His Leu Ser Trp Leu Ser Ser His Gln Ser Pro Pro His
50 55 60
Ala Leu His Pro Phe Asn
65 70

<210> 30034
<211> 219
<212> PRT
<213> A.fumigatus

<400> 30034
His Cys Leu Ile Asp Pro Ser Asp Pro Leu Ser Leu Arg His Glu Gly
1 5 10 15
Ser Glu Arg Ser Ser Ser Arg Pro Pro Phe Thr Ser Leu Ala Thr Thr
20 25 30
Pro Ile Ser Met Phe Asn Leu Leu Ser His Pro Glu Pro Glu Thr Ser
35 40 45
Leu Pro Gly Thr Pro Ala Ser Ala Ser Pro Ser Gly Arg Leu Leu Gly
50 55 60
His Ala Pro Thr Arg Asp Ile Arg Ala Glu Val Leu Asp Gly Ile Gly
65 70 75 80
Glu Ile Ile Asp Glu Leu Gly Gln Val Asp Asp Gln Ile Ala Ala Tyr
85 90 95
Ala Leu Asp His Ile His Ser Asn Glu Ile Ile Leu Thr His Thr Ser
100 105 110
Ser Thr Thr Val Gln Lys Phe Leu Leu Lys Ala Ala Ala Lys Arg Lys
115 120 125
Phe Thr Val Ile His Ala Glu Ser Tyr Pro Asn Asn His Glu Ala Thr
130 135 140
His Thr Thr Val Ser Gly Ala Ala Ser Thr Asp Glu Glu Ile Leu Ser
145 150 155 160
Thr Asp Ser Phe Gln Lys Pro Leu Ile Ala Leu Gly Ile Thr Val Ile
165 170 175
Leu Ile Pro Asp Ser Ala Val Phe Ala Leu Met Ser Arg Val Asn Lys
180 185 190
Val Ile Leu Gly Thr His Ser Val Leu Ala Asn Gly Gly Leu Val Phe
195 200 205
Thr Gly Gly Ala Arg Ala Leu Val Ser Asn Thr
210 215

<210> 30035
<211> 122
<212> PRT
<213> A.fumigatus

<400> 30035
Tyr Arg Ala Phe Leu Glu Ser His Thr Phe Cys Thr Arg Ser Tyr Arg
1 5 10 15
Ser Asn Arg Asn Ile Arg Leu Leu Lys Arg Arg Gln Ile Arg His Ser
20 25 30
Arg Ser Cys Ala Thr Ala Thr Ala Tyr Leu Leu Leu Arg Val Val Ser
35 40 45
Ala Cys Arg Thr Thr Asp Ala Ala Lys Leu Ile Glu Arg Val Gln Ser
50 55 60
Val Gly Arg Arg Leu Val Ala Ala Gln Pro Arg Glu Met Val Val Gly
65 70 75 80
Asn Ile Val Arg Arg Val Leu Gly Leu Ile Arg Asp Glu Ala Glu Asp
85 90 95
Glu Arg Asp Gly Asp Phe Thr Leu Ser Asp Ala Gly Ser Glu Gly Gln
100 105 110
Pro Gln Thr Pro Arg Val Ser Glu Gly Arg
115 120

<210> 30036
<211> 527
<212> PRT
<213> A.fumigatus

<400> 30036
Leu Glu Thr Ala Val Asn Thr Asp Ile Pro Cys Ala Leu His Val Phe
1 5 10 15
Ile Met Glu Asp Ile Ser Asp Ala Pro His Leu Thr Glu Phe Ala Asn
20 25 30
Phe Thr Pro Asn Gly Pro Leu Phe Gly Ser Ser Pro Ser Ala Asp Gly
35 40 45
Pro Ala Pro Ile Asn Gly Thr Lys Thr Ala Ser Asp Glu Asp Ser Pro
50 55 60
His Arg Glu Glu Glu Arg Arg Leu Ser Asp Asp Ala His Met Pro Val
65 70 75 80
Gln Asp Cys Gly Tyr Asn Ser Ser Glu Ser Ser Thr Gln His Ser Thr
85 90 95
Ser Asp Thr Ser Ser His Asp Met Asp Asp Asp Asp Leu Ala Pro Ser
100 105 110
Asp Ser Arg Ala Ser Ser Arg Ser Ser Ile Ser Ser Ile Pro Asp Ser
115 120 125
Val Leu Ile His Pro Pro Ser Glu Leu Lys Ser Ala Ile Gly Cys Gly
130 135 140
Thr Asp Glu Arg Ile Arg His Ser Trp Ile Asn Gln Asn Ser Pro Gly
145 150 155 160
His Gly Arg Met Glu Ala Gln Phe Lys Ser Ile Gln Thr Ile Arg Gln
165 170 175
Arg Glu Ala Ala Phe Arg Lys Pro Ser Ser Val Arg Ala Met Gln Met
180 185 190
His Thr Glu Asp Glu Asp Asp Asp Glu Phe Leu Thr Pro Pro Lys Arg
195 200 205
Arg Gly Gly His Arg Met Ser Asp Ile Ser Ile Arg Ser Ala Gly Ser
210 215 220
Ser Pro Leu Lys Arg Ser Pro Tyr Tyr Ser Pro Thr Gly Ser Thr Gly
225 230 235 240
Arg Gln Lys Val Lys Asn Glu Tyr Pro Leu Val Leu Leu His Cys Thr

```
                245                 250                 255
Leu Leu Pro Pro Ser Leu Pro Val Pro Gly Leu Ile Gly Tyr Pro Asp
            260                 265                 270
Gln Lys Ile Leu Lys Val Val Leu Pro Pro Glu Tyr Trp Arg Arg Trp
        275                 280                 285
Lys Leu Leu Glu Glu Lys Val Gly Ser Ser Val Val Arg Asp Arg Gly
    290                 295                 300
Val Leu Ile Ser His Pro Glu Asp Met Tyr Asp Leu Leu Glu Glu Arg
305                 310                 315                 320
Leu Leu Glu Ser Leu Glu Leu Gln Arg Pro Arg Leu His His Gly His
                325                 330                 335
Phe Leu Gly His Glu Asp Thr Glu Ser Asp Lys Gly Asp Gln Ser Ala
            340                 345                 350
Thr Glu Asp Ser Ala Thr Asp Asp Glu Gln Gly Glu Glu Cys Pro Asp
        355                 360                 365
Cys Gly Gly Arg Phe Pro Arg His Asp Ser Ser Arg Lys Trp Glu Ile
    370                 375                 380
Lys Val Phe Ala Ala Asn Gly Leu Met Arg Ala Gly Ala Trp Ala Ala
385                 390                 395                 400
Ala Trp Lys Glu Met Glu Lys Val Asp Val Glu Val Gly Leu Trp Leu
                405                 410                 415
Pro Ser Glu Ile Arg Arg Glu Leu Glu Lys Arg Leu Leu Asp Asn Asp
            420                 425                 430
Arg Pro Ser Thr Asp Pro Lys Leu Gln Val Pro Gln Leu Arg Glu Pro
        435                 440                 445
Ala Thr Ser Ile Thr Pro Glu Leu Tyr Asp Gln Pro Leu Arg Thr Asn
    450                 455                 460
Thr Pro Thr Pro Leu Ile His Glu Thr Ser Val Cys Val Pro Asp Glu
465                 470                 475                 480
Ala Ala Arg Pro Ser Ser Pro Ala Pro Ala Ile Thr Thr Pro Ala Lys
                485                 490                 495
Ala Thr Gly Met Pro Pro Pro Asn Val Ser Ser Glu Val Arg Gly Lys
            500                 505                 510
Asn Arg Thr Ala Tyr Ala Ala His Gln Leu Leu Pro Gly Leu Gly
        515                 520                 525
```

<210> 30037
<211> 154
<212> PRT
<213> A.fumigatus

<400> 30037

```
Arg Arg Pro Val Arg Pro Ile Lys Pro Trp Val Ser Thr Leu His Ser
1               5                   10                  15
Leu Ser Thr Arg Leu Ser Thr Ile Pro Ser Gly Met Ser Pro Met Glu
            20                  25                  30
Ser Cys Arg Thr Pro Thr Lys Glu Pro Asn Ser Pro Ser Gln Ala Arg
        35                  40                  45
Thr Asn Arg Pro Arg Cys Ser Gln Thr Phe Thr Ser Ser Ser Val Leu
    50                  55                  60
Ser Ser Pro Thr Ser Lys Trp Pro Arg Ala Pro Val Ser Ser Ala Val
65                  70                  75                  80
Ser Cys Cys Ser Leu Thr Thr Trp Met Arg Leu Thr Gly Asn Gly Trp
                85                  90                  95
Val Thr Thr Pro Ala Arg Ser Ser Pro Thr Ile Ser Ala Arg Val Thr
            100                 105                 110
```

```
Met Arg Pro Ser Thr Ala Ala Ala Thr Thr Met Ser Pro Met Pro Thr
        115                 120                 125
Arg Asn Ser Thr Thr Thr Pro Arg Thr Gly Pro Lys Arg Ser Trp Ser
    130                 135                 140
Gly Gly Leu Thr Ala Ser Ser Pro Gly Pro
145                 150
```

<210> 30038
<211> 100
<212> PRT
<213> A.fumigatus

<400> 30038

```
Gln Val Asn Arg Gly Asn Ser Thr Ile Ala Asn Ala Ile Gln Asn Pro
1               5                   10                  15
Pro Lys Ser Leu Ser Glu Lys Trp Ala Glu Leu Pro Thr Gly Ala Lys
            20                  25                  30
Ala Gly Val Tyr Ile Gly Ala Gly Cys Val Gly Ala Ala Leu Leu Ala
        35                  40                  45
Gly Phe Ile Phe Phe Phe Ile Ala Gln Arg Lys Lys Gly Arg Leu Glu
    50                  55                  60
His Ala Leu Glu Asp Ala Lys Trp Ala Asn Glu Arg Thr Glu Met Ser
65                  70                  75                  80
Thr Phe Gln Asn Asp Trp Lys Gln Ser Glu Trp Lys His Lys Gly Tyr
                85                  90                  95
Gln Pro Val Asn
            100
```

<210> 30039
<211> 86
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (83)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30039

```
Ala Leu Ser Arg Thr Ile Gly Ser Arg Ala Ser Gly Asn Thr Arg Asp
1               5                   10                  15
Thr Ser Arg Ser Ile Ser Pro Ala Leu Gln Asn Asp Leu Val Leu Gly
            20                  25                  30
Ser Leu Ser Lys Gly Cys Pro Met Ser Leu Leu Pro Leu Asn Ala Leu
        35                  40                  45
Phe Ala Ala Gly Val Ser Glu Thr Tyr Val Leu Ser Arg Ala Ala Leu
    50                  55                  60
Leu Val Lys Leu Arg Gly Gly Ile Val Glu Leu Gly Val Gly Arg Arg
65                  70                  75                  80
Leu Val Xaa Asn Val Phe
                85
```

<210> 30040
<211> 79
<212> PRT
<213> A.fumigatus

<400> 30040
Thr Thr Gly Thr Asn Pro Met Asn Ile Met Asp Arg Val Val Glu Gln
1 5 10 15
Ser Ser Asp Ser His Trp Tyr Asn Asp Tyr Asn Asn His Leu Phe Ser
20 25 30
Ser Asp Pro Lys Gly Leu Cys Ile Thr Ser His Pro Thr Ser Thr Pro
35 40 45
Ser Thr Ala Ala Glu Cys Leu Thr Asn Val Ile Ser Pro Asn Pro Val
50 55 60
Cys Leu Val Ser Arg Tyr Pro Ser Gly Thr Ser Ala Arg Asp Thr
65 70 75

<210> 30041
<211> 280
<212> PRT
<213> A.fumigatus

<400> 30041
Ser Val Val Leu Pro Ala Ala Trp Leu Arg His Pro Ile Met Ser Leu
1 5 10 15
Leu Tyr Leu Val Ala Leu Phe Val Ala Ser Ile Cys Ser Val Thr Ala
20 25 30
Gln Thr Trp Thr Ser Cys Asn Pro Leu Thr Thr Thr Cys Pro Pro Asp
35 40 45
Gln Ala Leu Gly Ile Asn Thr Thr Phe Thr Phe Asn Lys Thr Leu Asp
50 55 60
Asp Thr Ile Trp Asn Val Thr Asn Gly Val Leu Ser His Thr Asp Glu
65 70 75 80
Gly Thr Glu Phe Thr Ile Thr Gly Glu Asn Gln Ser Pro Thr Met Gln
85 90 95
Ser Asn Phe Tyr Ile Phe Phe Gly Ile Val Glu Ser His Val Lys Met
100 105 110
Ala Lys Gly Ala Gly Ile Ile Ser Ser Ile Val Leu Gln Ser Asp Asp
115 120 125
Leu Asp Glu Ile Asp Trp Glu Trp Val Gly Tyr Asn Thr Ser Glu Val
130 135 140
Gln Ser Asn Tyr Phe Gly Lys Gly Asn Asn Glu Thr Phe Asn Arg Gly
145 150 155 160
Gly Tyr His Tyr Val Pro Asn Ala Asp Thr Glu Phe His Asn Tyr Thr
165 170 175
Thr Tyr Trp Thr Gln Glu Lys Leu Glu Trp Trp Ile Asp Gly Lys Leu
180 185 190
Ala Arg Thr Leu Thr Tyr Glu Asp Ser Gln Gly Ala Gly Lys Tyr Tyr
195 200 205
Pro Gln Thr Pro Cys Asn Ile Arg Tyr Gly Ile Trp Pro Ala Gly Ile
210 215 220
Lys Gly Asn Ala Gln Gly Thr Ile Glu Trp Ala Gly Gly Leu Val Asp
225 230 235 240
Tyr Ser Lys Ala Pro Phe Thr Met Val Leu Gln Ser Val Arg Val His
245 250 255
Asp Phe His Thr Gly Lys Glu Tyr Asn Tyr Thr Asp His Ser Gly Ser
260 265 270
Trp Gln Ser Ile Asp Val Ile Ala
275 280

<210> 30042
<211> 146
<212> PRT
<213> A.fumigatus

<400> 30042
Pro Ala Asp Thr Pro Pro Pro Pro Pro Pro Pro Leu Gly Asn Thr Pro
1 5 10 15
Pro His Asp Pro Ala Pro Gly Thr Ala Leu Arg Ala Pro Pro Pro Gln
20 25 30
Arg Arg Ile Ala Pro Pro Arg Thr Arg Ser Ser Arg Asn Thr Ser Ala
35 40 45
Pro Ala Ser Arg Ser Arg Asp Val Pro Ala Met Asp Pro Leu Asp Arg
50 55 60
Thr Pro Arg Gly Ser Arg Arg Arg Ser Pro Cys Pro Ala Pro Pro Pro
65 70 75 80
Ala Pro Pro Ala Phe Pro Gly Arg Ile Pro Leu Leu Arg Glu Leu Pro
85 90 95
Ala Gly Asn Pro Val Arg Arg Arg Ala Arg Arg Arg Ser Ala Ala Thr
100 105 110
Ala Leu Pro Pro Leu Leu Leu Arg Pro Asp Arg Ser Gly Trp Cys Val
115 120 125
Ser Arg Gly Arg Ile Pro Gly Arg Trp Gly Val Gly Arg Glu Gly Trp
130 135 140
Glu Thr
145

<210> 30043
<211> 360
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (6),(10),(11),(12),(13),(14),(19),(20),(21),(22)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30043
Asn Gly Leu Leu Ala Xaa Gln His Tyr Xaa Xaa Xaa Xaa Xaa Val Pro
1 5 10 15
Arg Ala Xaa Xaa Xaa Xaa Phe Ala Ile Ala Pro Trp Arg Ser Gly Asp
20 25 30
Leu Glu Thr Ala Ala Phe Asp Ala Gly Cys Val Ile Ser Ala Leu Arg
35 40 45
Ser Tyr Ala Gln Trp Asp Ala Thr Pro Gln Ala Arg Ala Val Ala Asp
50 55 60
Leu Pro Ile Leu Leu Arg Arg Ile Gly Asp Ala Pro Pro Gly Leu Pro
65 70 75 80
Pro Ser Met Arg Ser Ala Pro Thr Asp Lys Cys Leu Arg Gly Leu Arg
85 90 95
Val Leu Glu Leu Ser Arg Val Ile Ala Thr Pro Leu Ser Gly Lys Thr
100 105 110
Leu Ala Ala His Gly Ala Tyr Val Leu Trp Val Thr Ser Pro Asn Leu
115 120 125
Pro Asp Leu Pro Pro Ile Asp Arg Glu Phe Gly Arg Gly Lys Arg Thr
130 135 140

```
Ile Gln Ile Asp Leu Asp Ala Ala Glu Gly Glu Ala Glu Leu Trp Arg
145                 150                 155                 160
Leu Ile Asp Asp Ala His Val Phe Val Gln Gly Phe Arg Pro Gly Ala
                165                 170                 175
Leu Ala Ala Arg Gly Phe Ser Pro Glu Thr Leu Ala Ala Arg Ala Ala
            180                 185                 190
Ala Gln Gly Arg Gly Ile Val Cys Ala Asn Leu Ser Ala Tyr Gly Pro
        195                 200                 205
Thr Gly Pro Trp Arg Ala Arg Arg Gly Phe Asp Ser Leu Val Gln Thr
    210                 215                 220
Cys Ser Gly Met Asn Val Ser Glu Ala Glu Gln Tyr Gly Ala Gly Glu
225                 230                 235                 240
Ala Gly Arg Ala Ala Pro Cys Gln Val Leu Asp His Ala Ala Gly Tyr
                245                 250                 255
Phe Leu Ala Ala Gly Val Glu Ala Ala Val Tyr Arg Gln Ala Thr Glu
            260                 265                 270
Gly Gly Ser Trp Val Val Asp Val Ser Leu Ala Gly Val Met Lys Tyr
        275                 280                 285
Leu Arg Ser Leu Gly Gln Tyr Glu Gly Arg Thr Gly Phe Asp Glu Gly
    290                 295                 300
Arg Asp Tyr Val Ser Leu Ala Asp Val Pro Glu Gly Tyr Leu Glu Thr
305                 310                 315                 320
Arg Gln Thr Gly Phe Gly Glu Met Thr Phe Val Arg His Ser Ala Ala
                325                 330                 335
Val Glu Gly Val Glu Val Gly Trp Asp Val Met His Lys Pro Leu Gly
            340                 345                 350
Ser Asp Glu Lys Arg Trp Leu Leu
        355                 360
```

<210> 30044
<211> 160
<212> PRT
<213> A.fumigatus

<400> 30044

```
Asp Pro Arg Arg Pro Arg Arg Ile Arg Pro Leu Gly His Val Ser Gln
1               5                   10                  15
Pro Ser Arg Pro Thr Pro His Arg Pro Gly Ile Arg Pro Arg Glu Thr
            20                  25                  30
His His Pro Asp Arg Ser Gly Arg Ser Arg Arg Gly Gly Arg Ala Val
        35                  40                  45
Ala Ala Asp Arg Arg Arg Ala Arg Leu Arg Thr Gly Phe Pro Ala Gly
    50                  55                  60
Ser Ser Arg Ser Lys Gly Ile Leu Pro Gly Asn Ala Gly Gly Ala Gly
65                  70                  75                  80
Gly Gly Ala Gly Gln Gly Asp Arg Leu Arg Glu Pro Leu Gly Val Arg
                85                  90                  95
Ser Asn Gly Ser Met Ala Gly Thr Ser Arg Leu Arg Leu Ala Gly Ala
            100                 105                 110
Asp Val Phe Arg Asp Glu Arg Val Arg Gly Gly Ala Ile Arg Arg Trp
        115                 120                 125
Gly Gly Gly Ala Arg Ser Ala Val Pro Gly Ala Gly Ser Cys Gly Gly
    130                 135                 140
Val Phe Pro Ser Gly Gly Gly Gly Gly Gly Gly Val Ser Ala Gly Tyr
145                 150                 155                 160
```

<210> 30045
<211> 247
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (203)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30045
Tyr Arg Gln Pro Leu Gly Glu Asp Gln Glu Ile Arg Val Asn Trp Ala
1 5 10 15
Tyr Gln Ser Asn Ser Ala Asn Lys Glu Asp Thr Ser Ser His Phe His
20 25 30
Ile Phe Val Gly Asp Leu Ser Asn Glu Val Asn Asp Glu Ile Leu Leu
35 40 45
Gln Ala Phe Ser Ala Phe Gly Ser Val Ser Glu Ala Arg Val Met Trp
50 55 60
Asp Met Lys Thr Gly Arg Ser Arg Gly Tyr Gly Phe Val Ala Phe Arg
65 70 75 80
Glu Arg Ala Asp Ala Glu Lys Ala Leu Asn Ala Met Asp Gly Glu Trp
85 90 95
Leu Gly Ser Arg Ala Ile Arg Cys Asn Trp Ala Asn Gln Lys Gly Gln
100 105 110
Pro Ser Ile Ser Gln Gln Gln Ala Met Ala Ala Met Gly Met Thr Pro
115 120 125
Thr Thr Pro Phe Gly His His His Phe Pro Thr His Gly Val Gln Ser
130 135 140
Tyr Asp Met Val Val Gln Gln Thr Pro Gln Trp Gln Thr Thr Cys Tyr
145 150 155 160
Val Gly Asn Leu Thr Pro Tyr Thr Thr Gln Asn Asp Leu Val Pro Leu
165 170 175
Phe His Asn Phe Gly Tyr Val Leu Glu Thr Arg Leu Gln Ala Asp Arg
180 185 190
Gly Phe Ala Phe Ile Lys Met Asp Thr His Xaa Asn Ala Ala Met Ala
195 200 205
Ile Cys Gln Leu Asn Gly Tyr Asn Val Asn Gly Arg Pro Pro Glu Met
210 215 220
Gln Arg Thr Phe Ala Leu Ala Phe Phe Ala Leu Ile Leu Arg Leu Leu
225 230 235 240
Leu Leu Thr Val Val Val Gly
245

<210> 30046
<211> 125
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (11)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30046
Ala Leu Arg Ala Gln Gly Ile Asp Arg Lys Xaa Tyr Leu His Trp Ile

```
1               5                   10                  15
Ser Pro Leu Gln Pro Tyr Met Ala Ile Val Ala Val Ile Leu Gly Phe
            20                  25                  30
Ser Thr Ala Leu Phe Asn Gly Tyr Ala Val Phe Lys Pro Phe Asp Ala
        35                  40                  45
Gln Gly Phe Val Thr Ser Tyr Phe Gly Leu Ala Phe Phe Val Val Met
    50                  55                  60
Phe Ala Phe Trp Lys Val Val Lys Arg Thr Lys Trp Val Asp Pro Ala
65                  70                  75                  80
Thr Ala Asp Ile Tyr Thr Gly Lys Ala Glu Ile Asp Glu Glu Cys Arg
                85                  90                  95
Ile Trp Glu Asp Gly Thr Trp Asp Glu Ile His Lys Ala Glu Leu Ala
            100                 105                 110
Gln Met Asn Ile Ile Arg Arg Met Trp Glu Arg Met Trp
        115                 120                 125

<210> 30047
<211> 254
<212> PRT
<213> A.fumigatus

<400> 30047
Ser Val Gln Tyr Pro His Tyr Leu Pro Val Trp Asp His Ser Glu Lys
1               5                   10                  15
Tyr Pro Pro Leu Glu Pro Phe Thr His Ser Asp Pro Gly Leu Arg Ala
            20                  25                  30
Asp Pro Ser Phe Pro Asp Leu Leu Lys Pro Gly Thr Lys Ile Gln Asn
        35                  40                  45
Leu Thr Pro Thr Ile Gly Ser Glu Val Thr Gly Val Gln Leu Ser Ser
    50                  55                  60
Leu Ser Ala Ala Gly Lys Asp Gln Leu Ala Leu Leu Val Ala Gln Arg
65                  70                  75                  80
Arg Val Val Val Phe Arg Asp Gln Asp Phe Ala Asp Leu Pro Ile Ala
                85                  90                  95
Asp Ala Leu Glu Phe Gly Ser His Phe Gly Arg His His Ile His Pro
            100                 105                 110
Thr Ser Gly Gln Pro Glu Gly Tyr Pro Glu Ile His Leu Val His Arg
        115                 120                 125
His Asn Ser Gln Gly Glu Leu Asp Ala Phe Phe Ala Asp Arg Asn Ser
    130                 135                 140
Thr Val Ala Trp His Ser Asp Val Thr Tyr Glu Ala Gln Pro Pro Gly
145                 150                 155                 160
Thr Thr Phe Leu Tyr Ile Leu Asp Ser Pro Glu Val Gly Gly Asp Thr
                165                 170                 175
Val Phe Val Asp Gln Val Glu Ala Tyr Arg Arg Leu Ser Pro Ala Ile
            180                 185                 190
Lys Glu Arg Leu His Gly Leu Lys Ala Val His Ser Gly Phe Glu Gln
        195                 200                 205
Ala Glu Phe Ser Arg Gln Arg Gly Gly Val Val Arg Arg Asp Pro Val
    210                 215                 220
Lys His Glu His Pro Ile Val Arg Thr His Pro Val Thr Gly Glu Lys
225                 230                 235                 240
Ala Leu Phe Val Asn Gly Gly Cys Lys Cys Pro Ser Pro Thr
                245                 250

<210> 30048
```

<211> 111
<212> PRT
<213> A.fumigatus

<400> 30048
Gly Asn Glu Pro Ser Asp Glu Cys Ala Val Thr Arg Ser Ile Val Gly
1 5 10 15
Leu Lys Lys Glu Glu Ser Asp Ala Leu Leu Gly Phe Leu Leu Asn His
20 25 30
Val Gly Arg Gly Ile Asp Tyr Gln Ala Arg Ile Lys Trp Ala Pro Lys
35 40 45
Thr Val Val Val Trp Asp Val Ser His Pro Thr Leu Ser Ser Pro Leu
50 55 60
Asp Asp Gln Thr Leu Met Arg Glu Glu Pro Arg His Gly Thr Phe Cys
65 70 75 80
Ala Gly Arg Leu Asp Asp Gly Gly Thr Ser Ser Phe Gly Ala Asp Tyr
85 90 95
Pro Gln Ala Glu Arg Pro Tyr Glu Thr Pro Tyr Val Pro Glu Glu
100 105 110

<210> 30049
<211> 149
<212> PRT
<213> A.fumigatus

<400> 30049
Arg Leu Pro Ser Ala Pro Arg Ser Arg Val Cys Ser Ser Arg Pro Cys
1 5 10 15
Gln Leu Pro Glu Arg Thr Ser Trp His Phe Leu Trp Arg Asn Ala Glu
20 25 30
Trp Trp Ser Phe Ala Thr Arg Ile Ser Pro Thr Cys Leu Leu Arg Thr
35 40 45
Arg Ser Ser Ser Ala Pro Thr Leu Ala Ala Thr Ile Ser Thr Arg Leu
50 55 60
Pro Ala Ser Gln Arg Gly Thr Pro Arg Ser Ile Trp Cys Thr Gly Thr
65 70 75 80
Thr Ala Arg Ala Ser Trp Thr Arg Ser Ser Pro Thr Gly Thr Ala Arg
85 90 95
Leu Pro Gly Thr Arg Thr Ser Arg Thr Lys Arg Ser Arg Arg Ala Pro
100 105 110
Pro Ser Ser Ile Ser Trp Thr Pro Pro Arg Ser Ala Glu Thr Arg Cys
115 120 125
Ser Trp Thr Arg Ser Arg Arg Ile Gly Asp Ser Arg Arg Pro Ser Lys
130 135 140
Ser Asp Cys Thr Gly
145

<210> 30050
<211> 97
<212> PRT
<213> A.fumigatus

<400> 30050
Pro Thr Tyr Ala Ala Arg Gly Asn Arg Arg Ile Pro Tyr Asn Arg Val
1 5 10 15
Ser Ile Gly Glu Tyr Ile Leu Ser Val Asp Ile Val Val Ser Arg Asp

```
            20                  25                  30
Ala Met Lys Pro Lys Ser Glu Thr Val Thr Leu Trp Asp Asp Val Leu
        35                  40                  45
Ser Glu Ser Arg Ala Met Arg Ser Ser Cys Leu Ser Leu Ala Cys Arg
    50                  55                  60
His Met Tyr Ser Ser Asn Ser Thr Asn Val Ser Lys Lys Lys Asn Cys
65                  70                  75                  80
Phe His Leu Pro Leu Gly Gly Arg Trp Gln Glu Val Asp Leu Asn Ile
                85                  90                  95
Leu
```

<210> 30051
<211> 107
<212> PRT
<213> A.fumigatus

<400> 30051

```
Val Tyr Arg Ser His Arg Asn Asn Gln Ser Val Asp Gly Ser Ser Leu
1               5                   10                  15
Trp Asn Asn Ile Asp Ala Ile Asn Ser Ile Asn Gln Thr Tyr Glu Met
            20                  25                  30
Ala Asp Asn Phe Asp Ile Trp Asn Tyr Arg Ser His Leu Leu Leu Thr
        35                  40                  45
Glu Leu Lys Asp Gln Ile Thr Arg Phe Ser Cys Ser Gly Gly Ile Trp
    50                  55                  60
Thr Gln Thr Thr Asp Val Glu Gly Glu Val Asn Gly Leu Leu Thr Tyr
65                  70                  75                  80
Asp Arg Arg Leu Lys Arg Val Asp Glu Lys Met Trp Lys Asp Asp Ile
                85                  90                  95
Gln Ala Leu Tyr Asp Ala Ala Lys Ala Arg Thr
            100                 105
```

<210> 30052
<211> 144
<212> PRT
<213> A.fumigatus

<400> 30052

```
Gln Ser Val Val Thr Ser Ser Pro Ala Ser Ser Pro Phe Ile Thr Ser
1               5                   10                  15
Asn Asn Lys Arg Thr Ser Trp Thr Val Arg Ala Ile Gly Pro Ala Thr
            20                  25                  30
Ser Cys Val Ser Val Thr Gly Met Ile Pro Leu Arg Glu Ile Cys Pro
        35                  40                  45
Leu Val Gly Leu Asn Pro Met Ile Glu His Ala Asp Ala Gly Glu Arg
    50                  55                  60
Ser Glu Phe Ile Val Ser Pro Pro His Pro Thr Ser Ala Arg Phe Ala
65                  70                  75                  80
Ala Arg Ala Ala Ala Val Pro Pro Asp Glu Pro Pro Gly Val Pro Pro
                85                  90                  95
Glu Val Ile Pro Val Pro Arg Leu Thr Ser Gln Arg Arg Asn Ser Asp
            100                 105                 110
Thr Leu Gln Arg Lys Phe Val Glu Ile Gly Leu Thr Lys Asp Asn Gly
        115                 120                 125
Ala Ser Ala Thr Gln Leu Arg Asp Asp Glu Gly Val Gly Phe Cys Leu
```

130 135 140

<210> 30053
<211> 317
<212> PRT
<213> A.fumigatus

<400> 30053
Lys Pro Ser Ile Pro Tyr Arg Gln Lys Pro Thr Pro Ser Ser Ser Arg
1 5 10 15
Ser Cys Val Ala Leu Ala Pro Leu Ser Leu Val Arg Pro Ile Ser Thr
20 25 30
Asn Phe Arg Trp Arg Val Ser Leu Phe Leu Arg Trp Glu Val Arg Arg
35 40 45
Gly Thr Gly Met Thr Ser Gly Gly Thr Pro Gly Gly Ser Ser Gly Gly
50 55 60
Thr Ala Ala Ala Leu Ala Ala Asn Leu Ala Leu Val Gly Cys Gly Gly
65 70 75 80
Asp Thr Met Asn Ser Leu Arg Ser Pro Ala Ser Ala Cys Ser Ile Ile
85 90 95
Gly Phe Arg Pro Thr Arg Gly Gln Ile Ser Arg Arg Gly Ile Ile Pro
100 105 110
Val Thr Asp Thr Gln Asp Val Ala Gly Pro Met Ala Arg Thr Val Gln
115 120 125
Asp Val Arg Leu Leu Phe Asp Val Met Lys Gly Glu Asp Ala Gly Asp
130 135 140
Glu Val Thr Thr Asp Cys Gln Arg Asp Ala Met Glu Arg Ser Ser Glu
145 150 155 160
Thr Cys Gly Arg Arg Lys Arg Ile Gly Val Leu Arg Ser Phe Phe Ala
165 170 175
Asp Asp Gly Asp Pro Glu Gly Ser Ile Val Asn Gln Thr Val Leu Asp
180 185 190
Ala Leu Asp Lys Ala Arg Ala Asn Val Pro Val Glu Leu Val Thr Leu
195 200 205
Ser Pro Gln Arg Ala His Trp Asp Ile Pro Thr Leu Ile Ser Thr Ala
210 215 220
Asp Met Gln Ala Tyr Glu Phe Arg Ser Val Ile Asp Thr Phe Leu Gln
225 230 235 240
Ser Ser Leu Ile Ala Phe Thr Pro His Asp Ser Leu Asn Ser Ile Val
245 250 255
Ala Ser Gly Glu Tyr Leu Gln Glu Ala Val Thr Pro Ala Leu Tyr Arg
260 265 270
Thr Leu Gln Lys Asp Gly Pro Tyr Thr Met Gln Ser Pro Glu Tyr Glu
275 280 285
Ser Arg Leu Ala Thr Ile Ala Ala Leu Lys Lys Ser Val Glu Asp Cys
290 295 300
Phe Glu Ser Ser Pro Arg Gly Gly Arg Thr Glu Ser His
305 310 315

<210> 30054
<211> 214
<212> PRT
<213> A.fumigatus

<400> 30054
Leu Ser Cys Ser Lys Lys Gly Asp Met Gly Ser Ile Gly Ser Ile Asp

```
1               5                   10                  15
Ile Gln Glu Leu Thr Val Ser Glu Tyr His Asp Ala Leu Arg Asp Arg
            20                  25                  30
Arg Thr Thr Cys Thr Glu Val Val Val Ala Tyr Leu Asp Arg Ile Ser
        35                  40                  45
Arg Tyr Asn Ser Leu Leu Lys Ala Leu Ile Thr Val Asn Lys Asn Ala
    50                  55                  60
Leu Asp Val Ala Arg Gln Arg Asp Gln Glu Thr Glu Ala Leu Leu Gln
65                  70                  75                  80
Gln His Gly Lys Asp His Thr Leu Pro Pro Leu His Gly Val Pro Val
                85                  90                  95
Ile Leu Lys Asp Thr Tyr Ser Thr Leu Asp Met Pro Thr Thr Ser Gly
            100                 105                 110
Val Lys Ala Leu His Ser Leu Gln Thr Lys Ala Asp Ala Phe Val Val
        115                 120                 125
Thr Lys Leu Arg Arg Ala Gly Ala Ile Ile Leu Gly Lys Ala Asn Leu
    130                 135                 140
His Glu Leu Ser Leu Glu Gly Val Thr Val Ser Ser Leu Gly Gly Gln
145                 150                 155                 160
Thr Arg Asn Arg Tyr Asp Leu Arg Arg Asp Thr Arg Arg Phe Val Arg
                165                 170                 175
Trp Asp Gly Cys Cys Ser Ser Gly Glu Ser Ser Thr Arg Arg Met Trp
            180                 185                 190
Trp Gly Tyr Asp Glu Phe Ala Thr Leu Ala Cys Val Gly Val Leu Asp
        195                 200                 205
His Arg Ile Gln Thr Asn
    210
```

<210> 30055
<211> 209
<212> PRT
<213> A.fumigatus

<400> 30055

```
Leu Ser Arg His Ser His Val Ala Asp Thr Tyr Arg Thr Arg Thr Met
1               5                   10                  15
Pro Pro Lys Gly Thr Lys Pro Thr Asn Asp Glu Leu Leu Ala Gln Phe
            20                  25                  30
Asp Asp Leu Gly Ile Asp Ser Thr Thr Glu Lys Arg Pro Ser Lys Pro
        35                  40                  45
Ile Ala Ala Ser Thr Thr Ala Gln Ser Glu Asp Asp Ile Leu Ala Glu
    50                  55                  60
Leu Asp Asn Leu Ala Ser Gln Arg Pro Asn Ser Gly Pro Gly Thr Pro
65                  70                  75                  80
Arg Leu Ser Thr Asn Glu Pro Arg Pro Ala Thr Lys Ser Pro Lys Pro
                85                  90                  95
Ala Ala Val Ala Thr Pro Arg Ser Ser Glu Asp Lys Ser Ala Pro Arg
            100                 105                 110
Lys Ser Gly Glu Ser Val Arg Ser Ala Pro Ser Gly Asn Lys Ala Thr
        115                 120                 125
Thr Thr Gln Pro Ser Glu Gln Glu Lys Pro Lys Ala Gln Glu Ala Pro
    130                 135                 140
Ala Ser Gly Gly Gly Gly Trp Trp Gly Gly Ile Phe Ala Thr Ala Thr
145                 150                 155                 160
Ala Ala Met Lys Gln Ala Glu Ala Ala Val Lys Glu Ile Gln Gln Asn
                165                 170                 175
```

```
Glu Glu Ala Gln Lys Trp Ala Gln Gln Val Arg Gly Asn Val Gly Val
            180                 185                 190
Leu Arg Asp Leu Gly Glu Trp Ala Met Leu Val Phe Ser Phe Asp Ser
        195                 200                 205
Cys
```

<210> 30056
<211> 140
<212> PRT
<213> A.fumigatus

<400> 30056

```
Tyr Ser Leu Gly Gly Glu Leu Lys Asn Lys Ala Leu Pro Thr Phe Thr
1               5                  10                  15
Ser Leu Leu His Thr Ile Ala Pro Pro Ile Ser Ser His Glu Arg Leu
            20                  25                  30
Gln Ile His Val Thr His Asp Ile Ser Gly Tyr Pro Ala Ile Asp Pro
        35                  40                  45
Ile Val Tyr Ser Val Phe Ser Arg Val Met Ala Gln Val Glu Gly Gly
    50                  55                  60
Asp Leu Leu Val Ile Gln Arg Gly Gln Glu Ser Ala Pro Lys Arg Gly
65                  70                  75                  80
Leu Asp Leu Gly Thr Ser Phe Ser Thr Ala Gly Trp Gln Asp Gly Pro
                85                  90                  95
Trp Trp Arg Thr Val Thr Pro Gly Thr Pro Arg Ser Ile Ala Gly Val
            100                 105                 110
Arg Gly Thr Gly Glu Ala Thr Lys Leu Ala Arg Ala Ser Ala Glu Ser
        115                 120                 125
Tyr Ala Thr Glu Tyr Phe Ala Leu Arg Gly Arg Val
    130                 135                 140
```

<210> 30057
<211> 162
<212> PRT
<213> A.fumigatus

<400> 30057

```
Ala Ile Ser Gln Thr Ser Ser Thr Glu Leu Phe Gln Ala Gly Pro Thr
1               5                  10                  15
Thr Glu Met Ala Thr Pro Pro Gly Val Val Asp Val Pro Glu Val Thr
            20                  25                  30
Glu Glu Glu Val Ala Phe Ala Leu Tyr Leu His Asp Pro Ile His Gly
        35                  40                  45
Ile Ala Phe His Thr Ile Ser Gln Thr Ile Pro Arg Lys Trp Ile Asp
    50                  55                  60
Trp Leu Asp Ala Glu Ala Pro Ala Thr Ala Asp Pro Ser Val Glu Asp
65                  70                  75                  80
Ala Lys Ala Pro Arg Thr Thr Val Pro Glu Asp Ile Ala Glu Ile Val
                85                  90                  95
Ala Ser Gly Gly Val Asp Pro Arg Glu Trp Val Ala Glu Trp Leu Glu
            100                 105                 110
Glu Ser Leu Ala Leu Ala Ile Gly Val Val Ala Gln Arg Tyr Val Ala
        115                 120                 125
Arg Arg Met Gly Val Gly Glu Arg Gly Pro Gly Lys Gly Lys Met Arg
    130                 135                 140
```

```
Ala Glu Gln Ala Ser Val Val Glu Ser Gly Ala Gly Glu Ala Ala Arg
145                 150                 155                 160
Ala Leu


<210> 30058
<211> 233
<212> PRT
<213> A.fumigatus

<400> 30058
Gln Val Leu Val Ala Gly Ala Leu Asn Ala Glu Val Ala Ala Ala Asn
1               5                   10                  15
Val Val Asp Gly Leu Val Val Asp His Glu Ala Ala Val Gly Val Leu
            20                  25                  30
Gln Gly Gly Val Ser Gly Gln Asp Gly Val Val Gly Leu Asn Asn Gly
        35                  40                  45
Gly Gly Val Leu Gly Ser Arg Val Asp Ala Glu Phe Gln Leu Arg Leu
    50                  55                  60
Leu Ala Ile Val His Arg Glu Thr Leu His Gln Gln Ser Thr Glu Thr
65                  70                  75                  80
Gly Thr Gly Thr Thr Thr Glu Arg Val Glu Asp Gln Glu Ser Leu Glu
                85                  90                  95
Thr Ser Ala Val Val Gly Asp Pro Ala Asp Leu Val Glu Asn Leu Val
            100                 105                 110
Asp His Leu Leu Ser Asn Gly Val Val Thr Thr Ser Ile Val Val Arg
        115                 120                 125
Gly Ile Leu Leu Ala Arg Asp His Val Leu Gly Val Glu Lys Ala Thr
    130                 135                 140
Val Gly Ala Gly Ala Asp Leu Ile Asp His Ile Gly Leu Glu Ile Thr
145                 150                 155                 160
Val Asp Gly Thr Gly Asn Ile Phe Ala Leu Ala Phe Thr Leu Ser Asp
                165                 170                 175
His Lys Val Val Ser Arg Arg Thr Ser Ala Asn Ser Lys Arg Thr Ser
            180                 185                 190
Phe Arg Glu Glu Ser Ala Glu Ser Val Val Gly Val Gly Leu Leu Ala
        195                 200                 205
Leu Leu Gly Gln Val Thr Ile Gly Leu Gly Asn Ser Lys Lys Met Ser
    210                 215                 220
Val Asn Leu Arg Val Asn Ser Lys Arg
225                 230

<210> 30059
<211> 100
<212> PRT
<213> A.fumigatus

<400> 30059
Arg Gln Ala Asn Ala Thr Lys Ser Gly Tyr Ala Ile Trp Gln Leu Tyr
1               5                   10                  15
Ala Ala Ser Leu Pro Ile Ala Ile Asn Thr Asn Thr Ile Lys Gln Pro
            20                  25                  30
Thr Ser Phe Thr Leu Asp Thr Phe Thr Leu Ser Ser Thr Met Glu Arg
        35                  40                  45
Thr Ile Ser Pro Leu Leu Asp Gln Pro Leu Leu Leu Thr Gln Ser Cys
    50                  55                  60
```

```
Asn Ala Arg Phe Phe Asn Leu Ile Leu Lys Thr Pro Pro Ser Ala Lys
65                  70                  75                  80
Ala Lys Tyr Asn Gln Pro Ala Ser Phe Gln Trp Ile Thr His Gln Pro
                85                  90                  95
Pro Asn Arg Val
            100
```

<210> 30060
<211> 137
<212> PRT
<213> A.fumigatus

<400> 30060

```
Ile Tyr Ser Ile Ser Tyr Gln Ala Gln His Asp His Ile Asp His Phe
1               5                   10                  15
Tyr Ser His Gln Tyr Ile Arg Val Glu Asp Asn Ser Ile Leu Lys Met
            20                  25                  30
Lys Asn Phe Asn Pro Leu Val Leu Leu Ser Leu Ile Pro Leu Val Val
        35                  40                  45
Ala Asn Val Glu Lys Thr Ile Phe Val Ala Pro Gln Pro Ser His Ile
    50                  55                  60
Pro Ser Thr Asp Ser Thr Leu Asp Asp Leu Gly Leu Glu Arg Leu Ser
65                  70                  75                  80
Pro Ser Tyr Pro Thr Leu Arg Thr Phe Ile Asn Ala Ser Phe Pro Thr
                85                  90                  95
Pro Asp Ser Pro Gly Thr Asp Ser Trp Phe Phe Leu Glu Asn Leu Thr
            100                 105                 110
Pro Gly Gln Arg Tyr Glu Val Arg Ile Cys Tyr Leu Ala Thr Val Arg
        115                 120                 125
Arg Leu Pro Ser His Cys Asn Gln His
    130                 135
```

<210> 30061
<211> 174
<212> PRT
<213> A.fumigatus

<400> 30061

```
Gln Arg Lys Gly Gln Gly Lys Tyr Val Pro Arg Thr Ile Tyr Cys Asp
1               5                   10                  15
Leu Glu Pro Asn Val Val Asp Glu Val Arg Thr Gly Thr Tyr Arg Ser
            20                  25                  30
Leu Phe His Pro Glu Asn Met Ile Thr Gly Lys Glu Asp Ala Ser Asn
        35                  40                  45
Asn Tyr Ala Arg Gly His Tyr Thr Val Gly Lys Glu Met Ile Asp Gln
    50                  55                  60
Val Leu Asp Lys Val Arg Arg Val Ala Asp Asn Cys Ala Gly Leu Gln
65                  70                  75                  80
Gly Phe Leu Val Phe His Ser Phe Gly Gly Gly Thr Gly Ser Gly Phe
                85                  90                  95
Gly Ala Leu Leu Met Glu Arg Leu Ser Val Asp Tyr Gly Lys Lys Ser
            100                 105                 110
Lys Leu Glu Phe Cys Val Tyr Pro Ala Pro Gln Asn Ala Thr Ser Val
        115                 120                 125
Val Glu Pro Tyr Asn Ser Ile Leu Thr Thr His Thr Thr Leu Glu His
    130                 135                 140
```

```
Ser Asp Cys Ser Phe Met Val Asp Asn Glu Ala Ile Tyr Asp Ile Cys
145                 150                 155                 160
Arg Arg Asn Leu Gly Ile Glu Arg Pro Ser Tyr Glu Asn Leu
                165                 170
```

<210> 30062
<211> 70
<212> PRT
<213> A.fumigatus

<400> 30062

```
Asp Arg Val Asp Leu Asn Lys Leu Leu Ala Tyr Val Ser Glu Glu Ile
1               5                   10                  15
Lys Thr Arg Leu Gly Ile Gln Leu Glu Glu Gln Ile Thr Ala Trp Ser
            20                  25                  30
Lys Asp Ala Lys Ser Arg Ile His Ser Ile Ser Tyr Ala Glu Leu Phe
        35                  40                  45
Ile Ala Trp Val Ser Ile Ala Ser Leu Gly Thr Pro Ala Ala Asn Gly
    50                  55                  60
Asp Thr Ala Ser Met Asn
65                  70
```

<210> 30063
<211> 111
<212> PRT
<213> A.fumigatus

<400> 30063

```
Leu Cys His Asp Asn Glu Ser Pro Arg Gly Ala Ser Lys Gln Pro Thr
1               5                   10                  15
Ser Thr Ser Ser Ser Thr Gln Thr Ala Ser Gly Ile Val Ser Val Thr
            20                  25                  30
Asp Ser Ser Leu Leu Pro Pro Arg Thr His Pro Val Leu Thr Ala Thr
        35                  40                  45
Thr Ser Ala Thr Thr Thr Thr His Arg Glu Pro Gly Cys Leu Gln Thr
    50                  55                  60
Ser Gly Pro Arg Pro Arg Arg Pro Gly Tyr Pro Cys Asp Gly Pro Arg
65                  70                  75                  80
Ala Arg Leu Gln Arg Arg Arg Cys Gln Val Gly Leu Glu Asp His Gly
                85                  90                  95
Tyr Trp Arg Gly His Arg Cys Lys Cys Arg Gly Cys Thr Ala His
            100                 105                 110
```

<210> 30064
<211> 301
<212> PRT
<213> A.fumigatus

<400> 30064

```
Thr Asp Lys Gly Ile Glu Glu Trp Thr Tyr Tyr Val Leu Thr Leu Gly
1               5                   10                  15
Pro Ser Ala Val Leu Ser Ile Gly Ser Ile Cys Ala Phe Asp Asp Ser
            20                  25                  30
Glu Ala Thr Phe Gln Thr Ala Gln Ser Ile Gly Leu Thr Lys Trp Glu
        35                  40                  45
Pro Ala Asp Ser Ser Ile Ser Arg Ser Thr Phe Leu Lys Glu Ala Val
```

```
    50                  55                  60
Ser Arg Ala Tyr Lys Val Arg Glu Gly Ser Pro Ser Leu Pro Gly Ser
65                  70                  75                  80
Arg Leu Ser Asn Ala Ser Ser Thr Ser Ser Arg Ser Ser Ala Gly Arg
                85                  90                  95
Lys Thr Thr Ser Gln Ala Ser Ser Asn Thr Ser Asp Ser Asn Gln Ile
            100                 105                 110
Asn Arg Arg Arg Gln Ala Val Phe Ala Ala Gln Leu Arg Asn Arg Arg
        115                 120                 125
Thr Gln Gln Gln Asn Asn Pro Gly Asn Pro Ile Thr Phe Ala Glu Glu
    130                 135                 140
Arg Pro Ile Ser Ser Tyr Ala Met Ile Met Ser Arg Leu Glu Gly Leu
145                 150                 155                 160
Pro Ser Asn Gln Pro Leu Pro Pro Ala Pro Pro Arg Gln Gln Val Ala
                165                 170                 175
Ser Ser Ala Ser Leu Thr Pro Arg Tyr Tyr Pro Pro Ala Pro Ile Gln
            180                 185                 190
Tyr Ser Gln Pro Leu Leu Pro Pro Pro Pro Pro Pro Thr Ala Asn Pro
        195                 200                 205
Val Ala Tyr Arg Pro Gln Val Leu Asp Pro Val Asp Gln Ala Ile His
    210                 215                 220
Val Met Val His Glu Leu Gly Phe Lys Glu Glu Asp Val Lys Trp Ala
225                 230                 235                 240
Leu Lys Ile Thr Asp Thr Gly Glu Gly Ile Asp Ala Asn Ala Ala Val
                245                 250                 255
Ala Leu Leu Thr Arg Glu Gln Glu Arg Tyr Glu Gln Arg Arg Ser Gly
            260                 265                 270
Arg Phe Ala Phe Arg Ser Lys Ser Pro Ser Leu Leu Glu Ser Val Ile
        275                 280                 285
Asn Ser Gln Glu Ser Val Asn Ser Gly Trp Arg Trp Ala
    290                 295                 300

<210> 30065
<211> 74
<212> PRT
<213> A.fumigatus

<400> 30065
Pro Gln Arg Ser Arg Ser Arg Trp Leu Val Arg Arg Ala Leu Ser Arg
1               5                   10                  15
Ser Met Gly Met Val Phe Val Thr Ala Gly Gly Lys Gln Lys Pro Glu
            20                  25                  30
Ser Phe Lys Glu Ser Val Gln Ile Leu Lys Gly Ala Thr Asp Phe Val
        35                  40                  45
Gly Lys Phe Phe Tyr Gln Ile Ser Gln His Arg Asn Tyr Gln Arg Glu
    50                  55                  60
Leu Asp Gly Leu Ala Ser Thr Ile Ala Phe
65                  70

<210> 30066
<211> 253
<212> PRT
<213> A.fumigatus

<400> 30066
Met Ser Ile Val Lys Glu Leu Ala Lys Arg Ser Trp Asp Arg Arg Glu
```

```
1               5                   10                  15
Leu Asn Ser Ser Phe Phe Phe Val Gln Leu Phe Ser Val Pro Pro Leu
            20                  25                  30
Tyr Phe Pro Ser Arg Ser Cys Pro Ala Thr Asn Ser Gln Lys Ser Phe
        35                  40                  45
Glu Leu Pro Lys Asn Gln Gln Gln Pro Leu His Lys Met Ser Phe Arg
    50                  55                  60
Lys Arg Asn Ile Gly Leu Ser Gly Thr Val Asp Arg Thr Pro Ile Ala
65                  70                  75                  80
Asn Thr Ser Ala Gln Ala Pro Gln Ala Thr Thr Thr Thr Glu Ser His
                85                  90                  95
Pro Gly Ile Arg Pro Ser Pro Asp Asp Gly Arg Pro Thr Thr Ser Thr
            100                 105                 110
Gly Thr Arg Ser Leu Asp Asn Leu Leu Ala Gly His Gly Gly Leu Pro
        115                 120                 125
Ile Gly Lys Ile Leu Leu Ile Glu Glu Asn Gly Thr Thr Asp Phe Ala
    130                 135                 140
Gly Ala Leu Leu Arg Tyr Tyr Ala Ala Glu Gly Val Val Gln Asp Gln
145                 150                 155                 160
Lys Val His Val Ile Gly Met Pro Glu Gln Trp Gly Arg Ser Leu Pro
                165                 170                 175
Gly Leu Ile Gly Pro Ala Asp Met Leu Asp Glu Lys Ser Asp Lys Lys
            180                 185                 190
Lys Ser Glu Arg Met Lys Ile Val Trp Arg Tyr Glu Arg Leu Gly Glu
        195                 200                 205
Phe Gly Ala Gly Val Ala Gly Ser Arg Gly Met His Arg Gln Gln Met
    210                 215                 220
Arg Leu Ser Ile Gln Ile Leu Leu Asp Glu Ile Val Leu Thr Lys Ser
225                 230                 235                 240
Ser Ser Cys Cys Phe Arg Arg Thr Lys Pro Asn Ser Cys
                245                 250
```

<210> 30067
<211> 239
<212> PRT
<213> A.fumigatus

<400> 30067

```
Gln Lys Val Ala Pro Ala Val Ser Gly Glu Gln Ser Pro Thr Ala Ala
1               5                   10                  15
Asp Met Asn Lys Gln Glu Ala Phe Cys His Ala Phe Asp Leu Thr Lys
            20                  25                  30
Arg Leu Thr His Pro Ser Ile Ser Asn Leu Thr Tyr Ile Pro Leu Thr
        35                  40                  45
Pro Ser Asn Glu Pro Leu Phe Ile Ser Ile Tyr Lys Arg Leu Gln Thr
    50                  55                  60
Ala Ile Ala Ser Ser His Pro Ser Thr Val His Arg Val Val Ile Pro
65                  70                  75                  80
Ser Leu Leu Asn Pro Thr Ile Tyr Pro Ser Glu Val Ser Gln Pro Asp
                85                  90                  95
His Val Leu Pro Phe Leu His Ala Leu Arg Ala Leu Met Asn Thr Gln
            100                 105                 110
Gly His Arg Ile Thr Ala Met Ile Thr Val Pro Leu Ser Leu Phe Pro
        115                 120                 125
Arg Ser Ser Gly Leu Val Arg Trp Met Glu Ile Ile Ser Asp Gly Val
    130                 135                 140
```

```
Ile Glu Leu Cys Pro Phe Pro His Ser Ala Asp Ala Leu Ala Thr Ser
145                 150                 155                 160
Gly Ala Ala Thr Ser Gln Glu Glu Pro Pro Gln Gly Met Leu Lys Thr
                165                 170                 175
His Lys Leu Pro Val Leu His Glu Arg Gly Gly Gly Ser Asp Gln Asn
            180                 185                 190
Val Gly Gln Asp Trp Ala Phe Thr Leu Ser Arg Arg Arg Phe Glu Ile
        195                 200                 205
Lys Pro Phe Ser Leu Pro Pro Ala Glu Gly Asp Lys Glu Ala Gln Asp
    210                 215                 220
Ala Ala Gly Pro Gly Gly Met Pro Lys Lys Ala Asp Leu Glu Phe
225                 230                 235

<210> 30068
<211> 61
<212> PRT
<213> A.fumigatus

<400> 30068
Phe Arg Pro His Ala Leu Cys Phe Asp Arg Gly Ile Asp Leu Ser Cys
1               5                   10                  15
Thr Thr His Leu Leu Thr Ile Cys Ala Tyr Arg Ala Val Phe Val Ser
            20                  25                  30
Phe Gly Gly Leu Leu Leu Tyr Leu Glu Gly Pro Tyr Lys Lys Leu Ala
        35                  40                  45
Pro Leu Arg Ile Asp Tyr Val Tyr Leu Leu Leu Lys Lys
    50                  55                  60

<210> 30069
<211> 125
<212> PRT
<213> A.fumigatus

<400> 30069
Gln Phe Leu Val Lys Ser Leu Ser Asn Arg Ser Val Ala Asn Met Ser
1               5                   10                  15
Asp Pro Leu Leu Phe Asp Asp Thr Phe Thr Ile Thr Ala Ile Asn Ser
            20                  25                  30
Gln Lys Tyr Asp Arg Val Ser Arg Leu Ser Cys Thr Ser Ser Asp Ser
        35                  40                  45
Val Thr Thr Phe Thr Leu Asp Ile Asn Ser Glu Leu Tyr Pro Cys Ala
    50                  55                  60
Val Gly Glu Ser Val Ser Met Ala Leu Ala Ser Thr Leu Ser Leu Asp
65                  70                  75                  80
Gly Lys Glu Ala Thr Gly Ala Lys Ala Ser Trp Arg Glu Val Gly Ala
                85                  90                  95
Gly Glu Gln Thr Leu Ala Asn Asp Tyr Asp Tyr Val Cys His Gly Lys
            100                 105                 110
Val Tyr Arg Phe Glu Glu Ala Ala Thr Gln Gly Asn Met
        115                 120                 125

<210> 30070
<211> 546
<212> PRT
<213> A.fumigatus
```

<400> 30070

```
Gly Val Ala Glu Lys Gln Lys Val Gly Ser Ile His Asp Ser Arg Ser
1               5                  10                  15
Met Ser Ser Asp His Arg Gln Val Asp Ser Ala His Asn Ser Gly Ser
            20                  25                  30
Val Pro Asp Thr Phe Gly Ala Asp Ser Gly Ser Thr Leu Met Ala Ala
        35                  40                  45
Pro Thr Val Ala Ser Pro Gly Pro Ile Glu Asp Ser Thr Ser Gln Asp
    50                  55                  60
Gly Asp Arg Pro Arg His Arg Asp Asp Ala Asp Met Gln Glu Ser Ser
65                  70                  75                  80
Asn Lys Ala Phe Ser Tyr Pro Met Pro Thr Gly His Leu Gly Asp Ala
                85                  90                  95
Arg Arg Gly Leu Ser Leu Pro Asn Ser Gly Phe Gln Lys Ser Gly Gln
            100                 105                 110
Arg Ser Pro Ser Ala Lys Lys His Arg Cys Pro Tyr Cys Ala Thr Glu
        115                 120                 125
Phe Thr Arg His His Asn Leu Lys Ser His Leu Leu Thr His Ser Gln
    130                 135                 140
Glu Lys Pro Tyr Val Cys Gln Thr Cys Gln Ser Arg Phe Arg Arg Leu
145                 150                 155                 160
His Asp Leu Lys Arg His Thr Lys Leu His Thr Gly Glu Arg Pro His
                165                 170                 175
Ile Cys Pro Lys Cys Gly Arg Arg Phe Ala Arg Gly Asp Ala Leu Ala
            180                 185                 190
Arg His Asn Lys Gly Gln Gly Gly Cys Ala Gly Arg Arg Ala Ser Met
        195                 200                 205
Gly Ser Phe Ala Pro Glu Asp Asp Tyr Gly Glu Gly Ala Val Ala Pro
    210                 215                 220
Ser Ala Glu Asn Thr Met Asp Gly Leu Val Tyr Ala Glu Pro Glu Arg
225                 230                 235                 240
Met Asp Glu Glu Asp Glu Arg Arg Leu Asn Met Pro Ser Ile Lys Lys
                245                 250                 255
His Asp Ala Pro Ser Asp Ser Ile Pro Arg Ser His Ser Gly Ser Ser
            260                 265                 270
Tyr Gln Pro Arg Gln Pro Asn Thr Tyr Pro Pro Ile Ala Ala Gly Arg
        275                 280                 285
Pro Ser Pro Gly Gly Leu Phe Pro Pro Pro Thr Ser His Gly Gly Ser
    290                 295                 300
Ser Ala Ser Thr Ser Pro Val Ser Gln Ser Gly Asn Met Thr Phe Pro
305                 310                 315                 320
Pro Pro Gly Gln Pro Ser Gly Ala Thr Val Tyr Gln Ser Thr Asn Val
                325                 330                 335
Thr Glu Ser Pro Arg Pro Leu Ser Pro Asn Ala Leu Thr Ser His Gln
            340                 345                 350
Gly Gly His Gly Pro Glu Gly Gly Ser Ile Gln Leu His Arg Ser His
        355                 360                 365
Ser Pro Ser Met Ser Gln Pro Phe Gln Gln Gln Pro Phe Ser Arg Ser
    370                 375                 380
Gly Pro Ser Gln Gly Pro Val Thr Asn His Ser Ala Pro Gly Leu Gly
385                 390                 395                 400
Leu Pro Pro Ser Gln Pro Gly Ala Pro Gln Leu Pro Pro Pro Pro Gly
                405                 410                 415
Leu Gly Pro Ser Asp Thr Arg Phe Ser Leu His Asn Pro Gly Ser Val
            420                 425                 430
Gln Pro Pro Gln Gln Ala Ala Thr Lys His Gly Ser Ser Leu Gly His
```

```
        435                 440                 445
Ser Thr Asn His Ser Gly Ser Leu Ser Ser Lys Ala Gly Leu Asp Ala
    450                 455                 460
Thr Ala Gly Asn Gly Thr His Leu Pro Gly Pro His Asp Pro Ser Phe
465                 470                 475                 480
Val Glu Gln Ser Arg Asp Arg Glu Asp Lys Leu Trp Ala Tyr Ile Arg
                485                 490                 495
Ser Val His Glu Glu Leu Ala Gly Leu Lys Ser Glu Val Ala Ala Leu
            500                 505                 510
Arg Ser Gln Leu Ala Ser Ser Asn Ala Ser Asn Leu Ala Pro Thr Asn
        515                 520                 525
Thr Ser Ala Ala Ser Ala Gln Pro Glu Ser Ser Ser Gly Ser Thr Ala
    530                 535                 540
Gln Arg
545
```

<210> 30071
<211> 76
<212> PRT
<213> A.fumigatus

<400> 30071

```
Asn Thr Met Arg Asn Pro Ile Ile Ala Tyr Pro Glu Ser Tyr His Ile
1               5                   10                  15
Ala Arg Gly Leu Asn Tyr Gly Val Cys Ser Leu Leu Asn Gly Tyr Ser
            20                  25                  30
Lys Gly Ser Ala Lys Arg Trp Ala Thr Tyr Pro Thr Ala Lys Pro Asp
        35                  40                  45
Gly Ser Thr Gln Ser Leu Glu Asp Ser Asn Tyr Ile Thr Ala Gln Ser
    50                  55                  60
Ser Ser Gly Lys Arg His Thr Leu Val Arg Ser Gln
65                  70                  75
```

<210> 30072
<211> 187
<212> PRT
<213> A.fumigatus

<400> 30072

```
Val Ser Gly Leu Thr Arg Ser Val Gly Ile Gly Arg Gly Leu Ala Ala
1               5                   10                  15
His Tyr Leu Ala Gln Pro Gly Thr Thr Val Ile Gly Thr Val Arg Asp
            20                  25                  30
Asn Ser Ser Glu Lys Ala Lys Asp Leu Ser Lys Leu Pro Lys Gly Arg
        35                  40                  45
Gly Cys Asp Leu Ile Ile Val Pro Leu Ser Val Asp Asn Pro Ser Arg
    50                  55                  60
Val Ala Glu Ala Ala Ser Glu Ile Gln Thr Arg His His Ile Glu His
65                  70                  75                  80
Ile Asp Val Val Ile Ala Asn Ala Gly Ile Cys Asn His Trp Gly Pro
                85                  90                  95
Ile Gln Glu Met Thr Asp Leu Asp Val Leu Ser His Phe Ala Val Asn
            100                 105                 110
Thr Leu Gly Pro Leu Arg Leu Phe Thr Ala Met Ala Pro Leu Leu Gln
        115                 120                 125
Arg Ala Ser Thr Pro Lys Phe Val Tyr Ile Ser Thr Leu Leu Ala Ser
```

```
    130                 135                 140
Ile His Ala Ile Glu Gln Met Pro Ser Leu Thr Ala Ala Tyr Gly Met
145                 150                 155                 160
Ser Lys Val Ala Gly Asn Tyr Leu Val Lys Lys Ile Asp Ala Glu Asn
                165                 170                 175
Lys His Leu Ile Thr Leu Ser Ile Asp Pro Gly
            180                 185

<210> 30073
<211> 109
<212> PRT
<213> A.fumigatus

<400> 30073
Arg Ile Arg Ala Gly Ser Cys Pro Glu Arg Arg Gly Leu Thr Val Asp
1               5                   10                  15
Gly Phe Ser Glu Thr Lys Asp Arg Ile Cys Val Asn Val Ala Ser Glu
            20                  25                  30
Ala Gln Asn Arg Val Ala Val Asp Thr Ser Val Phe Lys Val Asp Pro
        35                  40                  45
Ser Thr Ser Val Leu Ala His Asn Asn Leu Gln Phe Val Val Pro Pro
    50                  55                  60
Val Gly Thr Gly Thr Asn Leu Asp Thr Ser Asp Asp Leu Ala Arg Thr
65                  70                  75                  80
Thr Glu His Val Gly Ala Lys Leu Arg Arg Ile Phe Arg Phe Cys Val
                85                  90                  95
Val Gln Thr Glu Asp Lys Gln Cys Cys Val Asp Asn Val
            100                 105

<210> 30074
<211> 85
<212> PRT
<213> A.fumigatus

<400> 30074
Tyr Ile Ser Gln Thr Arg Pro Tyr Phe Pro Ile Leu Gly Ala Glu Asn
1               5                   10                  15
Thr Lys Gly Thr Leu Cys Gly Leu Leu Tyr Trp Gly Leu Phe Gly Ile
            20                  25                  30
Ala Asn Tyr His Leu Gln Ile Asp Gly Asp Ile Leu Leu Ala His Asp
        35                  40                  45
Gln Val Val Val Ile Val Lys Asn Ile Lys Pro Val Glu Leu Thr Pro
    50                  55                  60
Ala Gln Asn His Asp Val Leu Cys Val Arg Val Leu Ala Asp Asp Thr
65                  70                  75                  80
Pro Ile Val Arg Gly
                85

<210> 30075
<211> 154
<212> PRT
<213> A.fumigatus

<400> 30075
Thr Ser Leu Ala Lys Arg Arg Thr Val Trp Pro Ser Thr Pro Val Cys
1               5                   10                  15
```

```
Ser Lys Leu Ile Pro Ala Leu Pro Phe Leu His Thr Ile Ile Cys Ser
            20                  25                  30
Leu Ser Tyr His Arg Leu Val Gln Val Pro Thr Trp Thr Pro Leu Thr
        35                  40                  45
Thr Ser Leu Val Pro Gln Ser Met Leu Ala Gln Ser Cys Asp Val Phe
    50                  55                  60
Ser Gly Ser Val Ser Ser Arg Gln Arg Thr Asn Asn Ala Val Ser Thr
65                  70                  75                  80
Met Phe Arg His Ser Glu Leu Leu Asp Pro Ser Ser Leu Val Ser Ile
                85                  90                  95
Ser Leu Arg Pro Asp His Thr Phe Arg Phe Ser Val Leu Arg Thr Pro
            100                 105                 110
Arg Ala Pro Phe Ala Ala Ser Cys Thr Gly Val Cys Ser Ala Ser Pro
        115                 120                 125
Ile Ile Thr Cys Arg Leu Thr Ala Ile Ser Phe Ser Leu Met Ile Lys
    130                 135                 140
Ser Leu Leu Ser Ser Arg Thr Ser Asn Gln
145                 150
```

<210> 30076
<211> 147
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (9),(26)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30076

```
Pro Gly Phe Asn Pro Gly Leu Met Xaa Arg Val Met Pro Pro Asn Pro
1               5                   10                  15
Asn Ser Trp Thr Ala Gly Ser Ala Arg Xaa Arg Ser Gly Glu Lys Lys
            20                  25                  30
Gly Leu Thr Phe Ala Asn Gln Asp Ser Leu Pro Lys Leu Pro Ile Pro
        35                  40                  45
Asp Leu Glu Ser Thr Cys Lys Lys Tyr Leu Glu Ala Leu Ser Ala Leu
    50                  55                  60
Gln Thr Pro Arg Glu Gln Glu Glu Thr Lys Ala Ala Val Gln Glu Phe
65                  70                  75                  80
Leu Lys Thr Asp Gly Pro Ile Leu Gln Glu Lys Leu Lys Asn Tyr Ala
                85                  90                  95
Ser Ser Lys Thr Ser Tyr Ile Glu Gln Phe Cys Met Tyr Ser Leu Lys
            100                 105                 110
His Val Ala Cys Asn Cys Ser Asn Ile Gln His Ile Gly Tyr Asp Ser
        115                 120                 125
Tyr Leu Asn Tyr Asp Asn Arg Lys Asp Phe Ser Met Leu Leu Thr Ala
    130                 135                 140
Leu Asp Arg
145
```

<210> 30077
<211> 561
<212> PRT
<213> A.fumigatus

<400> 30077

```
Ala Asp Leu Val Thr Ala Val Val Leu Asn Leu Asn Pro Phe Phe Leu
1               5                  10                  15
Leu Glu Asp Asp Pro Thr Pro Ala Arg Asn Asn Gln Val Thr Arg Ala
            20                  25                  30
Ala Ser Leu Val Val Ser Ala Leu Ser Phe Val Arg Ala Val Arg Arg
        35                  40                  45
Glu Glu Leu Pro Pro Asp Thr Val Arg Gly Thr Pro Leu Cys Met Tyr
    50                  55                  60
Gln Tyr Ser Arg Leu Phe Gly Thr Ala Arg Leu Pro Thr Asp Asn Gly
65                  70                  75                  80
Cys Ile Ile Ser Gln Asp Pro His Ala Lys His Ile Val Val Leu Cys
                85                  90                  95
Arg Gly Gln Phe Tyr Trp Phe Asp Val Leu Asp Asp Asn Asn Asp Leu
            100                 105                 110
Ile Met Ser Glu Lys Asp Ile Ala Val Asn Leu Gln Val Ile Ile Gly
        115                 120                 125
Asp Ala Glu Gln Thr Pro Val Gln Glu Ala Ala Lys Gly Ala Leu Gly
    130                 135                 140
Val Leu Ser Thr Glu Asn Arg Lys Val Trp Ser Gly Leu Arg Asp Ile
145                 150                 155                 160
Leu Thr Lys Asp Glu Gly Ser Asn Asn Ser Glu Cys Leu Asn Ile Val
                165                 170                 175
Asp Thr Ala Leu Phe Val Leu Cys Leu Asp Asp Thr Glu Pro Glu Asn
            180                 185                 190
Thr Ser Gln Leu Cys Ala Asn Met Leu Cys Gly Thr Ser Glu Val Val
        195                 200                 205
Arg Gly Val Gln Val Gly Thr Cys Thr Asn Arg Trp Tyr Asp Lys Leu
    210                 215                 220
Gln Ile Ile Val Cys Lys Asn Gly Ser Ala Gly Ile Asn Phe Glu His
225                 230                 235                 240
Thr Gly Val Asp Gly His Thr Val Leu Arg Phe Ala Ser Asp Val Tyr
                245                 250                 255
Thr Asp Thr Ile Leu Arg Phe Ala Lys Thr Ile Asn Gly Gln Ala Pro
            260                 265                 270
Ser Leu Trp Ala Thr Ala Ser Pro Asp Pro Ser Lys Arg Asp Pro Lys
        275                 280                 285
Ser Phe Gly Asn Val Ser Thr Thr Pro Arg Lys Leu Glu Trp Asp Met
    290                 295                 300
Val Pro Glu Leu Ser Ile Ala Leu Arg Phe Ala Glu Ser His Leu Ala
305                 310                 315                 320
Asp Leu Leu Gln Gln His Glu Phe Ala Val Leu Asp Phe Glu Gly Tyr
                325                 330                 335
Gly Lys Asn Phe Ile Thr Ser Met Gly Phe Ser Pro Asp Ala Phe Val
            340                 345                 350
Gln Met Ala Phe Gln Ala Ala Tyr Tyr Gly Leu Tyr Gly Arg Val Glu
        355                 360                 365
Asn Thr Tyr Glu Pro Ala Met Thr Lys Phe Phe Leu His Gly Arg Thr
    370                 375                 380
Glu Ala Ile Arg Thr Val Thr Asn Glu Cys Val Asp Phe Val Lys Thr
385                 390                 395                 400
Phe Trp Gly Asp Asn Pro Ala Glu Gln Lys Val Asn Ala Leu Arg Lys
                405                 410                 415
Ala Thr Glu Lys His Thr Ala Ile Thr Lys Glu Cys Ser Lys Gly Arg
            420                 425                 430
Gly Gln Asp Arg His Leu Tyr Ala Leu Tyr Cys Leu Trp Gln Arg Ser
```

```
        435                 440                 445
Phe Asp Glu Asp Ser Pro Ser Ala Gly Asn Ser Val Glu Asn Gly Ser
    450                 455                 460
Asn Gly Tyr Ser Ser Pro Val Glu Lys Arg Ile Ala Ile Gly Ser Pro
465                 470                 475                 480
Lys Thr Ser Ser Ser Met Ser Glu Asp Gly Leu Ser Ser Asn Gly Tyr
                485                 490                 495
Ser Tyr Arg Gly Ile Arg Thr Leu Gln Pro Asn Ser Gly Ile Phe Ser
            500                 505                 510
Asp Pro Gly Trp Asp Lys Ile Lys Thr Arg Ser Gly Gln His Pro Thr
        515                 520                 525
Ala Gly Thr Arg Val Glu Ala Phe Arg Phe Arg Pro Thr Ser Glu Lys
    530                 535                 540
Asp Leu Gly Ser Leu His Tyr Pro Arg Thr Thr Ile Leu Asn Cys Ala
545                 550                 555                 560
Leu
```

<210> 30078
<211> 175
<212> PRT
<213> A.fumigatus

<400> 30078

```
Asp Asp Arg Gln Leu Gly Ser Phe Gln Pro Arg Gly Glu Asp Ser Asp
1               5                   10                  15
Glu His Pro Gln Ile Ser Ser Ala Asn Ile Lys Arg Gly Asp Thr Gln
            20                  25                  30
Leu Ala Ile Phe Lys Val Lys Gly Lys Tyr Tyr Ala Thr Gln Gln Met
        35                  40                  45
Cys Pro His Lys Arg Ala Phe Val Leu Ser Asp Gly Leu Ile Gly Asp
    50                  55                  60
Asp Asp Ala Gly Lys Tyr Trp Val Ser Cys Pro Tyr His Lys Arg Asn
65                  70                  75                  80
Phe Glu Leu Asn Gly Glu Gln Ala Gly Arg Cys Thr Asn Asp Glu Ser
                85                  90                  95
Met Asn Ile Ala Thr Phe Pro Val Glu Glu Arg Asp Asp Gly Trp Val
            100                 105                 110
Tyr Met Lys Leu Pro Pro Val Glu Glu Leu Asp Ser Val Leu Gly Thr
        115                 120                 125
Glu Lys Trp Lys Val Arg Lys Gly Glu Ala Pro Asp Pro Phe Gln Lys
    130                 135                 140
Val Asp Lys Arg Tyr Lys Gly Met Arg Gly Lys Lys Ala Cys Asp Ile
145                 150                 155                 160
Ser Thr Lys Ala Pro Thr Thr Gln Ala Ala Asn Ile Ile Asp Trp
                165                 170                 175
```

<210> 30079
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30079

```
Thr Leu Gly Phe Ser Cys Ala Trp Ser Ile Phe Ala Val Asn Trp Ser
1               5                   10                  15
Val Arg Ser Phe Tyr Ile Thr Pro Pro Met Gly Leu Ile Leu Leu Gln
```

```
            20                  25                  30
Leu Cys Asn Leu Val Ser Val Leu Ile Phe Ser Ile Lys Ser Val His
        35                  40                  45
Tyr Leu Ser Lys Val Phe Asp Ala Thr Arg Leu Val His Pro
    50                  55                  60

<210> 30080
<211> 109
<212> PRT
<213> A.fumigatus

<400> 30080
Asn Phe Ser Met Ile Phe Ser Phe Pro Arg Ile Phe Cys Trp Met Ala
1               5                   10                  15
Leu Asp Cys Lys Gln Pro Ser Phe Ser Arg Leu Ser Gln Val His Thr
            20                  25                  30
Gly Ser Pro Arg Asn Ser Asp Ile Ala Asp Gln Val Trp Val Trp Glu
        35                  40                  45
Asn Glu Asp Gly Ser Thr Phe Tyr Phe Asp Ile Gly Glu Ile Val Arg
    50                  55                  60
Phe Arg Val Glu Met Glu Glu Trp His Asp Gln Ile Pro Asn Ala Pro
65                  70                  75                  80
Asp Leu Gly Asp Gly Thr Thr Ile Glu Arg Lys Pro Pro Tyr Ser Ile
                85                  90                  95
Ile Val Cys Gly His Ala Phe Arg Phe Gln Thr Glu Arg
            100                 105

<210> 30081
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30081
Phe Asp Val Val Lys Arg Gln Arg Val Val Ser Leu Ala Thr Gln Leu
1               5                   10                  15
Ala Val Cys Tyr Ile Gln Val Ser Asn Ser Asn Cys Leu Cys Lys Arg
            20                  25                  30
Lys Ala Leu His Ser Pro Lys Ser Leu Leu Thr Ser Arg Ile Met His
        35                  40                  45
Met Gln Asn Lys Ser Ala Ser Gln Val Phe Asn Gln Cys Leu Leu Ser
    50                  55                  60
Ala Lys Ala Pro Ile Pro Lys Ser
65                  70

<210> 30082
<211> 214
<212> PRT
<213> A.fumigatus

<400> 30082
His Lys Ser Ser Val Asn Glu Ile Phe Asn Pro Glu Arg Val Asp Lys
1               5                   10                  15
Phe Tyr Ser Gln Ser Ala Ala Glu Arg Gln Arg Ser Leu Leu Ala Asp
            20                  25                  30
Lys Ala Thr Asn Tyr Ser Val Val Arg Leu Glu Leu Ile Glu Glu Ile
        35                  40                  45
```

```
Tyr Asn Asp Met Tyr Leu Gln Arg Val Lys Asn Pro Asp Glu Thr Gln
    50                  55                  60
Trp Gln His Arg Ile Leu Pro Glu Arg Lys Ile Thr Arg Val Glu His
65                  70                  75                  80
His Gly Pro Gln Ser Arg Met Arg Ile His Leu Lys Ser Ser Lys Pro
                85                  90                  95
Glu Ser Glu Gly Ala Ala Asn Asp Val Lys Glu Thr Leu Glu Val Asp
            100                 105                 110
Ala Leu Met Val Ala Thr Gly Tyr Asn Arg Asn Ala His Glu Arg Leu
        115                 120                 125
Leu Ser Lys Val Gln His Leu Arg Pro Thr Gly Gln Asp Gln Trp Lys
    130                 135                 140
Pro His Arg Asp Tyr Arg Val Glu Met Asp Pro Ser Lys Val Ser Ser
145                 150                 155                 160
Glu Ala Gly Ile Trp Leu Gln Gly Cys Asn Glu Arg Thr His Gly Leu
                165                 170                 175
Ser Asp Ser Leu Leu Ser Val Leu Ala Val Arg Gly Gly Glu Met Val
            180                 185                 190
Gln Ser Ile Phe Gly Glu Gln Leu Glu Arg Ala Ala Val Gln Gly His
        195                 200                 205
Gln Leu Arg Ala Met Leu
    210

<210> 30083
<211> 356
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (6),(352)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30083
Met Val Val Asn Val Xaa His Gly Ala Pro Leu Ala Gly Thr Val Gln
1               5                   10                  15
Arg His Leu Met Trp Lys Val Asp Arg Leu Val Val Leu Ala Ser Thr
            20                  25                  30
Ser Gly Met Phe Cys Val Leu Leu Pro Arg Thr Ala Arg Gly Ser Val
        35                  40                  45
Gly Phe Ala Asn Gly Arg Val Cys Ser Cys Val Pro Asn Lys Met Thr
    50                  55                  60
Trp Asn Phe Ala Ser Ile Asn Glu Ala Leu His Val Gly Glu His Tyr
65                  70                  75                  80
Gly Tyr Asp Ile Pro Lys Asp Val Lys Ile Asn Tyr Arg Gln Phe Lys
                85                  90                  95
Glu Thr Arg Asp Ala Val Val Lys Arg Leu Asn Gly Ala Tyr Glu Arg
            100                 105                 110
Asn Trp Gly Lys Glu Gly Ile Asp Leu Val His Gly Arg Ala Arg Phe
        115                 120                 125
Val Glu Pro Lys Val Ile Glu Val Thr Leu Asn Asp Gly Ala Lys Ala
    130                 135                 140
Arg Tyr Ser Ala Pro His Ile Leu Ile Ala Thr Gly Gly Arg Pro Ser
145                 150                 155                 160
Ile Pro Pro Val Lys Gly Ala Glu His Gly Ile Thr Ser Asp Gly Phe
                165                 170                 175
```

```
Phe Glu Ile Glu Glu Leu Pro Pro Lys Val Ala Val Val Gly Ala Gly
            180                 185                 190
Tyr Ile Ala Val Glu Leu Ala Gly Val Met Ala Ala Val Gly Val Glu
        195                 200                 205
Thr His Met Phe Ile Arg Gly Glu Thr Met Leu Arg Lys Phe Asp Pro
    210                 215                 220
Met Ile Gln Lys Thr Met Thr Glu Arg Tyr Glu Ala Thr Gly Val His
225                 230                 235                 240
Ile His Lys Lys His Gly Gly Phe Lys Glu Val Gln Leu Val Lys Asp
                245                 250                 255
Gly Lys Gly Lys Asp Lys Val Leu Lys Leu Ile Gly Asn Asp Gly Ser
            260                 265                 270
Glu Glu Glu Phe Asn Glu Leu Leu Trp Ala Ile Gly Arg Gln Pro Glu
        275                 280                 285
Val Glu Asp Leu His Leu Glu Ile Pro Gly Val Lys Leu Asn Glu Ser
    290                 295                 300
Gly His Val Val Val Asp Gln Tyr Gln Asn Thr Ser Ala Glu Gly Val
305                 310                 315                 320
Tyr Ala Leu Gly Asp Val Thr Gly Val Ala Glu Leu Thr Pro Gly Thr
                325                 330                 335
Leu Phe Ser Ser Ser Pro Arg Gly Trp Lys Asp Arg Arg Gly Val Xaa
            340                 345                 350
Asp Leu Cys Ala
        355
```

Substitute Sheet (Rule 26)

<210> 30084
<211> 305
<212> PRT
<213> A.fumigatus

<400> 30084

```
Arg Thr Trp Gly Gln Phe Arg Asn Ala Ser Asp Ile Thr Glu Ser Ile
1               5                   10                  15
Asn Thr Leu Arg Arg Gly Val Leu Val Leu Val Asp Asn Asp Val Ala
            20                  25                  30
Thr Phe Val Glu Leu His Ala Gly Asp Leu Glu Met Gln Ile Leu Asp
        35                  40                  45
Leu Arg Leu Thr Ala Asp Ser Pro Gln Gln Leu Val Glu Phe Leu Leu
    50                  55                  60
Arg Pro Val Ile Ala Asp Gln Leu Glu His Leu Val Leu Ala Leu Ala
65                  70                  75                  80
Val Leu His Gln Leu His Leu Leu Glu Pro Ala Met Leu Leu Val Asn
                85                  90                  95
Val His Ala Gly Arg Leu Val Pro Leu Arg His Arg Leu Leu Asn His
            100                 105                 110
Arg Val Glu Leu Ala Gln His Arg Leu Thr Pro Asn Glu His Val Arg
        115                 120                 125
Leu His Ala Asp Gly Ser His Asp Thr Ser Gln Leu Asp Gly Asn Val
    130                 135                 140
Thr Gly Thr His Asp Ser Asn Leu Gly Arg Glu Leu Leu Asp Leu Lys
145                 150                 155                 160
Glu Pro Val Ala Ser Asp Thr Met Leu Gly Thr Leu Asp Arg Arg Asn
                165                 170                 175
Thr Gly Pro Ala Thr Gly Arg Asp Glu Asn Val Arg Arg Arg Val Pro
            180                 185                 190
Arg Leu Cys Ala Val Ile Glu Arg Asn Leu Asp Asp Leu Gly Phe Asp
```

```
        195                 200                 205
Glu Pro Ser Ala Thr Val His Glu Val Asp Ala Phe Leu Ala Pro Val
    210                 215                 220
Ser Leu Val Gly Thr Val Gln Thr Phe Asp Asp Gly Val Ala Gly Phe
225                 230                 235                 240
Leu Glu Leu Thr Val Val Asp Leu Asp Val Leu Gly Asp Val Val Ala
                245                 250                 255
Val Val Leu Ala Asp Val Glu Ser Phe Val Asp Gly Ser Glu Ile Pro
            260                 265                 270
Gly His Leu Val Gly Asp Thr Ala Ala Asn Pro Pro Val Ser Lys Ser
        275                 280                 285
His Ala Ser Pro Gly Arg Thr Trp Glu Gln Asp Thr Glu His Thr Arg
    290                 295                 300
Arg
305
```

<210> 30085
<211> 741
<212> PRT
<213> A.fumigatus

<400> 30085

```
Arg His Glu Arg Cys Asp Phe Ser Thr Ile His Gly Leu Arg His Phe
1               5                   10                  15
His His Ser Leu Pro Gly Tyr Cys Pro Thr Pro Leu Val Ser Leu Pro
            20                  25                  30
Glu Ile Ala Thr Glu Leu Gly Val Lys Ala Val Phe Val Lys Asp Glu
        35                  40                  45
Ser Asp Arg Phe Gly Leu Pro Ser Phe Lys Val Leu Gly Ala Ser Trp
    50                  55                  60
Gly Cys Tyr Arg Ser Val Val Ser His Leu Gly Leu Ser Pro Thr Val
65                  70                  75                  80
Ala Leu Asp Asp Val Asn Gln Arg Leu Lys Glu Ser Pro Val Thr Leu
                85                  90                  95
Phe Ala Ala Thr Glu Gly Asn His Gly Arg Ala Val Ala Phe Met Ala
            100                 105                 110
Arg Gln Phe Gly Val Thr Ala Arg Ile Phe Val Pro Ala Ser Met Asp
        115                 120                 125
Glu Glu Thr Arg Asn Arg Ile Ala Ser Glu Gly Ala Glu Val Ala Ile
    130                 135                 140
Ser Asp Gly Asp Tyr Asn Leu Ala Val Gln Glu Ala Trp Ile Ala Ser
145                 150                 155                 160
Gln Asn Asp Gly Gly Leu Leu Val Gln Asp Thr Ala Phe Asp Gly Tyr
                165                 170                 175
Glu Glu Val Pro Ala Trp Ile Val Glu Gly Tyr Ser Thr Met Met Thr
            180                 185                 190
Glu Ile Asp Glu Gln Leu Ser Gln Leu Gly Leu Gln Ser Thr Leu Thr
        195                 200                 205
Val Thr Pro Val Gly Val Gly Ser Leu Gly His Ala Val Val Arg His
    210                 215                 220
Cys Lys Ser Arg Thr Thr Pro Ile Ala Val Val Ala Val Glu Pro Asp
225                 230                 235                 240
Ser Gly Pro Cys Leu Ile Ser Ser Leu Glu Ala Gly Thr Met Val Ser
                245                 250                 255
Val Thr Ser Ser Glu Thr Ile Met Asn Gly Met Asn Cys Gly Thr Val
            260                 265                 270
```

```
Ser Ala Thr Ala Trp Pro Asp Leu Gln Arg Ala Val Asp Ala Ala Val
        275                 280                 285
Thr Val Ser Ser Tyr Glu Ser His Cys Ala Val Gln Tyr Leu Ala Ser
    290                 295                 300
His Ser Val Arg Ala Gly Pro Cys Gly Gly Ala Ser Leu Ala Ala Ile
305                 310                 315                 320
Arg Arg Leu Arg Ala Ser Gly Gln Ala Ala Ser Leu Leu His Arg Asp
                325                 330                 335
Ala Val Val Val Leu Leu Cys Thr Glu Gly Ala Arg Pro Tyr Pro Ile
            340                 345                 350
Pro Arg Asp Val Ala Val Glu Asp Val Val Gly Leu Thr Gln Val Leu
        355                 360                 365
Thr Gln Ile Asp Ser Ser Asn Pro Thr Leu Ser Val Ala Asp Gly Val
    370                 375                 380
Gly Glu Thr Glu Ile Ala Asn Tyr Leu Ala Ala Trp Leu Ala His Arg
385                 390                 395                 400
Gly Ile Glu Tyr His Arg Val Glu Pro Val Ala Gly Arg Pro Ser Ile
                405                 410                 415
Val Gly Val Phe Arg Gly Ser Gly Gly Gly Gln Ser Leu Met Phe Asn
            420                 425                 430
Gly His Ile Asp Thr Val Ser Leu Ser Ser Tyr Glu Ser Asp Pro Leu
        435                 440                 445
Ser Gly His Leu Gly Glu Lys Glu Gly Arg Gln Val Ile Phe Gly Arg
    450                 455                 460
Gly Ser Leu Asp Met Lys Gly Gly Leu Ala Ala Ala Leu Ala Ala Leu
465                 470                 475                 480
Ala Ala Ile Lys Ala Ser Gly Arg Thr Leu Arg Gly Asp Val Ile Val
                485                 490                 495
Ala Ala Val Ser Asp Glu Glu Asp Ala Ser Gln Gly Thr Arg Asp Ile
            500                 505                 510
Ile Ala Ala Gly Trp Arg Ala Asp Ala Ala Val Val Pro Glu Pro Thr
        515                 520                 525
Met Gly Ala Ile Ala Ile Ala His Lys Gly Phe Val Trp Val Glu Val
    530                 535                 540
Asp Ile Leu Gly Val Ala Ala His Gly Ser Asp Ser Gln Ala Gly Val
545                 550                 555                 560
Asp Ala Ile Leu Gln Ala Gly Trp Phe Leu Gln Ser Leu Glu Gln Tyr
                565                 570                 575
Gln Lys Arg Leu Pro Ile Asp Asp Thr Leu Gly Gln Ala Thr Leu His
            580                 585                 590
Cys Gly Leu Ile Lys Gly Gly Gln Glu Pro Ser Ser Tyr Pro Gln Arg
        595                 600                 605
Cys Thr Ile Thr Ile Glu Phe Arg Thr Ile Pro Ala Gln Ser Asn Glu
    610                 615                 620
Ser Ile Leu Glu Asp Val Asn Ala Leu Leu Ser Gly Ile Ala Lys Glu
625                 630                 635                 640
Lys Pro Arg Phe Arg Tyr Ala Pro Pro Arg Leu Thr Ile Ser Arg Pro
                645                 650                 655
Thr Gln Lys Leu Ser Ala Asp His Pro Leu Val Gln Thr Ala Val Ala
            660                 665                 670
Cys Ala Thr Glu Val Leu Val Asp Gly Pro Gly Val Ile Ser Val Pro
        675                 680                 685
Phe Trp Cys Asp Ala Ala Leu Leu Ser Glu Ala Gly Val Pro Ala Ile
    690                 695                 700
Val Tyr Gly Pro Ser Gly Ala Gly Leu His Ser Lys Glu Glu Trp Val
705                 710                 715                 720
```

Glu Val Asp Ser Leu Gln Glu Met Ser Arg Val Phe Glu Lys Leu Ile
725 730 735
Gln Glu Leu Cys Ala
740

<210> 30086
<211> 118
<212> PRT
<213> A.fumigatus

<400> 30086
Ile Arg Asp Pro Arg Gly Glu Asp Glu Phe Gly Thr Lys Gly Asp Ala
1 5 10 15
Asn Thr Phe Ile Gly Thr Ser Tyr Tyr Met Ala Pro Glu Arg Ile Thr
20 25 30
Gly Gln Ser Tyr Thr Ile Thr Ser Asp Val Trp Ser Leu Gly Val Thr
35 40 45
Leu Leu Glu Val Ala Gln His Arg Phe Pro Phe Pro Ala Asp Gly Thr
50 55 60
Glu Met Gln Pro Arg Ala Gly Leu Ile Asp Leu Leu Thr Tyr Ile Val
65 70 75 80
Arg Gln Pro Ile Pro Lys Leu Lys Asp Glu Pro Glu Asn Arg Ile Arg
85 90 95
Trp Ser Asp Asn Phe Lys Tyr Phe Ile Glu Cys Trp Tyr Val Tyr Ser
100 105 110
Ala Met Asp Glu Trp Gly
115

<210> 30087
<211> 96
<212> PRT
<213> A.fumigatus

<400> 30087
Pro Cys Asp Cys Leu Glu Cys Tyr Arg Pro Arg Val Leu Arg Phe Tyr
1 5 10 15
His Val Ile Cys Arg Gln Gly Ser Ala Gly Ala Trp Cys Gln His Pro
20 25 30
Ser Ala Ser Gln Val Cys Ile Cys Arg Arg Cys Ala Asp Gly Lys Ser
35 40 45
Pro Ile Leu Trp Ser Gln Phe Met Lys Leu His Gln Ala Pro Thr Glu
50 55 60
Ser Tyr Ala Asp Ile Gly Gly Pro Glu Ser Gln Ile Gln Glu Ile Glu
65 70 75 80
Glu Ser Val Glu Leu Ala Leu Ala Pro Pro Arg Asn Cys Met Lys Arg
85 90 95

<210> 30088
<211> 179
<212> PRT
<213> A.fumigatus

<400> 30088
Gln Ser Leu Cys Leu Gln Lys Glu Lys Pro Lys Tyr Glu Pro Pro Pro
1 5 10 15
Pro Pro Thr Thr Arg Ile Gly Arg Lys Lys Arg Lys Ala Ala Gly Pro

```
            20                  25                  30
Ser Ala Ala Ser Lys Leu Pro Asp Ile Phe Pro Thr Ser Arg Cys Lys
        35                  40                  45
Leu Arg Tyr Leu Arg Met Gln Arg Val His Asp His Leu Leu Leu Glu
    50                  55                  60
Glu Glu Tyr Val Glu Asn Met Glu Arg Leu Arg Lys Ala Lys Ala Gln
65                  70                  75                  80
Ala Thr Leu Asp Ser Val Ser Arg Gly Asp Leu Asp Ile Met Asp Arg
                85                  90                  95
Asn Ala Asp Glu Arg Ser Arg Val Asp Asp Met Arg Gly Ser Pro Met
            100                 105                 110
Gly Val Gly Asn Leu Glu Glu Leu Ile Asp Asp Asp His Ala Ile Val
        115                 120                 125
Ser Ser Ala Thr Gly Pro Glu Tyr Tyr Val Ser Ile Met Ser Phe Val
    130                 135                 140
Asp Lys Asp Leu Leu Glu Pro Gly Ala Ser Ile Leu Leu His His Lys
145                 150                 155                 160
Ser Val Ser Val Val Gly Val Leu Thr Gly Arg Val Arg Ser Ser Gly
                165                 170                 175
Leu Ser Ser
```

<210> 30089
<211> 68
<212> PRT
<213> A.fumigatus

<400> 30089

```
Phe Glu Cys Trp Ser Pro Arg Pro Gly Gln Met Ala Thr Thr Ala Tyr
1               5                   10                  15
Leu Arg Ala Leu Arg Pro Ser Leu Gln Arg Lys Leu His Ser Leu Thr
            20                  25                  30
Phe Thr Pro Ser Ser Thr Leu Leu Thr Ser Thr Ala Leu Phe Asn Asp
        35                  40                  45
Ser Ser Gly Ser Lys Val Ala Val Val Arg Gly Leu Ile Leu Leu Pro
    50                  55                  60
Leu Ser Asn Ser
65
```

<210> 30090
<211> 79
<212> PRT
<213> A.fumigatus

<400> 30090

```
Tyr Ile Phe Ser Ala Glu Leu Ser Cys Glu Cys Ser Asn Tyr Ser Ser
1               5                   10                  15
Ser Ala Ser Ser Ser Pro His Glu Ser Leu Leu Glu Pro Gln Ser Ser
            20                  25                  30
Lys Asp Ser Glu Ala Gln Tyr Ala Phe Ile Tyr Gln Tyr Gln Thr Ser
        35                  40                  45
Met Leu Thr Phe Ser Leu Ala Leu Pro Val Pro Pro Ser Pro Arg Ser
    50                  55                  60
Ser Ser Arg Phe Glu Leu Ile Lys Lys Ile Thr Asp His Ser Cys
65                  70                  75
```

<210> 30091
<211> 61
<212> PRT
<213> A.fumigatus

<400> 30091
Asn His Leu Ile Asp His Cys Asn Met Leu Ser Ala Arg Gly Glu Thr
1 5 10 15
Tyr Ala Lys Ala Gly Leu Ala Asn Ser Tyr Leu Glu Ala Leu Lys Thr
20 25 30
Pro Tyr Asn Lys Asp Asn Lys Gln Gly Val Val Ser Phe Arg Asn Ala
35 40 45
Glu Asn Val Leu Ser His Ile Leu Leu Leu Val Gly Ser
50 55 60

<210> 30092
<211> 185
<212> PRT
<213> A.fumigatus

<400> 30092
Arg Lys Met Tyr Cys Gly Asn Gly Ser Leu Met Arg Val Ala Pro Ile
1 5 10 15
Gly Leu Val Tyr Phe Arg Asp Met Glu Ile Ala Leu Ser Asn Ala Ala
20 25 30
Leu Ser Ser Asn Ala Thr His Pro Tyr Pro Arg Cys Ala Glu Cys Cys
35 40 45
Gln Ile Tyr Thr Arg Leu Ile Val Arg Ala Leu Asn Gly Ala Ser Lys
50 55 60
Glu Glu Leu Ala Glu Glu Phe Ala Arg Ile Asn Phe Thr Asp Val Lys
65 70 75 80
Val Lys Gln Arg Leu Asp Arg Tyr Ser Asn Leu Thr Asp Trp Glu Asn
85 90 95
Thr Asp Glu Glu His Ile Lys Ser Ser Gly Tyr Val Leu Ser Thr Leu
100 105 110
Glu Ala Ala Leu Trp Ala Phe Phe Thr Thr Ser Thr Phe Lys Ser Gly
115 120 125
Ala Val Lys Val Val Asn Leu Gly Asp Asp Ala Asp Thr Val Gly Ala
130 135 140
Val Tyr Gly Gly Leu Ala Arg Ser Tyr Tyr Gly Leu Glu Lys Ile Pro
145 150 155 160
Ala Asp Trp Ile Ala Ser Leu Gln Lys Lys Asn Ile Val Glu Glu Ile
165 170 175
Ala Ser Gly Leu Cys Ser Leu Thr Glu
180 185

<210> 30093
<211> 159
<212> PRT
<213> A.fumigatus

<400> 30093
Leu Thr Ala Leu Asp Ala Val Pro Lys Lys Arg Gly Pro Lys Thr Asp
1 5 10 15
Val Leu Glu Ala Leu Leu Lys Arg Val Asp Gly Leu Glu Lys Arg Leu
20 25 30

```
Gln Asp Glu Asn Lys Asn Pro Met Ser Pro Thr Ser Pro Val Glu Pro
        35                  40                  45
His Lys Glu Pro Pro Asp Pro Ser Ala Ser Met His Ala Leu Ala Arg
    50                  55                  60
Pro Ser Thr Ser Ser Thr Ser Thr Thr Ser Val Pro Pro Ser Glu Pro
65                  70                  75                  80
Phe Pro Arg Pro Phe Ser Phe Pro Ser Gln Pro Ser Pro Pro Val His
                85                  90                  95
Tyr Phe Ala Leu Pro Asp Ser Val Leu Asp Ala Tyr Phe Ala Arg Ile
            100                 105                 110
His Gly Lys Pro Tyr Phe Ile Leu Asp Glu Ser Val Thr Arg Gln Ser
        115                 120                 125
His Gln Met Gly Gln Leu Pro Val Ala Leu Ser Met Ala Ile Tyr Ala
    130                 135                 140
Ile Thr Leu Arg Phe Val Pro Pro Pro Pro Cys Leu Ser Phe Ile
145                 150                 155
```

<210> 30094
<211> 79
<212> PRT
<213> A.fumigatus

```
<400> 30094
Phe Ser Thr Asp His Cys Ser Tyr Thr Ser Ser Pro Asn Pro Ser Glu
1               5                   10                  15
Gln Ser Leu Arg Met Ala Leu Asp Tyr Ala Leu Gln Ala Arg Arg Met
            20                  25                  30
Val Asp Val Asp Gln Pro Thr Met Asp Gly Leu Gln Val Leu Leu Leu
        35                  40                  45
Leu Ser Gln Thr Phe Leu Ala His Gly Leu Gly Lys Lys Ala Tyr Met
    50                  55                  60
Thr Phe Ser Met Gln Ser Ile Ala Phe Trp Lys Asp Lys Thr Gly
65                  70                  75
```

<210> 30095
<211> 177
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (166)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 30095
Phe Asp Cys Ile Ala Asn Cys Ala Ser Met Ala Ile Ala Leu Asp Leu
1               5                   10                  15
Tyr Arg Glu Pro Pro Lys Ser Leu Pro Ala Gly Glu Arg Glu Ile Arg
            20                  25                  30
Arg Arg Leu Phe Trp Ala Val Tyr Ile Met Asp Arg Phe Leu Thr Cys
        35                  40                  45
Gly Ser Lys Arg Pro Gly Leu Ile Ala Asp His Ser Ile Val Leu Arg
    50                  55                  60
Leu Pro Ala Trp Ser Pro His Thr Ala Gly Leu Asn Val Glu Gly Glu
65                  70                  75                  80
Leu Phe Asn Asn Val Gly Pro Asn Ile Gln Tyr Ser Ser Asp Pro Arg
```

```
                85                  90                  95
Arg Lys Pro Ala Ala Thr Ala Leu Leu Ile Asp Ile Thr Arg Ile Leu
            100                 105                 110
Gly Ile Thr Asn Arg Tyr Leu Ala Ala Gly Gly Val Lys Gly Asp Ser
        115                 120                 125
His Phe Pro Trp His Ser Leu Ser Asn Leu Ser Lys Ile Arg Gln Glu
    130                 135                 140
Leu Asp Ile Trp Ala Thr Gly Thr Pro Asp Val Phe Ala Ser Val Glu
145                 150                 155                 160
Ala Leu Phe Gly His Xaa Glu Ser Ser Ile Leu Leu Leu Ser Lys Leu
                165                 170                 175
Ile
```

<210> 30096
<211> 170
<212> PRT
<213> A.fumigatus

<400> 30096

```
Tyr Leu Val His Cys Leu Ile Tyr Arg Pro Phe Leu Pro Ile Asp Leu
1               5                   10                  15
Val Glu Leu Arg Gly Thr Gly Gln His Gln Ser Trp Gln Ile Glu Ala
            20                  25                  30
Thr Asn Leu Cys Phe Ser His Ser Asn Ala Ile Ala Glu Leu Val Glu
        35                  40                  45
Leu Ala Arg Asn Ser Pro Leu Ile Glu Trp Pro Ala Phe Val Gly Tyr
    50                  55                  60
Cys Val Cys Thr Ala Gly Thr Val His Val His Gly Val His Tyr Lys
65                  70                  75                  80
Gly Arg Glu Gly Glu Val Phe Ser Ser Ser Ala Glu Phe Leu Thr Arg
                85                  90                  95
Glu Met His Gln Leu Thr Trp Leu Gly Ser Tyr Trp Ala Gly Val Gln
            100                 105                 110
His Gln Arg Glu Met Leu Gln Thr Ile Tyr Thr Cys His Ala Glu Leu
        115                 120                 125
Val Arg Thr Leu Ala Thr Ser Pro Met Arg Phe Ser Pro Val Phe His
    130                 135                 140
Leu Glu Asp Phe Leu Asp Arg Tyr Pro Gly Leu Thr Ala Asp Gly Ser
145                 150                 155                 160
His Val Arg Leu Val Asp Met Asp Asp Thr
                165                 170
```

<210> 30097
<211> 165
<212> PRT
<213> A.fumigatus

<400> 30097

```
Leu Gly Ser Pro Gln Leu Asp Pro Tyr Tyr Arg Ser Met Pro Ala Tyr
1               5                   10                  15
Ser Met Tyr His Asn Gln Pro Leu Arg Ala Pro Val Thr Leu Pro Ser
            20                  25                  30
Asn His Asn Pro Ser Pro Arg Arg Asp Ser His Ser Thr Ala Ser Thr
        35                  40                  45
Ala Thr Lys Pro Pro Gly Val Ser Ser Pro Ser Leu Thr Phe Pro Pro
```

```
    50                  55                  60
Ser Gln His Pro Gln Pro Ser Pro Gln Gln Leu His Ser Thr Phe Pro
65                  70                  75                  80
Leu Gly Asn Ala Asp Leu Thr His Pro Ser Ser Ser Asp Ala Ser Asn
                85                  90                  95
His His Asn His Asn His Asn His Ser Phe Ser Pro Pro Pro Pro Ser
            100                 105                 110
Ala Met Phe Gly Phe Ser Pro Pro Ala Phe Leu Thr Glu Ser Leu Pro
        115                 120                 125
Val Ala Pro Thr Pro Pro Ser His Pro Gln Tyr Ala Thr Phe Pro Phe
    130                 135                 140
Asp Ser Ser Ser Ser Asn Asn Asn Asn Asn Asn Asn Ser Asn His Gln
145                 150                 155                 160
Thr His Thr Gly Gln
                165
```

<210> 30098
<211> 69
<212> PRT
<213> A.fumigatus

<400> 30098
```
Ser Leu Cys Cys Ser Leu Leu Ser Gly Val Gly Leu Val Ala Ser Cys
1               5                   10                  15
Gly Ser Glu Ser Gly Asp Asn Arg Ser Gly Leu Phe Gly Ser Lys Val
            20                  25                  30
Gly Ser Arg Val Val Ala Ile Ser Ser Phe Phe Arg Ala Ile Leu His
        35                  40                  45
Ala Ile Trp Asp Asp Gln Thr Asn Pro Ser Ala Gly Val Leu Cys Val
    50                  55                  60
Asp Cys Pro Glu Lys
65
```

<210> 30099
<211> 456
<212> PRT
<213> A.fumigatus

<400> 30099
```
Leu Thr Gly Arg Arg Thr Ser Cys Leu Leu Val Leu Thr Val Arg Gly
1               5                   10                  15
Cys Ser Gly Ser Gly Lys Thr Gln Phe Leu Leu Ser Leu Leu Leu Ala
            20                  25                  30
Val Gln Leu Pro Glu Pro Arg Gly Leu Gly Lys Gly Ala Ile Tyr Ile
        35                  40                  45
Ser Thr Glu Ala Pro Leu Ala Thr Ser Arg Leu Ser Gln Leu Leu Glu
    50                  55                  60
Tyr His Pro Tyr Leu Ser Asp Leu Pro Lys Asp Arg Ala Pro Thr Leu
65                  70                  75                  80
Asp Asn Ile Leu Ser Ile Asn Ala Met Asp Leu Glu Ser Gln Asp His
                85                  90                  95
Ile Leu Asn Tyr Gln Leu Pro Val Ala Ile Thr Arg Tyr Asp Val Gly
            100                 105                 110
Leu Val Val Ile Asp Ser Ile Thr Ser Asn Tyr Arg Ala Glu His Thr
        115                 120                 125
Ser His Asn Val Leu Gly Leu Ser Thr Arg Ser Gly Glu Leu Ala Arg
```

```
    130                 135                 140
Leu Gly Gln Met Leu Arg Asn Leu Ala Val Ala Lys Asn Ile Ala Ile
145                 150                 155                 160
Val Val Ala Asn Gln Val Ser Asp Arg Phe Asp Pro Leu Glu Asp Asn
                165                 170                 175
Ala Ala Leu Arg Arg Ala Ala Ala Tyr Gly Asn Thr Ile Gly Ser Ser
            180                 185                 190
Ser Pro Val Ser Thr Gln Gln Gln Pro Thr Thr Pro Leu His Arg Asp
        195                 200                 205
Ser Ala Ile Ala Ser Pro Leu Pro Ala Ala Arg Ser Arg Pro Pro Glu
    210                 215                 220
Ser Gly Asn Ala Glu Leu Ser Pro His Ile Thr Ile Ala Pro Pro Ser
225                 230                 235                 240
Ser Ser Pro Ala Phe Pro Ser Ser Pro Phe Leu Ala Asp Asp Asn Pro
                245                 250                 255
Ser Glu Gln Gln Pro Gln Asp Phe Asp Gly Ser Tyr Leu Ile Gly Asn
            260                 265                 270
Pro Val Arg Asn Glu Leu Leu Ser Leu Met His Gln Gln Arg Phe Phe
        275                 280                 285
Thr Gly Trp Gly Asp Thr Pro Gln Ala Ala Ala Pro Pro Ser Pro Tyr
    290                 295                 300
Tyr Phe Ser Gly Gln Ser Thr His Lys Thr Pro Ala Leu Gly Phe Val
305                 310                 315                 320
Trp Ser Ser Gln Ile Ala Cys Arg Ile Ala Leu Lys Lys Glu Glu Ile
                325                 330                 335
Ala Thr Thr Leu Asp Pro Thr Phe Glu Pro Lys Ser Pro Asp Leu Leu
            340                 345                 350
Ser Pro Asp Ser Glu Pro His Glu Ala Thr Arg Pro Thr Pro Asp Ser
        355                 360                 365
Lys Glu Gln Gln Ser Asp His Arg Val Leu Glu Thr Ser Leu Asp Val
    370                 375                 380
Pro Pro Val Arg Gln Arg Ile Thr Pro Gln Pro Ala Pro Pro Asp Ile
385                 390                 395                 400
Ile Pro Pro Arg Thr Leu Arg Arg Thr Met Lys Leu Val Phe Ala Pro
                405                 410                 415
Trp Thr Ala Gly Arg Val Thr Thr Thr Val Gly Lys Asp Gly Asn Ser
            420                 425                 430
Thr Val His Val Gln Asp Glu Val Glu Tyr Thr Ile Trp Lys Gly Gly
        435                 440                 445
Leu Arg Ser Val Glu Ala Gln Glu
    450                 455
```

<210> 30100
<211> 69
<212> PRT
<213> A.fumigatus

<400> 30100

```
Gly Ala Thr Lys Arg Ser Pro Arg Leu Gly Asn Lys Leu Arg Cys Pro
1               5                   10                  15
Thr Arg Thr Ala Thr Asp His Ala Pro Thr Gly Thr Thr Gly His Asn
            20                  25                  30
Pro Pro Ser His Ala Pro Lys Asn Tyr Glu Thr Gly Leu Cys Ala Leu
        35                  40                  45
Asp Arg Arg Glu Gly Asp Asp Tyr Cys Arg Gln Gly Arg Glu Leu Tyr
    50                  55                  60
```

Arg Ser Arg Pro Arg
65

<210> 30101
<211> 199
<212> PRT
<213> A.fumigatus

<400> 30101
Cys Ala Lys Val Glu Ala Ile Gly Phe Ile Ser Arg Ser Ile Ser Ala
1 5 10 15
Gln His Val Ser Glu Arg Thr Pro Tyr Val Leu Gln Phe Ser Leu Ile
20 25 30
Ile Leu Ala Pro Val Leu Met Ala Ala Cys Cys Tyr Ile Leu Phe Gly
35 40 45
Arg Ile Leu Phe His Val Val Pro Pro Glu Ala Arg Thr Phe Gln Leu
50 55 60
Cys Trp Val Pro Pro Arg Phe Ile Thr Pro Ile Phe Val Gly Phe Asp
65 70 75 80
Ile Val Ala Leu Leu Leu Gln Leu Gly Gly Ala Val Leu Ile Thr Ser
85 90 95
Ala Asp Gly Thr Ser Ser Asp Ala Lys Asp Lys Phe Asp Arg Gly Arg
100 105 110
Asn Ile Ala Leu Ile Gly Val Ile Val Gln Met Val Ala Phe Gly Leu
115 120 125
Phe Ser Leu Ala Ala Phe Arg Phe Asn Phe Thr Ser Lys Arg Phe Ala
130 135 140
Lys Pro Val Asp Glu Gln Phe Glu Met Leu Ala Ser Asn Asp Ala Gly
145 150 155 160
Thr Gly Gly Arg Glu Lys Ser Ala Asn Trp Asn Ala Leu Leu Arg Val
165 170 175
Val Asn Phe Ser Thr Leu Met Ile Leu Val Ser Val Ser Lys Arg Ser
180 185 190
Ser Pro Val Leu Asn His Arg
195

<210> 30102
<211> 152
<212> PRT
<213> A.fumigatus

<400> 30102
Thr Ser Val Asn Tyr Trp Leu Lys Tyr Pro Ser Tyr His Pro Phe Gly
1 5 10 15
Gly Arg Pro Glu Asp Thr Pro Met Ile Asn Thr Gly Gly Pro Ala Leu
20 25 30
Ser Arg Asn Asp Thr Leu Pro Asn Ser Leu Glu Lys Asn Asn Pro Ser
35 40 45
Phe His Leu Val Leu Pro Ala Gly Gln Lys Ser Ala Ala Leu Cys Arg
50 55 60
Thr Ile Thr Ser Ala Met Ile Leu Asn Tyr Pro Pro Pro Thr Leu Val
65 70 75 80
Gln Tyr Gly Arg Lys Leu Pro Ser Gly Ser Ser Glu Tyr Asp Tyr Val
85 90 95
Val Asp Arg Val Thr Ala Ile Tyr Asn Phe Leu Gln Tyr Thr Pro His
100 105 110

```
Val Arg Asp Gly Asp Phe Val Leu Ile Ala Asp Gly Tyr Asp Val Phe
        115                 120                 125
Phe Gln Leu Pro Pro Glu Val Leu Ile Gln Arg Phe Gln Asn Ile Leu
    130                 135                 140
Arg Glu Asn Asn Ala Lys Leu Ser
145                 150
```

<210> 30103
<211> 152
<212> PRT
<213> A.fumigatus

<400> 30103

```
Pro Ile Gly Glu Gly Ser Ser Phe Ser Arg Val Val Pro Phe Ala Thr
1               5                   10                  15
Arg Pro Leu Phe Trp Arg Asp Arg Lys Phe Lys Ser Pro Leu Glu Leu
            20                  25                  30
Met Val Asn Ser Arg Arg Ser Leu Arg Phe Pro Ile Ser Ser Thr Ser
        35                  40                  45
Val Ser Tyr Ile Pro Val Trp Thr Gly Gly Ile Val Gly Thr Ala Ala
    50                  55                  60
Gly Ile Asn Pro Lys Ile Leu Asp Asn Leu Gln Ser Asp Thr Val Leu
65                  70                  75                  80
Ser Ile Ala Ser Trp Glu His Gly Gly Tyr Asp Gln Gln Phe Glu Trp
                85                  90                  95
Asp Thr Ser Pro Asp Ser Asn Gln Asp Glu Ala Glu Val Val Asp Leu
            100                 105                 110
Gly Val Ile His Gly Ser Leu Ala Asp Asp Gln Pro Ser Ala Ser Val
        115                 120                 125
Phe Gly His Asn Ser Asp Pro Arg Leu Ala Gln Asn Leu Leu Phe Arg
    130                 135                 140
Arg Asp Gly Cys Asn Arg Ser Ser
145                 150
```

<210> 30104
<211> 416
<212> PRT
<213> A.fumigatus

<400> 30104

```
Leu Met Asp Leu Ser Leu Ala Cys Ser Asn Pro Gly Leu Ile Ser Pro
1               5                   10                  15
Glu Lys Leu Ser Ala Val Asp Ala Ala Ile Glu Gly Thr Ile Ser Gly
            20                  25                  30
Thr Val Ser Pro Arg Thr Leu Pro Ser Ser Thr Asp Asp Asn Phe His
        35                  40                  45
Val Asp Glu Thr Trp Pro His Phe Gln Leu Ile Asn Pro Met Ala Ala
    50                  55                  60
Gly Leu Pro Val Asp Ala Pro Met Ala Leu Pro Tyr Ala Lys Asp Pro
65                  70                  75                  80
Thr Ser Asn Asn Thr Val Ile Val Asp Asp Gly Gly Glu Leu Ser Asn
                85                  90                  95
Gly Gln Gly Phe Pro Glu Val Gln Pro Glu Gln Tyr Leu Thr Phe Gln
            100                 105                 110
Asn Leu Ser Gln Ala Phe Gln Phe Ala Gly Asp Pro Trp Ala Glu Pro
        115                 120                 125
```

```
Pro Val Asn Leu Asp Ala Asn Thr Ser Ala Gln Ala Pro Ile Ser Val
    130                 135                 140
Pro Gln Met Arg Pro Gln Val Gln Ile Gln Ile Ile Asn Gln Pro Arg
145                 150                 155                 160
Ser Phe Gln Gly Ser Leu Arg Pro Leu Glu Ser Arg Trp Leu Glu Ser
                165                 170                 175
Leu Glu Ser Gln Leu Pro Thr Asn Leu Thr Leu Pro Ala Ser Leu Thr
            180                 185                 190
Thr Asp Cys Gln Asp His Ser Leu Pro Lys Asp Asp Arg Arg Leu Gln
        195                 200                 205
Asp Ala Phe Gln Tyr Lys Ser Glu Ser Ser Ser Val Ser Gly Asp Leu
    210                 215                 220
Ser Gly Val Tyr Asp Cys Ser Tyr Ser Gly Leu Ser Asp Asp Val Pro
225                 230                 235                 240
Ala Phe Ala Glu Arg Gln Leu Glu Asp Asp Gly Ala Trp Lys Asp Ala
                245                 250                 255
Gln Lys Lys Glu Ser Ser Ser Ala Thr Ser Arg Pro Leu Gln Gly Ala
            260                 265                 270
Thr Ala Phe Val Val Ser Glu Asn Pro Gln Glu Ser Phe Phe Met Thr
        275                 280                 285
Ala Pro Ser Arg Ser Arg Ala Ser Ser Thr Ala Ala Gln Arg Ala Ser
    290                 295                 300
Gly Arg Pro Gln Ala Leu Ala Leu Gln Ser Val Ala Thr Val Arg Lys
305                 310                 315                 320
Arg Lys Gln Arg Thr Ser Asn Val Ser Ile Asp Gln Ser Leu Pro Lys
                325                 330                 335
Pro Leu Gln Ile Val Gln Glu Asp Gly Gln Gly Gly Ser Ile Ala Ser
            340                 345                 350
Ala Asp Phe Val Ser Pro Pro Arg Gly Ala Arg Arg Lys Gly Pro Leu
        355                 360                 365
Ser Met Val Gly Arg Ala Asn Ala Gly Leu Arg Arg Lys Asn Lys Asp
    370                 375                 380
Thr Cys Val Gln Cys Arg Leu Asn Lys Arg Lys Val Gly Leu Pro Ala
385                 390                 395                 400
Ser Gly Leu Phe Trp Ser Gln Tyr His Arg Lys Leu Met Ile Ala Val
                405                 410                 415
```

<210> 30105
<211> 71
<212> PRT
<213> A.fumigatus

<400> 30105

```
Pro His Glu Cys Val Ser Cys Asn Pro Ile Ile Tyr Leu Lys Arg Cys
1               5                   10                  15
Ala Phe Ala His Ser Gln Gly Asn Ala Cys Thr Asn Thr Gly Val His
            20                  25                  30
Pro Ala Thr Glu Phe Met Glu Val Tyr Asp Ser Gln Asp Phe Glu Lys
        35                  40                  45
Thr Thr Thr Ala Tyr Gly Leu Gln Thr Arg Leu Ile Ile Ile Cys His
    50                  55                  60
Val Ile Thr Trp Ser Met Ile
65                  70
```

<210> 30106
<211> 61

<212> PRT
<213> A.fumigatus

<400> 30106
Thr Tyr Ala Leu Ala Asn Cys His Pro Phe Cys Ile Ser Leu Gly Ile
1 5 10 15
Cys Lys Thr Ser Glu Ser Ala Gln Gly Ser Asn Val Val Ala Gln Asn
20 25 30
Asn Leu Pro Thr Glu Tyr Lys Ser Asp Ala Asn Tyr Ala Ser Tyr Lys
35 40 45
Asn Gly Gly Leu Phe Cys Gln Ile Phe Asn Tyr Pro His
50 55 60

<210> 30107
<211> 116
<212> PRT
<213> A.fumigatus

<400> 30107
Ser Leu Gln Phe Leu Leu Lys Ser Val Ile Met Ala Ser Glu Gln Pro
1 5 10 15
Val Glu Ala Ala Pro Thr Gly Gly Ser Leu Ala Asp Arg Ile Thr Lys
20 25 30
Pro Asp Glu Ser Asn Thr Ser Gly Thr Arg Ala Tyr His Leu Pro Ser
35 40 45
Ala Asp Gln Thr Glu His Thr Thr Asn Leu Leu Lys Ala Glu Thr Pro
50 55 60
Ala Pro Ile Gly Asp Gln Thr Asp Gly Ala Pro Ala Gln Leu Gly Gly
65 70 75 80
Ser Asp Leu His Glu Pro Glu Tyr Asn Val Glu Val Lys Leu Ser Asp
85 90 95
Leu Gln Ala Asp Pro Asn Asn Pro Leu Tyr Ser Val Lys Asn Phe Glu
100 105 110
Asp Leu Gly Leu
115

<210> 30108
<211> 174
<212> PRT
<213> A.fumigatus

<400> 30108
Leu Thr Ser Leu Arg Pro Asn Arg Asp Pro Arg Ile Leu Lys Gly Leu
1 5 10 15
Ser Ser Met Asn Phe Arg Lys Pro Ser Lys Ile Gln Glu Arg Ala Leu
20 25 30
Pro Leu Leu Leu Asn Asn Pro Pro Lys Asn Leu Val Gly Gln Ser Gln
35 40 45
Ser Gly Thr Gly Lys Thr Ala Ala Phe Val Leu Asn Ala Leu Ser Arg
50 55 60
Val Asp Leu Ser Thr Glu Gln Met Gln Lys Thr Pro Gln Ala Leu Ile
65 70 75 80
Leu Ala Pro Thr Arg Glu Leu Ala Arg Gln Ile Leu Gly Val Val Gln
85 90 95
Val Met Gly Gln Phe Val Asp Gly Leu Ile Ile Gly Ala Ala Val Pro
100 105 110

```
Thr Asp Arg Asp Ser Arg Pro Lys Arg Leu Glu Cys Ser Ile Val Val
        115                 120                 125
Gly Thr Pro Gly Thr Val Gly Asp Met Ile Lys Arg Arg Thr Phe Ile
    130                 135                 140
Pro Asn Lys Leu Lys Val Leu Val Leu Asp Glu Ala Asp Asn Met Leu
145                 150                 155                 160
Asp Gln Gln Gly Leu Gly Asp Gln Cys Ile Arg Val Lys Ala
                165                 170
```

<210> 30109
<211> 128
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (109),(114)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30109

```
Val Ser Asn Gly Ile Gln Trp Leu Asp Glu Ile Gln Gln Phe Tyr Arg
1               5                   10                  15
Glu Arg Ser Ala Ile Glu Lys Glu Tyr Ala Ala Lys Leu Thr Thr Leu
            20                  25                  30
Cys Arg Lys Tyr Ser Asp Arg Lys Ala Lys Lys Ile Ser Ser Leu Ser
        35                  40                  45
Val Gly Asp Asn Pro Ala Met Thr Pro Gly Ser Leu Glu Ser Ala Ser
    50                  55                  60
Leu Thr Thr Trp Thr Thr Gln Leu Thr Ala Val Glu Ser His Ala Ala
65                  70                  75                  80
Glu Arg Asp Lys Phe Ala Ser Glu Leu Val Ala Gln Val Ala Glu Pro
                85                  90                  95
Leu Lys Gln Ala Ala Ala Gln Tyr Glu Glu Leu Arg Xaa Cys His Val
            100                 105                 110
Asp Xaa His Ala Arg Leu Glu Lys Glu Arg Asp Ser Ser Tyr Ser Glu
        115                 120                 125
```

<210> 30110
<211> 181
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (25)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30110

```
Ile Ser Leu Leu Pro Val Leu Phe Pro Ile Phe Asp Thr Gln His Ser
1               5                   10                  15
Phe His Thr Met Ser Ser Glu Thr Xaa Tyr Lys Thr Gln Gln Asp Leu
            20                  25                  30
Arg Lys Ala Glu Ser His Ala Ser His Ala Ala Gly Gly Asn Thr Pro
        35                  40                  45
Ala Asn Ser Asn Val Ser Ala Met Lys Val Thr Pro Asn Leu Leu Ile
    50                  55                  60
```

```
Gln Phe Gly Asp Thr Ala Ala Asn Ser Thr Asn Gln Ser Ile Val Asp
65                  70                  75                  80
Glu His Thr Asp Lys Ala Lys Ala Ile Glu Glu Arg Lys Ala Asn Leu
                85                  90                  95
Pro Leu Pro Asp Gln Pro Pro Val Ala Ser Asp Trp Gln Ser Ala Asp
            100                 105                 110
Gln Arg Ala Val Asn Val Gly Ser Gly Gly Val Gln Gly Ser Val Ser
        115                 120                 125
Gly Glu Ser Asn Thr Ala Leu Arg Asp Pro Ala Thr Ala Gly Ser Ser
    130                 135                 140
Ala Arg Met Ser Gly Glu Glu Leu His Lys Glu Thr Gln Pro Thr Gly
145                 150                 155                 160
Asn Val Gly Arg Gln Ala Thr Glu Gly Leu Ser Asp Ile Pro Gly Asp
                165                 170                 175
Ala Lys Ala Arg Lys
            180
```

<210> 30111
<211> 84
<212> PRT
<213> A.fumigatus

<400> 30111

```
Leu Pro Leu Trp Gly Lys Tyr Gly Asp Gln Thr Leu Ser Gly Pro Arg
1               5                   10                  15
Arg Asp Gly Lys Thr Ser Gln Arg Phe Val Arg Ser Met His His Pro
            20                  25                  30
Gln Trp Phe Ile Arg Pro Arg Pro Val Thr Lys Thr Asn Gly Val Ser
        35                  40                  45
Asp Gly Arg Ile Gln Ala Lys Val Gln Asp Ala Ala Phe Gly Leu Ala
    50                  55                  60
Ala Arg Leu Ala Gly Leu Ser Thr Lys Glu Asn Phe His Glu Gln Tyr
65                  70                  75                  80
Pro His Asp Lys
```

<210> 30112
<211> 132
<212> PRT
<213> A.fumigatus

<400> 30112

```
Arg Leu Tyr Arg Thr Ala Leu Ala Leu Leu Ala Glu Leu Pro Lys Thr
1               5                   10                  15
Cys Asp Thr Ile Ala Asp Ala Phe Asn Lys Asn Ser Arg Glu Leu Lys
            20                  25                  30
Ala Ala Arg Asp Glu Leu Cys Asn Ala Gln Ser Glu Leu Thr Ile Leu
        35                  40                  45
Lys Gly Leu Leu Glu Ile Leu Phe Asn Leu Leu Glu Lys Met Trp Ala
    50                  55                  60
Thr Val Arg Thr Tyr Gln Met Gly Lys Asp Met Lys Glu Ala Glu Val
65                  70                  75                  80
Gln Gly Glu Gly Glu Pro Leu Gly Ala Ile Leu Asp Leu Ala Ile Met
                85                  90                  95
Gln Leu Asp Leu Gln Ser Thr Lys Ile Asp Cys Asp Ala Leu Arg Arg
            100                 105                 110
```

```
Glu Asn Thr Phe Leu Arg Ser Leu Leu His Gly Thr Glu Ala Ala Ala
        115                 120                 125
Asp Gln Cys Glu
    130
```

<210> 30113
<211> 111
<212> PRT
<213> A.fumigatus

<400> 30113

```
Tyr Lys Gly Asp Glu Pro Ser Leu Glu Met Thr Phe Asn Phe Leu Ser
1               5                  10                  15
Val Ser Asn Asn Thr Val Trp Ser Cys Phe Pro Glu Thr Leu Thr Met
            20                  25                  30
Ala Ser Val Leu Gly Leu Val Ala Ser Ala Trp Leu Leu Pro Thr Ala
        35                  40                  45
Tyr Gly Ala Ser His Ser Leu Ala Pro Ser Thr Ser Ala Thr Ser Ala
    50                  55                  60
Gln Ala Gln Tyr Thr Leu Pro Ser Ser Ile Asp Val Gly Ala His Leu
65                  70                  75                  80
Ile Ala Asn Ile Asp Asp Pro Leu Ala Val Asp Ala Gln Ser Val Cys
                85                  90                  95
Pro Gly Tyr Thr Ala Ser Asp Val His Gln Thr Ser His Gly Phe
            100                 105                 110
```

<210> 30114
<211> 82
<212> PRT
<213> A.fumigatus

<400> 30114

```
Val Gln Ala Asn Gly Phe Arg Ala Val Thr Tyr Ser Gly Ser Trp Gln
1               5                  10                  15
Asn Ser Gly Asn Gly Tyr Leu Ser Val Tyr Gly Trp Thr Thr Ser Pro
            20                  25                  30
Leu Val Glu Phe Tyr Ile Val Glu Ser Tyr Gly Ser Tyr Asp Pro Ser
        35                  40                  45
Thr Gly Thr His Pro Ser Arg His Arg Pro Ile Ala Lys Gly Pro Arg
    50                  55                  60
Thr Thr Ser Thr Arg Pro Arg Gly Thr Lys Arg Arg Pro Ser Ser Ala
65                  70                  75                  80
Pro Leu
```

<210> 30115
<211> 111
<212> PRT
<213> A.fumigatus

<400> 30115

```
Ser Tyr Pro Leu Thr Arg Leu Thr Asn Ile Thr Ser Ile His Asn Ser
1               5                  10                  15
His Thr Leu Leu Ile Cys Asn Met Ala Ser Phe Arg Gly Ile Ser Leu
            20                  25                  30
His Met Thr Val Tyr Ile Asp Pro Ala Lys Leu Pro Thr Phe Trp Glu
```

```
        35                  40                  45
Ala Phe Lys Pro Val Tyr Glu His Val Ile Ala Glu Pro Glu Cys Thr
    50                  55                  60
Phe Phe Glu Val Tyr Gln Asp Pro Glu Asn Pro Gly Thr Ile Thr Trp
65                  70                  75                  80
Val Glu Asn Trp Cys Val Val Ala Asn Met Met Lys Asn Leu Thr Asp
                85                  90                  95
Trp Ser Pro Trp Thr Gly Gln Asn Arg Arg Asn Gly Ser Leu Arg
            100                 105                 110
```

<210> 30116
<211> 131
<212> PRT
<213> A.fumigatus

<400> 30116

```
Ser His Asp Tyr Leu Ser Leu Gly Ile Ala Thr Lys Asp Ile Ile Phe
1               5                   10                  15
Ser Ile Glu Ala Ile Lys Gln Ser Ser Asn Gln Thr Thr Ile Asn Met
            20                  25                  30
Val Ser Phe Ser Ser Leu Val Leu Ala Ala Ser Thr Val Ala Gly Val
        35                  40                  45
Leu Ala Thr Pro Gly Ser Glu Gln Tyr Val Glu Leu Ala Lys Arg Gln
    50                  55                  60
Leu Thr Ser Ser Gln Thr Gly Thr Asn Asn Gly Tyr Tyr Tyr Ser Phe
65                  70                  75                  80
Trp Thr Asp Gly Gly Gly Gln Val Thr Tyr Thr Asn Gly Asn Gly Gly
                85                  90                  95
Gln Tyr Gln Val Asp Trp Asn Asn Cys Gly Asn Phe Val Ala Gly Lys
            100                 105                 110
Gly Trp Asn Pro Gly Asn Glu Lys Tyr Ala Ser Ser Pro Cys Leu Leu
        115                 120                 125
Gly Ser Ser
    130
```

<210> 30117
<211> 282
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (27)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30117

```
Glu Glu Ala Ile Glu Arg Glu Lys Pro Glu Val Glu Glu Arg Ser Leu
1               5                   10                  15
Gln Arg Glu Thr Gly Gly Gly Ala Glu Asn Xaa Arg Met Gly Ala Val
            20                  25                  30
Lys Glu Phe Thr Val Ser His Glu Gly Arg His Gly Cys Ser Gln Asn
        35                  40                  45
Ser Ser Val Phe Val Lys Leu Arg Trp Val Arg Glu Gly Arg Gly Leu
    50                  55                  60
Glu Leu Asp Gln His Arg Leu Met Ser Leu Phe Lys Pro Phe Gly Lys
65                  70                  75                  80
```

```
Val Glu Asn Thr Phe Met Leu Lys Asp Lys Arg Gln Arg Val Gly Asp
                85                  90                  95
Lys Arg Glu Lys Lys Thr Val Ala Thr Gly Val Val Val Phe Ala Ser
            100                 105                 110
Ile Val Ser Ala His Ala Ala Val Leu Asp Ser Glu Lys Lys Arg Arg
        115                 120                 125
Gln Ser Ala Gly Gln Pro Asp Asn Asp Trp Ser Leu Ile Glu Ser Val
    130                 135                 140
Ser Trp Ala Phe Gly Asn Gln Pro Asp Ile Val Gly Thr Glu Thr Arg
145                 150                 155                 160
Ala Ala Ser Pro Ile Ser Thr Pro Asp Glu Ala Ser Ser Ala Gln Lys
                165                 170                 175
Pro Pro Pro His Val Gly Pro Ser Lys Thr Ala Phe Asp Phe Ser Lys
            180                 185                 190
Leu Lys Ser Ala Ala Pro Pro Gly Gly Ser Gly Lys Thr Pro Gly Lys
        195                 200                 205
Ala Pro Ser Phe Ala Ser Phe Ala Ser Ala Ala Gly Ser Ser Lys Pro
    210                 215                 220
Thr Pro Ser Asp Thr Ser Ala Asn Gly Arg Ser Thr Pro Ser Phe Gln
225                 230                 235                 240
Glu Ile Thr Leu Met Arg Leu Lys Asn Ala Gln Arg Glu Lys Glu Arg
                245                 250                 255
Lys Ala Leu Glu Ala Gln Leu Met Lys Glu Asp Glu Ala Ala Asp Ala
            260                 265                 270
Ala Glu Ala Ala Ala Ala Glu Ala Arg Cys
        275                 280
```

<210> 30118
<211> 306
<212> PRT
<213> A.fumigatus

<400> 30118

```
Thr Ser Ile Glu Ser Gly Arg Ile Gly Gly Pro Glu Lys Arg Gly Thr
1               5                  10                  15
Pro Val Met Val Phe Gln Gly Lys Thr Met Leu Ser Pro Arg Trp Ala
            20                  25                  30
Glu Asn Asn Leu Glu Ser Glu Leu Ser Ser Pro Phe Ala Pro Trp Ser
        35                  40                  45
Ser Val Ala Glu Cys Ile Asp Thr Arg Ala Pro Gly Phe Gly Ser Arg
    50                  55                  60
Leu Val Thr Pro Gly Glu Glu Asp Leu Arg Val His Leu Pro Asp Glu
65                  70                  75                  80
Ala Gln Val Ala Gly Ser Gln Val Asp Leu Gly Thr Tyr Thr Val Arg
                85                  90                  95
Arg Met Leu His Gly Ile Ala Glu Gly Gln Asp Glu Ile Ile Arg Glu
            100                 105                 110
Ser Ala Leu Pro Leu Glu Cys Asn Met Asp Met Met Arg Gly Val Asp
        115                 120                 125
Phe Arg Lys Gly Cys Tyr Val Gly Gln Glu Leu Thr Ile Arg Thr His
    130                 135                 140
His Thr Gly Val Val Arg Lys Arg Ile Val Pro Val Gln Leu Tyr Ala
145                 150                 155                 160
Asn Ser Ala Pro Gln Ser Gly Asp Thr Pro Val Tyr Asp Pro Ser Ala
                165                 170                 175
Ala Val Ala Leu Pro Pro Ser Gly Ser Asn Ile Ser Lys Val Asp Gly
```

```
            180                 185                 190
Arg Lys Gly Arg Ser Ala Gly Lys Phe Leu Gly Gly Val Gly Asn Ile
        195                 200                 205
Gly Leu Ala Leu Cys Arg Leu Glu Ile Met Thr Asp Ile Val Leu Thr
    210                 215                 220
Gly Glu Gly Ser His Tyr Ser Pro Glu Gln Glu Phe Lys Ile Ser Trp
225                 230                 235                 240
Ser Ala Pro Glu Glu Gly Ser Ser Ser Ala Thr Glu Pro Gly Glu Val
                245                 250                 255
Lys Val Lys Ala Leu Val Pro Pro Trp Leu Arg Asp Tyr Ile Ser Ser
            260                 265                 270
Gly Ala Arg Asn Leu Ala Arg Lys Val Asp Asn Gln Glu Gly His Arg
        275                 280                 285
Ala Lys Glu Leu Leu Tyr Gln Leu Glu Glu Glu Glu Glu Gln Arg Arg
    290                 295                 300
Asn Glu
305
```

<210> 30119
<211> 687
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (4),(10),(11),(656),(682)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30119

```
Tyr Asp Ile Xaa Arg Pro Cys Gly Lys Xaa Xaa Glu Gly Ala Arg Asp
1               5                   10                  15
Gly Thr Asn Arg Phe Ser Ile Ser Ser Ser Gly Trp His Asn Pro Phe
            20                  25                  30
Pro Pro His Ser Ala Gly Pro Thr Asn Gln Phe Ala Met Asp Tyr Ser
        35                  40                  45
Ser Pro Thr Leu Asn Asp Leu Gly Ile Pro Pro Glu Thr Val Ser Pro
    50                  55                  60
Lys Ser Leu Met Ala Gln Asn Pro Phe Ala Glu Thr Tyr Ala Thr Pro
65                  70                  75                  80
Pro Ser Met Thr Ser Val Gly Gln Pro Leu Met Ala Gly His Ser Gln
                85                  90                  95
Ser Met Phe Ser Ser Ser Met Ala Thr Asn Gly Glu Ser Pro Asn Pro
            100                 105                 110
Phe Asn Leu Pro Phe Thr Asn Ser Asp Leu Arg Ser His His Ala Pro
        115                 120                 125
Thr Ser Thr Asp Thr Phe Thr Asp Ser Thr Arg Gln Ala Leu Leu Ala
    130                 135                 140
Ser Met Ala Leu Pro Thr Gly Leu Gln Asn His Arg Lys Tyr Ser Gln
145                 150                 155                 160
Pro Ala Ser Gly Met Thr Pro Cys Arg Asp Leu Phe Ser Arg Ser Ala
                165                 170                 175
Thr Phe Ser Gly Thr Gly Gln Leu Pro Ser Thr Gln Asp Met Gln Arg
            180                 185                 190
Tyr Ile Ser Ala Tyr Ile Thr Tyr Phe His Pro His Met Pro Phe Leu
        195                 200                 205
His Ile Pro Thr Leu Asn Phe Gln Ala Pro Glu Tyr Thr Asn Asn Leu
```

```
    210                 215                 220
Arg Thr Pro Ser Gly His Leu Asn Leu Ser Ser Thr Gly Ile Ala Gly
225                 230                 235                 240
Gly Gly Gly Cys Leu Ile Leu Ser Met Ala Ala Ile Gly Ala Leu Tyr
                245                 250                 255
Glu Phe Asp Thr Ala Ala Ser Lys Asp Leu Phe Glu Ala Ala Lys Lys
            260                 265                 270
Met Ile Gln Leu Tyr Leu Glu Glu Arg Arg Lys Ala Asp Met Ser Ala
        275                 280                 285
Ala Phe Ser Arg Ser Asn Pro Ala Arg Glu Asn Ser Val His Asn Thr
    290                 295                 300
Pro Leu Trp Leu Val Gln Ala Met Leu Leu Asn Val Ile Tyr Gly His
305                 310                 315                 320
Ser Ser Gly Asp Lys Thr Ser Ala Asp Ile Ala Ser Thr His Cys Ala
                325                 330                 335
Ala Leu Val Ser Leu Ala Arg Ala Ala Gly Leu Thr His His Ile Asp
            340                 345                 350
Ala Lys Asp Leu Pro Gln Asp Tyr Leu Asn Thr His Leu Ser Gly Lys
        355                 360                 365
Val Gly Ser Met Gly Ala Ser Ser Glu Ser Glu Asp Ser Asn Thr Ala
    370                 375                 380
Ser Phe Gly Pro Pro Lys Glu Arg Lys Asp Trp Leu Asp Trp Lys Ile
385                 390                 395                 400
Val Glu Glu Arg Lys Arg Thr Val Tyr Ala Ile Phe Thr Leu Ser Cys
                405                 410                 415
Phe Leu Val Ser Ala Tyr Asn His Ala Pro Ala Leu Thr Asn Ser Glu
            420                 425                 430
Ile Arg Leu Asp Leu Pro Cys Glu Glu Asp Val Trp Ala Ala Glu Ser
        435                 440                 445
Pro Gln Ala Trp Lys Lys Leu Gly Gly His Leu Ser Ala Lys Lys Gly
    450                 455                 460
Leu Ala Phe Ser Ser Ala Leu Thr Thr Leu Leu Thr Ala Ser Gln Arg
465                 470                 475                 480
Glu Gln Ser His Gly Gln Leu Ser Ser Pro Asp Ala Thr Asn Gly Val
                485                 490                 495
Ser Ala Ser Asp Pro Thr Ala Thr Asp Leu Lys Pro Ser Thr Phe Gly
            500                 505                 510
Cys Leu Val Leu Ile Tyr Ala Leu His Asn Tyr Ile Trp Glu Thr Arg
        515                 520                 525
Gln Arg His Met Gly Arg Gln Trp Thr Ala Arg Glu Thr Asp Ala Met
    530                 535                 540
Gln Ala His Ile Glu Pro Ala Leu Arg Ala Trp Gln Thr Ala Trp Ala
545                 550                 555                 560
Ser Asn Pro Thr His Ser Leu Glu Arg Pro Asn Pro Phe Gly Ala Gly
                565                 570                 575
Pro Leu Ser Ala Asp Ser Ile Pro Leu Leu Asp Leu Ala Tyr Ile Arg
            580                 585                 590
Leu Phe Val Asn Leu Gly Arg Ser Lys Glu Ala Phe Trp Gln Arg Asp
        595                 600                 605
Trp Ile Ala Met Ser Asp Glu Leu Ala Arg Gly Thr Glu Val Phe Pro
    610                 615                 620
Tyr Ser Asp Asp Ile Ser Ser Asp Val Leu Asp Pro Ser Ile Thr Gln
625                 630                 635                 640
Val Pro Ser Glu Leu Asp His Arg Arg Asp Ser Val Ala Asp Leu Xaa
                645                 650                 655
Val Gly Asp Leu Thr Ile Ser Lys Thr Pro Thr Arg Glu Gln Pro Met
```

660 665 670
Gln Ile Leu Met Gly Val Tyr Arg Pro Xaa Gln Ser Lys Arg Glu
675 680 685

<210> 30120
<211> 120
<212> PRT
<213> A.fumigatus

<400> 30120
Leu Asp Ser Ile Ile Met Thr Leu Pro Thr Ala Asn Ile Gln Arg Asn
1 5 10 15
Ala Gly Cys Ser Ile Val Leu Tyr Asn Asn Thr Glu Ser Thr Thr Gln
20 25 30
Tyr Cys Cys Asn Ser Ile Val Asn Asn Pro Asn Gly Ser Leu Pro Phe
35 40 45
Cys Asp Gln Gly Leu Asn Thr Ile Glu Val Asp Ser Ala Ser Met Ile
50 55 60
Ala Gly Ile Ala Ala Leu Ala Asp Tyr Thr Arg Ile Asp Asp Ser Thr
65 70 75 80
Lys Thr Thr Ser Ser Ala Ala Ser Pro Thr Ser Pro Thr Ser Asn Thr
85 90 95
Pro Asp Asn Ile Asn Ser His Gly Ser Ser Ser His Glu Val Ser Ser
100 105 110
Trp Ser Trp Cys Gly Cys Ser Thr
115 120

<210> 30121
<211> 343
<212> PRT
<213> A.fumigatus

<400> 30121
Ala Asp Pro Ser Ser Pro Val Val Lys Thr His Pro Ser Val Ser Ser
1 5 10 15
Leu Leu Thr Pro Pro Ala Ser Thr Gln Ala Gly Glu Val Thr Ala Pro
20 25 30
Ser Thr Ala Ala Pro Ala Thr Thr Val Ser Ala Thr Ser Asp Val Thr
35 40 45
Pro Ser Tyr Gly Thr Ala Tyr Trp Gln Gly His Ser Gly Tyr Gly Ser
50 55 60
Thr Pro Gly Pro Arg Gln Pro Trp Thr Ala Gly Ser Asn Gln Ser Tyr
65 70 75 80
Pro Thr Arg Asp Ser Phe Ser Pro Ser Thr Leu Asn Pro Leu Ser Arg
85 90 95
Asn Gln Pro Thr Ser Pro Pro Val Thr Glu Gly Met Ala Gln Pro Tyr
100 105 110
Asp Met His His Leu Pro Pro Phe Gln Gln Ser Leu Ser Val Pro Pro
115 120 125
Ser Gly Leu Ser Thr Gly Thr Ala Pro His Pro Ala Met Thr His Ala
130 135 140
Met Leu Ala Ser Pro Thr Gly Leu Pro Asn Pro Gly Pro Ser Pro His
145 150 155 160
Leu Leu Pro Ser Asn Asp Pro Tyr Gly Pro Lys Ser Gln Pro Ala Pro
165 170 175
Val Tyr Gly Gly Ala Gln Gln Ile Pro Ser Pro His Gln Thr Ser Phe

```
            180                 185                 190
Pro Pro Tyr Gly Gln Pro Gly Leu Gly Ile His Pro Pro Gly Arg Val
        195                 200                 205
Ser Ser Thr Pro Thr Leu Ser Ala Thr Gly Pro Pro Pro His Leu Asn
    210                 215                 220
Tyr Ser Arg Gln Pro Trp Pro Ser Tyr Ser Leu Pro Ala Met Asn Gly
225                 230                 235                 240
Pro Val Met Thr Asn Ile His Ser Pro Asn Ser Gln Met Ser Leu Leu
                245                 250                 255
Gly Ser Met Gln Pro Gly Ile Leu Pro Gly Phe Asn Ser Gly His Val
            260                 265                 270
Ala Ser Met Gln Gln Met Tyr Gly Gly His Pro Pro His Pro Ile His
        275                 280                 285
Gln Pro Gly Pro Thr Asn Asp Arg Pro Phe Lys Cys Asp Gln Cys Pro
    290                 295                 300
Gln Ser Phe Asn Arg Asn His Asp Leu Lys Arg His Lys Arg Ile His
305                 310                 315                 320
Leu Ser Val Lys Pro Phe Pro Cys Thr His Cys Asp Lys Ser Phe Ser
                325                 330                 335
Arg Lys Asp Ala Leu Lys Val
            340
```

<210> 30122
<211> 117
<212> PRT
<213> A.fumigatus

<400> 30122

```
Leu Ser Lys Pro Lys Val His Pro Ile Asn Thr Thr Val Phe Asp Trp
1               5                   10                  15
Trp His Phe Asp Ala Val Ser Ala Ser Asn Pro Asn Ala Ser Gly Val
            20                  25                  30
Ile Thr Leu Phe Thr Asn Thr Pro Thr Ala Phe Pro Phe Leu Pro Gly
        35                  40                  45
Lys Ser Lys Ser Lys Ser Asn Thr Asp Ser Val Leu Ala Gly Leu Pro
    50                  55                  60
Leu Asp Leu Ile Ser Lys Trp Asp Arg Asp His Leu Arg Thr Leu Ser
65                  70                  75                  80
Arg Tyr Ile Pro Ser Asp Ser Arg Arg Ser Pro Arg Arg Tyr Pro Arg
                85                  90                  95
Asp Leu Ala Arg Glu Arg Arg Phe Leu Cys Trp Ile Arg Ala Arg Gly
            100                 105                 110
Val Ser Gly Tyr Asp
        115
```

<210> 30123
<211> 118
<212> PRT
<213> A.fumigatus

<400> 30123

```
Met Arg Gln Ser Pro Thr Leu Ala Ile Ser Ala Met Leu Pro Thr Leu
1               5                   10                  15
Arg Ala Val Cys Leu Gln Leu Leu Val Pro Val Tyr Leu Met Arg Glu
            20                  25                  30
Ala Arg Gln Phe Ser Ser Ala Thr Leu Tyr Val Val Lys Thr Gly Lys
```

```
        35                  40                  45
Arg His Met Arg Val Ile Asp Met Ser Leu Gln Glu Ser His Asn Ile
    50                  55                  60
Asp Thr Thr Cys Gly Asn Leu Ile Glu Pro Ala Lys Gln Ile Ser Asp
65                  70                  75                  80
Ala Cys Arg Leu Gly Asn Arg Tyr Thr Tyr Gly Tyr Val Ser Arg Thr
                85                  90                  95
Ile Val Asp Gly Ser Gln Ser Tyr Pro Tyr Leu Val Ala Ile Gly Asp
            100                 105                 110
Asp Tyr Ala Phe Glu Pro
        115
```

<210> 30124
<211> 119
<212> PRT
<213> A.fumigatus

<400> 30124

```
Phe Glu Gln Leu Arg Met Pro Leu Asp Thr Ser Thr Thr Tyr Pro Leu
1               5                   10                  15
Thr Lys Leu Arg Leu Asp Gly Arg Arg Trp Asn Glu Leu Arg Leu Leu
            20                  25                  30
Gln Ala Gln Ile Ser Thr Asn Pro Ala Ser Ser Gly Ser Ser Phe Leu
        35                  40                  45
Ser Met Gly Asn Thr Ser Ile Met Cys Ser Val His Gly Pro Ala Glu
    50                  55                  60
Gly Lys Arg Gly Asp Ala Thr Gly Gly Ala Ala Gly Ser Ala Gly Ala
65                  70                  75                  80
Val Val Glu Val Asp Val Asn Ile Ala Gly Phe Ala Gly Val Asp Arg
                85                  90                  95
Arg Arg Arg Ala Gly Gly Ser Asp Arg Tyr Ala Ala Leu Leu Leu Arg
            100                 105                 110
Phe Val Ser Leu Thr Thr Phe
        115
```

<210> 30125
<211> 280
<212> PRT
<213> A.fumigatus

<400> 30125

```
Leu Leu Ala Asn Leu Arg Asn Leu Cys Leu Asp Arg Asp Arg Glu Phe
1               5                   10                  15
Lys Ser Asp Pro Glu Pro Pro Leu Ser Thr Ser Asp His Glu Arg Ser
            20                  25                  30
Lys Ile Arg Gln Leu Pro Ser Pro Ser Asn Arg Asp Thr Ser Val Val
        35                  40                  45
His Leu Ala Asp Thr Glu Ser Gly Asp Asp Ser Phe Asn Asp Gly Glu
    50                  55                  60
Ala Ala Tyr Lys Gln Phe Lys Glu Arg Arg Ala Leu Lys Arg Lys Arg
65                  70                  75                  80
Ser Ser Ala Asn Leu Arg Lys Ser Lys Lys Thr Lys Val Ala Asn Pro
                85                  90                  95
Asp Ser Phe Val Gly Lys Arg Pro Lys Lys Glu Asn Glu Gln Ser Thr
            100                 105                 110
Arg Thr Arg Pro Ile Leu Arg Thr Tyr Gly Glu Glu Leu Pro Ser Asp
```

```
        115                 120                 125
Asp Glu Leu Met Glu Tyr Thr Leu Pro Asp Tyr Leu Gln Lys Arg Arg
    130                 135                 140
Thr Gln Phe Asp Arg Arg Met Asp His Leu Lys Gln Ser Gly Leu Lys
145                 150                 155                 160
Leu Pro Pro Asp Phe Asp Asp Val Glu Phe Ser Asp Asp Glu Arg Leu
                165                 170                 175
Glu Phe Leu Lys Glu Lys Pro Ala Phe Arg Asn Ile Glu Pro Cys Gly
            180                 185                 190
Lys Tyr Glu Asp Ile Thr Leu Pro Tyr Ser Leu Gly Leu Ile Pro Ala
        195                 200                 205
Pro Ile Ala Gln Trp Leu Arg Pro Tyr Gln Val Glu Gly Ala Ala Phe
    210                 215                 220
Leu His Glu Leu Phe Val Tyr Gln Lys Gly Gly Ile Leu Gly Asp Asp
225                 230                 235                 240
Met Gly Leu Gly Lys Thr Val Gln Val Ile Thr Phe Leu Thr Ala Ala
                245                 250                 255
Tyr Gly Lys Thr Gly Asp Glu Arg Asp Ala Lys Arg Met Arg Lys Met
            260                 265                 270
Arg Arg Ser Gly Arg Asp Gly Trp
        275                 280
```

<210> 30126
<211> 82
<212> PRT
<213> A.fumigatus

<400> 30126

```
Asn Ser Val Val Ser Leu Arg Leu Arg Ile Glu Val Val Val Val Val
1               5                   10                  15
Thr Tyr Val Ile Val Leu Ile Ile Tyr Ser Tyr Leu Val Ile Ile Cys
            20                  25                  30
Tyr Asn Thr Ser Asn Phe Ile Leu Ser Ser Leu Ile Tyr Tyr Phe Asn
        35                  40                  45
Ile Ile Thr Ser Leu Thr Phe Thr Tyr Ile Ala Tyr Leu Tyr Phe Tyr
    50                  55                  60
Leu Ile Phe Ile Thr Ser Ser Leu Tyr Lys Glu Leu Leu Leu Tyr Ile
65                  70                  75                  80
Ile Ser
```

<210> 30127
<211> 63
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (41)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30127

```
Ser Thr Tyr Arg Leu Ile Ile Leu Pro Phe Tyr Ile Lys Val Ser Phe
1               5                   10                  15
Ser Leu Ile Gly Ile Ala Phe Ser Arg Phe Tyr Tyr Pro Leu Ala Phe
            20                  25                  30
```

```
Phe Ile Lys Tyr Leu Ala Phe Tyr Xaa Leu Ser Lys Ser Tyr Tyr Tyr
        35                  40                  45
Ser Ser Phe Thr Phe Ser Ile Ile Leu Leu Asp Leu Val Ile Lys
    50                  55                  60
```

<210> 30128
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30128

```
Leu Val Ser Cys Asp Val Arg Gln Ile Tyr Phe Tyr Leu Gln Ala Pro
1               5                   10                  15
Leu Leu Arg Pro Pro Cys Gln His Ser Tyr Gln Gly Gly Val Ala Asp
            20                  25                  30
Met Ile Asn Lys Ile Pro Asn Gln Tyr Thr Thr Asn Asp Thr Asp Ala
        35                  40                  45
Tyr Thr Asp Gly Phe Asp Gly Asn Ala Gln Asn Thr Val Leu Phe Ile
    50                  55                  60
Met Asp Arg
65
```

<210> 30129
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30129

```
Glu Glu Asn Leu His Leu Leu Ala Cys Ala Pro Val Leu Ser Gln Ile
1               5                   10                  15
Val Ser Ala Arg Gly Arg Ser Val Val Leu Thr Ile Ser Leu Thr Ser
            20                  25                  30
Gly Thr Val Tyr Leu Arg Arg Arg Thr Glu Leu Thr Leu Asp Gln Gly
        35                  40                  45
Asp Cys Ala Asp Gly Ser His Ser Thr Arg Asn Thr Ser Arg
    50                  55                  60
```

<210> 30130
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30130

```
Arg Gln Pro Phe Phe Trp Glu Arg Asn Leu Lys Val Ile Cys Gly Val
1               5                   10                  15
Met Thr Leu Ile Phe Ile Gly Arg Ala Thr Tyr Gly Ala Gly Pro Ser
            20                  25                  30
Gln Val Arg Phe Thr Thr Gly Val Glu Pro Ser Arg Gly Ser Ile Arg
        35                  40                  45
Leu Val Thr Met Thr Gly Lys Tyr Ser Leu Ala Trp Ile Glu Leu Asn
    50                  55                  60
Arg Val Ser Asp His Glu Ser Ser
65                  70
```

<210> 30131
<211> 245

<212> PRT
<213> A.fumigatus

<400> 30131
Ser Ala Ser His Gly Val Leu Gln Trp Phe Val Pro Cys Pro Tyr Asp
1 5 10 15
Gly Ile Thr Leu Asn Met Gln Ala Asn Ser Phe Gln Val Leu Val Trp
20 25 30
Thr Gly Leu Ala Gly Gly Asp Gly Glu Tyr Cys Ala Ile Leu Val Ala
35 40 45
Ile Asn Ser Ile Leu Gln Met Val Leu Phe Ala Pro Leu Ala Ile Phe
50 55 60
Phe Ile Arg Val Ile Gly Asp Gly Asp Asp Gly Leu Thr Ile Glu Tyr
65 70 75 80
Ser Leu Ala Ala Lys Ser Val Gly Val Phe Leu Gly Ile Pro Leu Gly
85 90 95
Ala Ala Ile Val Thr Arg Phe Gly Leu Arg Phe Leu Ile Ser Asp Glu
100 105 110
Trp Tyr Asn Arg Thr Phe Val Lys Leu Ile Ser Pro Leu Ser Leu Ile
115 120 125
Gly Leu Leu Phe Thr Ile Leu Val Leu Phe Ala Ser Gln Gly Arg Gln
130 135 140
Val Val His Gln Ile Val Ser Val Val Arg Val Ala Ala Pro Leu Ile
145 150 155 160
Val Tyr Phe Ala Val Ile Phe Leu Ile Thr Leu Leu Val Thr Arg Arg
165 170 175
Leu Gly Phe Gly Tyr Lys Leu Ser Cys Thr Gln Ser Phe Thr Ala Ala
180 185 190
Ser Asn Asn Phe Glu Leu Ala Ile Ala Val Ala Ile Ala Thr Phe Gly
195 200 205
Val Asp Ser Asp Gln Ala Leu Ala Ala Thr Val Gly Pro Leu Val Glu
210 215 220
Val Pro Val Leu Leu Ala Leu Val Tyr Val Val Arg Trp Phe Ala Arg
225 230 235 240
Arg Gln Gln Trp Lys
245

<210> 30132
<211> 60
<212> PRT
<213> A.fumigatus

<400> 30132
Trp Leu Thr His Ser Ile Ala Ile Gly Leu Leu Val Met Met Tyr Pro
1 5 10 15
Ile Leu Cys Lys Val Arg Phe Glu Thr Leu His Arg Ser Phe Arg Glu
20 25 30
Lys Ala Leu Trp Ile Gln Val Ala Phe Ser Leu Val Val Asn Trp Ile
35 40 45
Ile Ala Pro Leu Phe Met Val Gly Arg Arg Leu Arg
50 55 60

<210> 30133
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30133
Arg Tyr Arg Pro Leu Phe Ser Phe Phe Ile Lys Ser Thr Ser Thr Ala
1 5 10 15
Ala Gly Leu Asp Asn Ser Leu Ile Tyr Pro Phe Leu Ser Ile Leu Ser
20 25 30
Arg Tyr Leu Cys Arg Ala Ser Ser Ser Ser Tyr Asn Ile Val Asn Arg
35 40 45
Gly Leu Tyr Ser Asn Asn Phe Leu Leu Ser Ser Tyr Ile Leu
50 55 60

<210> 30134
<211> 77
<212> PRT
<213> A.fumigatus

<400> 30134
Leu Val Glu Val Ile Lys Ser Pro Pro Asn Ile Tyr Ile Ile Arg Arg
1 5 10 15
Ile Met Leu Val Ser Lys Asp Tyr Thr Phe Pro Trp Arg Ser Ser Val
20 25 30
Asn Cys Ser Ile Ser Val Lys Phe His Cys Ala Val Asp Ala Ala Ala
35 40 45
Gly Arg Gln Asp Gln Pro Ser Cys Lys Asn Met Phe Ile Ser Met Thr
50 55 60
Ala Leu Ile Leu Thr Leu Thr Thr Thr Arg Val Trp His
65 70 75

<210> 30135
<211> 104
<212> PRT
<213> A.fumigatus

<400> 30135
Ser Ile Asp Glu Trp Thr Pro Gln Ser Arg Leu Gln Pro Ser Leu Gln
1 5 10 15
Asp Phe Ser Pro Cys Ser Phe Asn Val Ser Phe Ser Arg Ile Leu Glu
20 25 30
Lys Val Leu Ile Ser Ser Ile Thr Lys Gly Gly Gln Glu Ile Thr Leu
35 40 45
Ser Val Val Thr Gln Ile Pro Thr Gly Ser Asp Gln Ser Pro Ser Leu
50 55 60
Ser Ser Lys Ala Gln Ile Phe Lys Ser Ala Val Lys Ala Ala Lys His
65 70 75 80
Leu Val Pro Ser Gly Ile Arg Glu Ala Cys Gln Arg Phe Lys Gln Leu
85 90 95
Thr Gln Phe Phe Pro Ser Met Ser
100

<210> 30136
<211> 270
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE

<222> (1)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30136
Xaa Ser Gly Arg Arg Thr Val Cys Leu Pro Val Ser Tyr Gln Ser Ser
1 5 10 15
Lys Tyr Pro Tyr Met Ala Ala Thr Pro Phe Leu Gly Gln Ile Leu Lys
20 25 30
Gly Arg Arg Gly Leu Tyr Pro Leu Thr Lys Gln Leu Gln Asp Cys Val
35 40 45
Trp Leu Ala Met Leu Ser Leu Phe Gly Ile Leu Ser Leu Ser Ile Leu
50 55 60
Thr Ile His Ser Tyr Glu His Gln Glu Thr Val Ile Ala Lys Ser Val
65 70 75 80
Arg His Phe Arg Leu Gln Asn Glu Arg Asp Ile Leu Leu Arg Phe Gln
85 90 95
Asp Arg Thr Pro Cys Ile Arg Pro Leu Ile Glu Glu Leu Gly Asp Ser
100 105 110
Thr Val Pro Pro Thr Leu Ile Leu Lys His Leu Asp Asn Asp Ala Leu
115 120 125
Arg Ala Ser Asn Lys Gln Arg Leu Thr Arg Leu Glu Leu Lys Tyr Val
130 135 140
Ala Lys Arg Val Leu Glu Ala Leu Ser Val Leu His Asp Glu Gly Phe
145 150 155 160
Val His Thr Arg Met Leu Arg Leu Phe Arg Phe Ser Thr Leu Arg Val
165 170 175
Leu Leu Met Gly Arg Val Ile Asp Ile Lys Pro Ser Asn Val Leu Val
180 185 190
Asn Tyr Gly His Gly Asp Val Arg Phe Thr Asp Val Gln Leu Ala Asp
195 200 205
Phe Gly Ser Thr Val His Arg Asp Ser Pro Tyr Ala Gln His Gly Asp
210 215 220
Pro Ile Gly Thr Pro Ile Phe Arg Ser Pro Glu Ala His Leu Gln Met
225 230 235 240
Arg Trp Gly Thr Ala Thr Asp Ile Trp Ser Phe Gly Ala Met Ala Ser
245 250 255
Pro Asn Leu Thr Pro Glu Met Ser Asp Leu Asn His Asp Ile
260 265 270

<210> 30137
<211> 118
<212> PRT
<213> A.fumigatus

<400> 30137
Tyr Leu Ile Thr Ala Gln Leu Ile Ser Leu Leu Tyr Gly Asp Gly Phe
1 5 10 15
His Ile Phe Lys Pro Asp Val Pro Pro Asp His Asp Asp Tyr Asp Val
20 25 30
Met Ile Leu Met Lys His His Arg Cys Phe Gly Pro Phe Pro Glu Ser
35 40 45
Tyr Glu Gln Ile Ala Asp Ser Gln Arg Leu Ala Ile Leu Val Trp Ile
50 55 60
Met Gln Asn Ser Pro Pro Glu Lys Leu Arg Pro Phe His Leu Thr Ser
65 70 75 80
Thr Gln Glu Ile Cys Gln Glu Asp Lys Glu Phe Ile Leu Arg Thr Met

```
                85                  90                  95
Lys Leu Asp Pro Arg Asp Arg Pro Ser Ala Arg Gln Leu Leu Glu Asp
            100                 105                 110
Glu Trp Phe Arg His Ser
        115
```

<210> 30138
<211> 186
<212> PRT
<213> A.fumigatus

<400> 30138

```
Gln Gly Ile Glu Ser Val Phe Asn Ile His Val Ser Ser Cys Asp Ser
1               5                   10                  15
Arg Lys Lys Thr Leu Ala Leu Thr Val Ser Ile Ser Val Asn Pro Leu
            20                  25                  30
Tyr Tyr Val Thr Phe Thr Thr Ala Thr Leu Cys Ala Ser Phe Ile Leu
        35                  40                  45
Phe Lys Gly Phe Asn Thr Ser Asp Ala Val Asn Thr Ile Ser Leu Leu
    50                  55                  60
Cys Gly Phe Leu Thr Ile Phe Ser Gly Val Tyr Leu Leu Asn Leu Ser
65                  70                  75                  80
Arg His Asp Pro Asp Gly Arg His Leu Leu Ser Ser Lys Leu Asp Asp
                85                  90                  95
Glu Gly Val Pro Thr Asp Gly Ile Ala Ser Phe Gln Thr Arg Arg Ser
            100                 105                 110
Met Gln Ser Arg Arg Ser Asn Glu Pro His Arg Arg Ser Ser Ser Phe
        115                 120                 125
Ala Phe Met Asn Gly His Gly Asp Arg Glu Gly Leu Met His Ser Tyr
    130                 135                 140
Asp Val Glu Asn Gln Ala Phe Gly Leu Ser Glu Leu Thr Glu Glu Ser
145                 150                 155                 160
Asp Gly Glu Pro Gly Pro Thr Tyr Lys Arg Ser Asp Asp Ile Asp Arg
                165                 170                 175
Thr Thr Gln His Pro Asn Lys His Asp Glu
            180                 185
```

<210> 30139
<211> 145
<212> PRT
<213> A.fumigatus

<400> 30139

```
His Thr Gly Ile Pro Val Lys Leu Ser Cys Thr Pro Trp Val Val Ile
1               5                   10                  15
Ser Ser Val Ser Arg Leu Asp Val His Gln Ser Gly Ser Leu Pro Pro
            20                  25                  30
Gln Arg Ile Leu Ser Gly Asp Met Pro Gly Leu Leu Arg Lys Phe Val
        35                  40                  45
Ile Ile Ala Ala Val Asp Gly Leu Ile Leu Gln Pro His Gly Asn Gly
    50                  55                  60
Gly Arg Asn Ser Gly Asn Tyr Glu Pro Gln Ser Val Arg Ile Asp Tyr
65                  70                  75                  80
Lys Thr Asn Lys Ile Ser Pro Leu Pro Ala Pro Ala Ser Asp Pro Ala
                85                  90                  95
Val Arg Lys Glu Ala Gly Leu Glu Ala Tyr Gly Leu Val Gly Lys Leu
```

```
            100                 105                 110
Ala Ser Ser Ala Thr Val Ser Asp Ile Val Phe Ser Leu Cys Asn Ser
        115                 120                 125
Glu Tyr Thr Lys Phe Phe Pro Pro Gly Lys Ser Leu Val Phe Thr Pro
    130                 135                 140
Ala
145
```

<210> 30140
<211> 107
<212> PRT
<213> A.fumigatus

<400> 30140

```
Arg Trp Leu Thr Arg Val Thr Leu Ser Gly Phe Leu Ile Tyr Cys Leu
1               5                   10                  15
Ala Val Ala Ile Phe Ser Thr Val Met Ile Tyr Arg Val Ala Pro Val
            20                  25                  30
Tyr Gly Lys Lys Asn Pro Leu Ile Phe Ile Ser Ile Cys Ser Thr Val
        35                  40                  45
Gly Ser Val Ser Val Met Ser Val Lys Ala Phe Gly Ile Ala Leu Lys
    50                  55                  60
Leu Thr Phe Asn Gly Asn Asn Gln Phe Thr His Ala Ser Thr Tyr Val
65                  70                  75                  80
Phe Met Ile Val Thr Gly Phe Cys Ile Leu Thr Gln Met Asn Tyr Phe
                85                  90                  95
Asn Lys Ala Leu Asn Gln Phe Ser Thr Ser Met
            100                 105
```

<210> 30141
<211> 325
<212> PRT
<213> A.fumigatus

<400> 30141

```
Arg Thr Arg Tyr Leu Leu Gly Pro Gly Arg Asp Asp Ser Ala Asn Arg
1               5                   10                  15
Gly Val Phe Lys Tyr Gln Leu Arg Tyr Cys Pro Ala Leu Ala Asn Lys
            20                  25                  30
Pro Ser Gly Ala Pro Lys Ser Asp Lys Asp Arg Pro Gly Pro Lys Pro
        35                  40                  45
Asp Pro Phe Glu Asn Pro Ser Thr Asp Leu Leu Ile Ala Gln Ile Pro
    50                  55                  60
Gln Glu Asn Pro Lys Tyr Thr Leu Val Leu Asn Lys Phe Pro Val Ile
65                  70                  75                  80
Thr Asn His Phe Ile Leu Ala Thr Lys Thr Trp Lys Ser Gln Thr Asp
                85                  90                  95
Ile Leu Glu Lys Glu Asp Leu Asp Ala Ala Tyr Ala Cys Ile Lys Ala
            100                 105                 110
Trp Arg Asp Asn Gln Thr Glu Gln Gly Asp Ser Gly Ser Asn Arg Leu
        115                 120                 125
Phe Ala Phe Phe Asn Ser Gly Asp Glu Ser Gly Ala Ser Gln Pro His
    130                 135                 140
Arg His Leu Gln Phe Leu Pro Val Glu Asp Met Ser Gln Gly Asp Ser
145                 150                 155                 160
Gly Asn Trp Gln Pro Leu Ile Asp Thr Ile Ser Ser Gln Trp Val Cys
```

```
                165                 170                 175
Pro Asp Ser Glu Tyr Arg Arg Leu Ser Gln Ile Pro Phe Ala His Phe
            180                 185                 190
Ala Leu Pro Leu Pro Pro Asn Pro Thr Ala Asp Thr Leu His Ala Ile
        195                 200                 205
Tyr Leu Ser Leu Tyr Arg Val Ala Leu Trp Thr Ala Lys Gly Ser Leu
    210                 215                 220
Glu Asp His Ser Arg Val Thr Asp Gly Pro Ala Ala Ile Ser Tyr Asn
225                 230                 235                 240
Leu Ala Met Thr Glu Ser Met Met Met Ile Cys Pro Arg Arg Cys Glu
                245                 250                 255
Ala Ala Arg Ile Pro Val Asp Pro Ser Ala Leu Pro Asn Val Gln Glu
            260                 265                 270
Pro Gly Val Val Ala Leu Asn Gly Thr Ile Leu Ala Gly Thr Leu Met
        275                 280                 285
Val Lys Ala Glu Ala Glu Trp Asn Glu Leu Arg Arg Asn Pro Asp Thr
    290                 295                 300
Leu Ala Gly Ile Leu Ala Ser Val Gly Tyr Pro Gln Pro Asp Ser Cys
305                 310                 315                 320
Gly Leu Ala Leu Leu
                325
```

<210> 30142
<211> 77
<212> PRT
<213> A.fumigatus

<400> 30142

```
Asn Arg Thr Gly Ser Thr His Gly Tyr Asp Gln Arg Ser Thr Ile Ala
1               5                   10                  15
Trp Phe Ser Pro Thr Thr Phe Tyr Thr Val Lys Glu Trp Glu Asp Tyr
            20                  25                  30
Tyr Tyr Met His Ile Lys Asn Ser Met Ser Arg Trp Cys Glu Ile Ile
        35                  40                  45
Thr Tyr Tyr Tyr Thr Leu Ile Trp Leu Gly Tyr Cys Pro Phe Tyr Leu
    50                  55                  60
Gly Asn Lys Ser Leu Ser Leu Ser Asn Tyr Ile Arg Ser
65                  70                  75
```

<210> 30143
<211> 65
<212> PRT
<213> A.fumigatus

<400> 30143

```
Thr Lys Thr Thr Thr Thr Thr Ser Arg Ser Arg Trp Pro Lys Arg Met
1               5                   10                  15
Asp Cys Gln Gly Tyr Leu Arg Ile Pro Ala Gly Asn Thr Gly Ala Asp
            20                  25                  30
Gly Ala Pro Arg Leu Lys Tyr Thr Val Lys Trp Leu Gly Tyr Asp Asn
        35                  40                  45
Pro Thr Glu Asp Pro Ala His Tyr Leu Arg Glu Arg Thr Arg Asp Tyr
    50                  55                  60
Ser
65
```

<210> 30144
<211> 102
<212> PRT
<213> A.fumigatus

<400> 30144
Leu Val Trp Leu Asp Ala Arg Asn Ile Arg Thr Leu Arg Pro Gln Lys
1 5 10 15
Lys Leu Asn Trp Lys His Leu Gly Pro Phe Tyr Ile Lys Lys Ile Ile
20 25 30
Ser Pro His Ala Tyr Glu Leu Asp Leu Pro Ala Ser Met Lys Ile His
35 40 45
Pro Val Phe Asn Val Ser Leu Leu His Pro Val Ala Lys Asp Pro Val
50 55 60
Pro Arg Gln Arg Gln Pro Pro Pro Pro Val Glu Val Asp Gly Leu Lys
65 70 75 80
Glu Trp Ile Val Lys Asp Ile Leu Glu Phe Pro Leu Gly Thr Leu Gly
85 90 95
Pro Met Gly Pro Pro Val
100

<210> 30145
<211> 166
<212> PRT
<213> A.fumigatus

<400> 30145
Arg Ile Tyr Trp Gly His Lys Ser Leu Asn Ala Gly Arg Asn Lys Met
1 5 10 15
Tyr Tyr Tyr Tyr Tyr Gly His Asp Leu Ile Gln Asp Ser Phe Lys Thr
20 25 30
Pro Lys Thr Thr His Met Cys Tyr Ser Ala Thr Pro Ile Leu Leu Arg
35 40 45
Glu Met Cys Ser Glu Thr Tyr Ser Thr Ser Ser His Val Thr His Val
50 55 60
Asn Arg His Gln Ser Arg Ser Ser Leu Arg Val Gln Ile Ile Trp Ser
65 70 75 80
Met Arg Phe Leu Arg Leu Phe Val Val Cys Ala Val Ser His Ser His
85 90 95
Met Arg Arg Leu Arg Ala Ala Ala Ala Phe Phe Ser Lys Cys Asp Ser
100 105 110
Thr Ile Ile Gln Ile Asn Tyr Ser Tyr Gln Ile Ile His Thr Met Phe
115 120 125
Thr Thr Lys Asn Trp Leu Val Gly Lys Cys Phe Gly Gly Arg Gln Gly
130 135 140
Leu Leu Thr Leu Ser Trp Leu Arg Trp Leu Arg Glu Trp Tyr Ile Trp
145 150 155 160
Asn Arg Ser Ile Tyr Ala
165

<210> 30146
<211> 108
<212> PRT
<213> A.fumigatus

<400> 30146

```
Ser Lys Met Ala Gly Ser Lys Thr Glu Ser Ala Val Arg Phe Pro Glu
1               5                  10                  15
Lys Asp Ser Gln Thr Arg Arg Leu Arg Asn Gln Thr Thr Gln Asp Lys
            20                  25                  30
Lys Ala Val Ala Arg Met Gln Ala Glu Thr Ala Ser Ala Gln Ala Arg
        35                  40                  45
Val Ala Arg Ala Thr His Ala Gly Glu Glu Trp Thr Pro Val Glu Asn
    50                  55                  60
Phe Glu Thr Ala Met Asp Gln Asp Gly Asn Pro Val Pro Asp Pro Ala
65                  70                  75                  80
Tyr Thr Asp Tyr Glu Lys Met Arg Gln His Lys Gly Gly Glu Asp Glu
                85                  90                  95
Ala Asp Asp Tyr Val Ala Ala Asn Ala Asn Phe Asp
            100                 105
```

<210> 30147
<211> 791
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (723),(728)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30147

```
Cys Asn Arg Gly Glu Asp Ser Glu Pro Leu Ala Pro Gly Asp Leu Arg
1               5                  10                  15
Arg Asn Thr Val Phe Lys Met Arg Leu Glu Met Ser Gln Glu Thr Met
            20                  25                  30
Leu Arg Ile Pro Thr Arg Glu Pro Ser Lys Asp Trp Leu Trp Lys Gly
        35                  40                  45
Arg Ala Asp Ala Ile Arg Gly Ala Thr Lys Leu Lys Lys Gln Arg Lys
    50                  55                  60
Arg Arg Pro Ser Arg Pro Ala Glu Gly Asp Lys Ser Asn Leu Gly Pro
65                  70                  75                  80
Asp Ile Arg Pro Phe Gly Trp Leu Ser Leu Arg Val Ala Gly Asp Ser
                85                  90                  95
Thr Val Thr Tyr Ser Met Asp Met Val Ala Ser Thr Thr Lys Gly Phe
            100                 105                 110
Asn Asn Leu Leu Glu Leu Asp Leu Arg Asp Ser Arg Leu Ser Ser Ser
        115                 120                 125
Val Asn His Ala Leu Leu Trp Gln Cys Pro Arg Gln Leu Val Thr Cys
    130                 135                 140
Asp Leu Ser Asn Pro Leu Ser Trp Asn Asn Leu Arg Thr Trp Thr Phe
145                 150                 155                 160
Asp Val Glu Ser His Asn Met Glu Leu Phe Leu Leu Arg Asp His Ile
                165                 170                 175
Phe Leu Leu Thr Asp Leu Val Ser Asp Trp Ala Ser Gly Pro Pro Gln
            180                 185                 190
Glu Tyr Phe Thr Phe Val Pro Phe Thr Tyr Thr Leu Asn Leu Ser Phe
        195                 200                 205
Val Asp Phe Lys Leu Phe Val Asn Val Asn Asp Leu Asn Ile Ile Ser
    210                 215                 220
Asn Pro Ser Asp Leu Asp Asp Asn Arg Met Leu Val Ile Lys Gly Lys
225                 230                 235                 240
```

```
Lys Leu Ala Ser Asp Val Leu Ile Pro Leu Thr Thr Tyr Lys Pro Glu
                245                 250                 255
Gln Asn Ala Val Asn Phe Asn Val Tyr Leu Asp Ser Gly Gly Ile Asp
            260                 265                 270
Phe Leu Ser Pro Gln Trp Asp Thr Leu His Thr Phe Leu Gln Asp Gln
        275                 280                 285
Ser Ile Ala Thr Leu Asp Gly Leu Ser Leu Arg Gly Ser Tyr Asn Tyr
    290                 295                 300
Tyr Leu Ser Thr Ala Pro Asp Leu Thr Asp Thr Leu Leu Leu Ser Ile
305                 310                 315                 320
Asn Gly Val Ser Pro Lys Leu Tyr Leu Tyr Gly Phe Leu Ile Lys Ser
                325                 330                 335
Phe Met Thr Ile Arg Glu Asn Tyr Phe Gly Asp Glu Met His Phe Lys
            340                 345                 350
Thr Leu Glu Glu Phe Gln Glu Leu Ala Tyr Ser Glu Glu Arg Val Asn
        355                 360                 365
Phe His Asn Gly Ile Asn Pro Asn Arg Lys Ser Asn Asp Leu Asp Val
    370                 375                 380
Ile Val His Val Thr Val Asp Asp Ala Cys Ala Leu Leu Pro Glu Asn
385                 390                 395                 400
Met Tyr Asp Arg Leu Lys Cys Val Arg Leu Thr Thr Pro Ser Leu Glu
                405                 410                 415
Val Asp Leu Arg Phe Thr Asn Tyr Tyr Met Asp Leu Gln Phe Ser Ile
            420                 425                 430
Ser Pro Leu Arg Ala Ala Met Gln Val His Arg Val Glu Gly Pro Ala
        435                 440                 445
Ser Ile Ser Asn Thr Gln Leu Phe Ile Asp Gly Ala Phe Ile His Gly
    450                 455                 460
His Arg Leu Phe Gly Leu Pro Pro Ser Glu Pro Thr Tyr Val Cys Asn
465                 470                 475                 480
Trp Asp Phe Glu Val Gly Gln Ile Phe Gly Glu Cys Ser Ala Glu Phe
                485                 490                 495
Leu Gly Cys Leu Ala Ala Ala Leu Gln Ser Phe Asp Gln Ser Phe Asp
            500                 505                 510
Asn Glu Glu Asn Ala Leu Pro Pro Leu Val Pro Ile Ala Leu His Asp
        515                 520                 525
Val Thr Phe Leu Arg Ala Lys Ile Gln Pro Ile His Ile Ala Val Leu
    530                 535                 540
Ser Asp Gln Ala Ala Leu Ile Leu Ser Ser Gly Leu Ile Thr Thr Lys
545                 550                 555                 560
Phe Asn Asp Trp Ala Asn Ala Ser Phe Ser Lys Arg Met Ser Leu Leu
                565                 570                 575
Val Pro Asp Leu Ser Ile Ala Ala Val Asn Tyr Arg Asp Ile Asp Leu
            580                 585                 590
Lys Gly Ser Ser Ser Pro Ala Gly Val Ser Pro Leu Ala Leu Phe Gln
        595                 600                 605
Thr Thr Ile Lys Leu Arg Met Ala Gln Arg Arg Ala Asp Ile Asp Glu
    610                 615                 620
Asn Arg Lys Leu Gln Gln Glu His Ile Gly Val His Asp Gln Arg Thr
625                 630                 635                 640
Gln Arg Thr Pro Trp Leu Met Phe Asp Trp Glu Asp Ile Asp Pro Ser
                645                 650                 655
Ser Phe Arg Thr Pro Asn Asp Gln Leu Ala Pro Pro Thr Ile Ala Ile
            660                 665                 670
Pro Ser Met Pro Glu Pro Ile Ile Lys Gln Leu His Thr Leu Ser Ser
        675                 680                 685
```

```
Ala Asp Ser Leu Ser Asp Phe Lys Ser Gln Gln Ser Ser Lys Ser Phe
    690                 695                 700
Val Leu Thr Ser Asp Asn Ser Ser Phe Lys Ser Gly Arg Arg Arg Thr
705                 710                 715                 720
Thr Arg Xaa Met Ser Leu Pro Xaa Gln Pro Gln Ile Asp Lys Arg Ser
                725                 730                 735
Lys Asn Pro Asn Asn Arg Ile Asp Asp His Val Pro Lys Ile Ile Thr
            740                 745                 750
Tyr Arg Gln Ala Asn Glu Phe Pro Lys Tyr Pro Ser Leu Pro Asn Pro
        755                 760                 765
Ala Pro Asn Ser Ser Lys Cys Leu Asp Lys Cys Pro Lys Phe His Ala
    770                 775                 780
Ser Pro Lys Ile Ser Leu Lys
785                 790
```

<210> 30148
<211> 65
<212> PRT
<213> A.fumigatus

<400> 30148

```
Gly Phe Thr Ser Asn Leu Val Lys Val Ile Glu Thr Glu Cys Thr Ser
1               5                   10                  15
Leu Cys Gln Thr Ala Gly Val His Val Ala Asp Tyr Ser Cys Val Gln
            20                  25                  30
Glu Glu Lys Ser Lys Ala Lys Gln Ala Ile Asp Ser Lys Arg Arg Phe
        35                  40                  45
Ala Gly Gly Asn Glu Glu Ala Ser Asp Asn Leu Leu Leu Ser Asp Glu
    50                  55                  60
Ser
65
```

<210> 30149
<211> 146
<212> PRT
<213> A.fumigatus

<400> 30149

```
Ile Leu Lys Thr Phe Leu Trp Ser Ala Leu Ala Phe Asp Ser Thr Gly
1               5                   10                  15
Arg His Tyr Asp Gln Thr Gly Asn Tyr Thr Asp Trp Trp Asp Ala Lys
            20                  25                  30
Thr Val Gln Gly Phe Glu Asp Arg Ala Gln Cys Phe Val Asp Gln Tyr
        35                  40                  45
Ser Asn Phe Thr Val Leu Gly Glu Asn Gly Glu Pro Leu His Val Asn
    50                  55                  60
Gly Arg Leu Thr Leu Gly Glu Asn Ile Ala Asp Ala Gly Gly Ile Gly
65                  70                  75                  80
Ala Ala Phe Gln Ala Trp Lys Lys Arg Asp Glu Ala Ser Pro Asp Ala
                85                  90                  95
His Leu Pro Gly Leu Ser Asn Phe Ser Lys Glu Gln Leu Phe Phe Ile
            100                 105                 110
Ala Tyr Gly Asn Trp Trp Cys Ala Lys Thr Thr Lys Glu Ala Ala Ile
        115                 120                 125
Gln Ala Ile Tyr Thr Asp Pro His Ala Pro Lys Phe Ala Arg Ile Ile
    130                 135                 140
```

Val Ser
145

<210> 30150
<211> 320
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (83),(106)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30150
Ile Met Pro Pro Val Pro Gly Arg Pro Glu His Arg Arg Val Ile Cys
1 5 10 15
Tyr His Gln Thr Leu Cys Pro Asn Arg Gly Asp Tyr Val Ser Val Leu
20 25 30
Pro Leu Val Lys Asn Asn Thr Gly Val Thr His Ile Ile Ile Ala Ala
35 40 45
Phe His Leu Asn Glu Asp Pro Gly His Ile Thr Leu Asn Asp Asp Pro
50 55 60
Pro Asp His Glu Met Tyr Asn Pro Leu Trp Ala Glu Val Pro Val Leu
65 70 75 80
Lys Arg Xaa Gly Val Lys Val Met Gly Met Leu Gly Gly Ala Ala Gln
85 90 95
Gly Ser Tyr Arg Cys Leu Asp Gly Asp Xaa Glu Lys Phe Glu Arg Tyr
100 105 110
Tyr Gln Pro Leu Leu Ala Met Val Arg Arg His Gln Leu Asp Gly Leu
115 120 125
Asp Leu Asp Val Lys Lys Glu Met Ser Leu Pro Gly Ile Ile Arg Leu
130 135 140
Ile Asp Arg Leu Lys Leu Asp Leu Gly Asp Asp Phe Ile Ile Thr Leu
145 150 155 160
Ala Pro Val Ala Ala Ala Leu Leu Gly Ile Gly Asn Leu Ser Gly Phe
165 170 175
Asp Tyr Arg Gln Leu Glu Gln Gln Arg Gly Ser Lys Ile Ser Trp Tyr
180 185 190
Asn Ala Gln Phe Tyr Asn Gly Trp Gly Leu Ala Glu Asp Pro Arg Met
195 200 205
Tyr Ala Ala Ile Val Ala Gln Gly Trp Ser Pro Gln Arg Val Val Tyr
210 215 220
Gly Leu Leu Thr Asn Pro Gly Asn Gly Ser Gln Gly Tyr Val Pro Arg
225 230 235 240
Glu Arg Ile Gly Pro Val Leu Ala Val Leu Val Glu Gln Phe Pro Asn
245 250 255
Phe Gly Gly Val Met Gly Trp Glu Tyr Phe Asn Ser Ile Pro Gly Glu
260 265 270
Gln Gln Ser Pro Trp Gln Trp Ala Ala Glu Met Ser Leu Ser Met His
275 280 285
Met Lys Asp Val Leu Ala Ala Ala Arg Gln Met Leu Thr Ala Gly Pro
290 295 300
Met Ala Asn Ser Leu Met Asn Val Leu Arg Asp Met Met His Gln Pro
305 310 315 320

<210> 30151

<211> 223
<212> PRT
<213> A.fumigatus

<400> 30151
Ile Gln Val Asn Val Tyr Tyr Ile His Ser Pro Asp Arg Gln Ile Pro
1 5 10 15
Leu Glu Glu Thr Leu Ala Gly Ile Asn Glu Leu His Lys Ala Gly Lys
20 25 30
Phe Lys His Phe Gly Leu Ser Asn Phe Arg Pro Glu Glu Val Gln Glu
35 40 45
Val Val Arg Ile Ala Lys Glu Lys Gly Tyr Val Leu Pro Ser Val Tyr
50 55 60
Gln Gly Asn Tyr Asn Ala Val Ala Arg Arg Ile Glu Ala Glu Leu Leu
65 70 75 80
Pro Val Leu Arg Glu Asn Asn Ile Arg Phe Tyr Ala Tyr Ser Pro Ile
85 90 95
Ala Gly Gly Phe Leu Thr Lys Thr Lys Glu Gln Leu Leu Ala Gly Gly
100 105 110
Glu Gly Arg Trp Asp Pro Asn Ser Ala Ile Gly Gln Ile Tyr His Arg
115 120 125
Leu Tyr Asn Lys Pro Ala Met Leu Glu Val Leu Asp Asp Trp Ala Glu
130 135 140
Ile Ala Lys Ala Glu Gly Val Thr Lys Ala Glu Leu Ala Tyr Arg Trp
145 150 155 160
Ile Phe Phe His Ser His Ile Arg Glu Asp Leu Gly Asp Ala Val Ile
165 170 175
Val Gly Ala Thr Lys Ile Ser Gln Phe Glu Glu Thr Ile Ala Ala Ile
180 185 190
Gln Arg Gly Pro Leu Ser Ala Asp Ala Val Lys Arg Ile Asp Ala Val
195 200 205
Trp Glu Lys Ile Lys Asp Val Ala Thr Leu Asp Asn Phe Asn Ala
210 215 220

<210> 30152
<211> 80
<212> PRT
<213> A.fumigatus

<400> 30152
Ala Ser Thr Cys Asp Lys Arg Leu Thr Tyr Lys Pro Leu Gln Phe Gln
1 5 10 15
Gly Thr Ser Cys Leu Trp Thr Thr Glu Thr Asn Leu Asp Ser Val Arg
20 25 30
Ile Tyr Phe Ile Gln Asn Val Asn Asn Tyr Ser Asp Val Asp Ala Lys
35 40 45
Leu Ser Ser Val Ser Ser Gly Leu Asn Pro Leu Ile Phe Thr Pro Cys
50 55 60
Gly Ser Ile Ala Gly Leu Ser Leu Arg Ser Thr Phe Arg Leu Ile Val
65 70 75 80

<210> 30153
<211> 117
<212> PRT
<213> A.fumigatus

<400> 30153
Cys Thr Pro Gly Glu Asp Leu Ala Ile Leu Leu Leu Ala Arg Lys Phe
1 5 10 15
Gly Val Pro Ile Val Pro His Ser Gly Gly Val Gly Leu Pro Glu Tyr
20 25 30
Thr Gln His Leu Ser Thr Ile Asp Tyr Val Val Val Ser Gly Lys Lys
35 40 45
Ser Val Leu Glu Tyr Val Asp His Leu His Glu His Phe Val His Pro
50 55 60
Ser Ser Val Lys Asp Gly Tyr Tyr Val Thr Pro Met Glu Pro Gly Tyr
65 70 75 80
Ser Val Glu Met Lys Pro Glu Ser Met Asp Ala Phe Ala Phe Pro Gly
85 90 95
Glu Glu Gly Lys Ser Trp Trp Arg Thr Glu Ala Ala Lys Ala Ile Leu
100 105 110
Glu Gly Pro Arg Ile
115

<210> 30154
<211> 205
<212> PRT
<213> A.fumigatus

<400> 30154
Pro Arg Phe Ser Asp Thr Phe Ala Val Lys Glu Ala Pro Ser Leu Met
1 5 10 15
Gln Thr Ile Gly Arg Phe Leu His Tyr Arg Arg Glu Pro Asp Asn Lys
20 25 30
His Val Tyr Met Ile Arg Asp Pro Pro Arg Ile Lys Asn Ala Leu Ala
35 40 45
Ile Gly Val His Gly Tyr Phe Pro Ala Pro Leu Ile Arg Thr Val Leu
50 55 60
Gly Gln Pro Thr Gly Thr Ser Val Arg Phe Ala Thr Met Ala Ala Glu
65 70 75 80
Ala Ile His Lys Trp Thr Glu Ser His Gly Tyr Ala Cys Asp Val Glu
85 90 95
Lys Ile Ala Leu Glu Gly Glu Gly Arg Ile Ala Glu Arg Val Asp Leu
100 105 110
Leu Trp Lys Leu Leu Leu Asn Trp Val Glu Lys Ile Arg Lys Ala Asp
115 120 125
Phe Ile Leu Val Ala Cys His Ser Gln Gly Val Pro Val Ala Ile Met
130 135 140
Leu Val Ala Lys Leu Ile Ala Phe Gly Cys Leu Asn Ala Thr Arg Val
145 150 155 160
Gly Val Cys Ala Met Ala Gly Val Asn Met Gly Pro Phe Ser Asp Tyr
165 170 175
Arg Ser Arg Trp Ile Ser Gly Ser Ala Gly Glu Leu Phe Glu Phe Ala
180 185 190
Leu Pro Tyr Ser Gln Phe Ser Lys Ile Met Lys Val Gln
195 200 205

<210> 30155
<211> 89
<212> PRT
<213> A.fumigatus

<400> 30155
Arg Ser Phe Leu Arg Leu Ala Ile Glu Phe Ala Leu Glu Thr Thr Asn
1 5 10 15
Val Ser Asn Ala Ala Leu Asp Val Arg Arg Ser His Pro Ser Pro Ala
20 25 30
Asn Pro Tyr Ile Leu Pro Phe Ala Met Arg Gly Ile Leu Glu Glu Glu
35 40 45
Tyr Val Arg Arg Glu Leu Tyr Glu Glu Thr Met Gln Leu Leu Arg Gln
50 55 60
Tyr Asp Asp Trp Lys Pro Ser Ser Lys Val Leu Lys Asp Val Lys Phe
65 70 75 80
Arg Leu Glu Gly Ile Arg Ser Lys Leu
85

<210> 30156
<211> 151
<212> PRT
<213> A.fumigatus

<400> 30156
Glu Lys Val Ile Ser Tyr Leu Lys Ile Tyr Leu Ile Thr Gly Ile Gly
1 5 10 15
Thr Met Phe Phe Ile Gly Ile Leu Leu Pro Tyr Asn Asp Lys Arg Leu
20 25 30
Leu Gly Ser Ser Ser Asn Ala Ala Ser Ser Pro Leu Thr Ile Ala Leu
35 40 45
Thr Asp Ala Gly Ile Leu Pro Ala Ala His Leu Ile Asn Ala Leu Ile
50 55 60
Val Ile Ser Val Ile Ser Ala Gly Asn Gly Ser Leu Tyr Val Ala Ser
65 70 75 80
Arg Thr Leu Leu Phe Met Ala Arg Asn Gly Lys Ala Pro Arg Phe Ile
85 90 95
Gly Arg Thr Asn Gly Ala Gly Val Pro Trp Val Ala Leu Ile Phe Ser
100 105 110
Asn Leu Phe Thr Cys Ile Val Phe Leu Thr Gln Ser Ser Gly Ala Gly
115 120 125
Lys Ile Tyr Ser Ala Leu Ile Thr Leu Ser Gly Gly Glu Leu Ala Ser
130 135 140
Arg Pro Pro Ile Leu Val Cys
145 150

<210> 30157
<211> 140
<212> PRT
<213> A.fumigatus

<400> 30157
Arg Val Thr Val Ala Thr Phe Ile Val Trp Ala Val Ile Gly Ile Cys
1 5 10 15
His Ile Arg Phe Arg Arg Ala Leu Val Val Gln Gly Glu Asp Pro Ala
20 25 30
Lys Leu Pro Phe Lys Ala Trp Leu Tyr Pro Trp Gly Thr Tyr Phe Ser
35 40 45
Val Ala Leu Asn Ile Phe Leu Val Phe Phe Gln Gly Tyr Thr Ala Phe
50 55 60
Leu Asn Pro Phe Ser Ala Asp Asp Phe Val Ile Asn Tyr Ile Leu Leu

65 70 75 80
Pro Val Phe Ala Leu Phe Val Leu Gly Tyr Lys Phe Trp His Lys Thr
85 90 95
Arg Trp Val Lys Leu Glu Glu Met Asp Ile Trp Thr Gly Arg Arg Lys
100 105 110
Ser Pro Asp Val Asp Val Thr Asp Glu Pro Pro Val Lys Lys Gln Lys
115 120 125
Ser Trp Trp Ala Arg Val Leu Ala Val Val Ile Gly
130 135 140

<210> 30158
<211> 715
<212> PRT
<213> A.fumigatus

<400> 30158
Arg Arg Glu Met Glu Arg Arg Leu Ala Tyr Leu Lys Arg Leu Arg Asp
1 5 10 15
Gln Asp Ile Ser Ser Glu Gln Ala Ser Asp Glu Lys Ala Lys Ser Gln
20 25 30
Lys Phe Ile Leu Ile Thr Pro Glu Met Val His Gln Ser Pro Gln Asn
35 40 45
Ala Ser Pro Lys Val Lys Glu Val Leu His Ala Ala His Asp Ala Glu
50 55 60
Tyr Asp Asn Ala Leu His His Tyr Gln Thr Gln Lys Arg Gln Trp Glu
65 70 75 80
Ala Tyr Ile Ser Gly Ala Ser Ser Leu Phe Asp Pro Tyr Ala His Gln
85 90 95
Asn Ile Val Val Leu Phe Ser Leu Val Cys Thr Thr Thr Ser Ile Pro
100 105 110
Cys Ser Gly Pro Asp Leu Phe Ala Leu Glu Tyr Tyr Asn Glu His Gly
115 120 125
Asp Asp Thr Ile Phe Glu Pro Asp Cys Thr Ile Gly Gln Tyr Val Glu
130 135 140
Asp Ile Cys Gln Asn Ala Asn Ala Ile Cys Thr Ala Asn Gly Cys Glu
145 150 155 160
Lys Arg Met Phe Glu His His Arg Gln Tyr Val His Gly Glu Ala Gln
165 170 175
Ile Ser Val Phe Val Gln Pro Tyr Pro Ser Lys Leu Arg Gly Leu Gln
180 185 190
Asp Thr Ile Leu Met Trp Ser Cys Cys Lys Val Cys Gly Asn Glu Thr
195 200 205
Gln Val Phe Pro Met Ser Asp Ser Thr Trp Lys Tyr Ser Phe Gly Lys
210 215 220
Tyr Leu Glu Leu Ser Phe Tyr Ser Lys Asn Leu His Ala Arg Ala Gly
225 230 235 240
Val Cys Pro His Asp Leu Gln Arg Asp His Leu Arg Phe Phe Gly Tyr
245 250 255
Lys Asp Ile Ala Leu Arg Ile His Tyr Asp Thr Ile Asn Leu Leu Glu
260 265 270
Ile Ile Val Pro Arg Thr Arg Val Thr Trp Lys Val Asp Asn Asp Leu
275 280 285
Lys Leu Arg Asn Glu Val Tyr Leu Lys Ile Glu Gln Arg Leu Asn Arg
290 295 300
Phe Met Gly Ser Val Lys Ala Arg Leu Lys Gly Ile Asn Val Asp Ser
305 310 315 320

```
Val Val Pro Lys Leu Ala Glu Ala Cys Lys Ala Glu Ile Glu Val Leu
                325                 330                 335
Thr Arg Lys Ala Asn Glu Asp His Ala Ala Leu Ile Lys Gln Leu Gln
            340                 345                 350
Asp Lys Tyr Ile Ser Ser Arg Tyr Trp Glu Val Thr Pro Leu Asn Glu
        355                 360                 365
Val Leu Arg Ser Val Gln Glu Lys Val Val Glu Trp Asp Thr Ala Phe
    370                 375                 380
Ala Asp Phe Glu Lys Asn Phe Phe Pro Ser Glu Lys Asp Ile Arg Arg
385                 390                 395                 400
Leu Ala Thr Leu Gln Leu Lys Lys Ile Phe Leu Asp Lys Asp Ser Ser
                405                 410                 415
Val Thr Ser Leu Thr Ser Ser Glu Glu Pro Pro Thr Thr Pro Thr Glu
            420                 425                 430
Ala Glu Ser Gly His Asp Gln Met Thr Glu His Pro Arg Pro Met Arg
        435                 440                 445
Arg Met Thr Leu Ser Pro Glu Lys Ala Gln Asp Val Leu Val Ser Val
    450                 455                 460
Val Glu Glu Asp Ser Ser Glu Lys Asn Ala His Glu Ala Thr Leu Tyr
465                 470                 475                 480
Lys Asp Glu Val Pro Leu Pro Ser Ser Pro Ser Pro Glu Glu Thr Glu
                485                 490                 495
Thr Ser Ile Pro Pro Ala Ala Glu Pro Asp Glu Pro Glu Gly Ser Gln
            500                 505                 510
Ser Pro Glu Ser Thr Ala Gln Ser Ala Met Pro Glu Gln Val Pro Pro
        515                 520                 525
Ser Thr Thr Pro Ser Ala Ser Ser Leu Gly Thr Ser Gly Ala Thr Ser
    530                 535                 540
Asp Ala Ala Glu Ser Gly Lys Val Ser Pro Glu His Pro Pro Thr Glu
545                 550                 555                 560
Gln Gly Asp Ser Gln Arg Gln Asn Leu Asp Thr Glu Ser Gln Thr Pro
                565                 570                 575
Ser Ser Met Leu Lys Gln Pro Thr Pro Ser Gly Ile Pro Arg Leu Ala
            580                 585                 590
Glu Gly Val Val Arg Arg Thr Gly Lys Ala Thr Ser Pro Pro Leu Leu
        595                 600                 605
Arg Ala Gln Ser Gln Pro Leu Gln Gly Gln Arg Asp Arg Val Lys Met
    610                 615                 620
Ser Val Pro Leu Arg Gly Phe Arg Val Gly Ala Ala Gly Ala Gly Gly
625                 630                 635                 640
Leu Asp Asn Ile Ser Ser Pro Thr Pro Glu Ser Lys Phe Arg Pro Ser
                645                 650                 655
Asp Arg Lys Phe Ser Asp Arg Phe Gly Leu Thr Ala Leu Arg Asn Ser
            660                 665                 670
Arg Leu Thr Pro Gly Pro Ser Leu Ile Pro Arg Ser Val Pro Ser Arg
        675                 680                 685
Lys Asn Asn Thr Arg Val Ser Asn Leu Ala Lys His Leu Glu Gln Phe
    690                 695                 700
Phe Tyr Lys Pro Ala Ala Gly Ser Thr Ser Gly
705                 710                 715

<210> 30159
<211> 158
<212> PRT
<213> A.fumigatus
```

<400> 30159
Ile Phe Pro Ser His Arg Trp Arg Ser Pro Asn Leu Arg Thr Arg Arg
1 5 10 15
Thr Ser Arg Leu Ser Thr Ala Arg Pro Pro Ser Ser Cys Ser Thr Arg
20 25 30
Ala Pro Ile Ala Pro Ser Pro Arg Arg Ser Thr Leu Pro Ser Trp Asp
35 40 45
Pro Pro Ser Phe Asn Pro Ser Ser Arg Thr Ser Pro Ala Pro Asn Pro
50 55 60
Pro Lys Ser Ala Gly Arg Ser Ser Pro Pro Ala Ser Pro Ser Pro Arg
65 70 75 80
Thr Gly Thr Ser Ala Pro Pro Thr Pro Gly Ala Gly Ser Cys Thr Asn
85 90 95
Val Ala Pro Ser Ser Lys Pro Cys Gly Val Leu Ser Ala Ser Ser Ala
100 105 110
Ser Ala Ser Ser Phe Ser Ala Val Thr Ala Thr Ser Ser Gly Pro Pro
115 120 125
Ala Ser Leu Thr Arg Cys Trp Ile Thr Pro Ala Arg Ile Ser Ser Arg
130 135 140
Thr Arg Arg Glu Lys Ala Ser Thr Ser Ser Ala Ser Ala Arg
145 150 155

<210> 30160
<211> 332
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (14)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30160
Phe Glu Lys Glu Thr Pro Pro His Leu Ile Pro Ala Ala Xaa Asn Gln
1 5 10 15
Ile Phe His Tyr His Val Ser Val Asn Leu Pro Ile Pro Pro Met Ala
20 25 30
Phe Ala Lys Pro Glu Asn Thr Thr Tyr Phe Ser Phe Ile His Gly Pro
35 40 45
Ala Ser Phe Phe Met Leu Asp Thr Arg Thr Tyr Arg Ser Glu Pro Ala
50 55 60
Gln Val Asn Ser Thr Ile Leu Gly Ser Ala Gln Leu Gln Ser Leu Leu
65 70 75 80
Ala Tyr Leu Ala Arg Pro Glu Ser Ala Glu Val Arg Trp Lys Ile Val
85 90 95
Ala Ser Ser Val Pro Phe Thr Lys Asn Trp His Val Gly Thr Thr Asp
100 105 110
Thr Trp Gly Gly Phe Leu His Glu Arg Arg Thr Val Phe Glu Ala Met
115 120 125
Trp Arg Ala Glu Arg Glu Leu Gly Val Arg Val Val Leu Leu Ser Gly
130 135 140
Asp Arg His Glu Phe Gly Ala Thr Arg Phe Pro Asp Pro Met Leu Asp
145 150 155 160
Tyr Thr Ser Glu Asp Leu Leu Ala His Thr Ala Gly Glu Gly Val His
165 170 175
Glu Phe Ser Val Gly Pro Leu Asn Met Phe Tyr Leu Pro Ile Arg Thr

```
            180                 185                 190
Tyr Arg Gln Thr Asp Thr Glu Asp Val Ala Val Lys Tyr Val Pro Asp
        195                 200                 205
Gly Asn Val Lys Tyr Gly Leu Val Asp Ile Ser Ile Gln Asp Glu Gln
    210                 215                 220
Ile Asp Thr Ala Ser Gly Thr Pro Val Thr Val Pro Ser Ser Val Leu
225                 230                 235                 240
Thr Tyr Thr Leu Tyr Val Glu Asp Gln Val Val Trp Lys Tyr Lys Leu
                245                 250                 255
Ser Val Pro Leu Pro Glu Tyr Asp Ser Met Met Ala Ala Ser Ser Ala
            260                 265                 270
Lys His Pro Arg Leu Arg Pro Gly Lys Val Leu Ile Asp Asn Arg Lys
        275                 280                 285
Ala Glu Gly Trp His Ala Ala Ile Gln Thr Met Val Gly Arg Leu Glu
    290                 295                 300
Glu Ala Ala Arg Gln Phe Ala His Arg Ala Val Asp Glu Phe Tyr Glu
305                 310                 315                 320
Leu Leu Asp Lys Thr Glu Arg Ala Glu Arg Leu Asp
                325                 330
```

<210> 30161
<211> 125
<212> PRT
<213> A.fumigatus

<400> 30161

```
Gln Pro Ser Arg Met Val Arg Ile Ala Cys Gly Ser Gly Thr Thr Val
1               5                   10                  15
Arg Glu Val Glu Asp Leu Leu Ser Gln His Arg Met Met Ala Gly Met
            20                  25                  30
Ala Lys Arg Val Gly Gly Gln Lys Lys Gln Met Gln Arg Ala Gln Asn
        35                  40                  45
Met Leu Lys Gly Gly Asn Lys Glu Gln Gln Leu Ala Ala Met Gln Lys
    50                  55                  60
Arg Met Ala Ala Met Gly Gly Ala Gly Ala Gly Gly Leu Pro Gly Met
65                  70                  75                  80
Gly Asp Met Ala Lys Met Met Gln Met Leu Gln Gly Gln Gly Gly Gly
                85                  90                  95
Gly Met Pro Gly Phe Gly Gly Met Asp Leu Gln Ser Met Met Ser Gln
            100                 105                 110
Met Ser Gly Leu Met Gly Gly Gly Arg Gly Arg Gly Arg
        115                 120                 125
```

<210> 30162
<211> 152
<212> PRT
<213> A.fumigatus

<400> 30162

```
Leu Val Leu Met Arg Met Thr Arg His Ala Ala Ser Thr Thr Ser Gln
1               5                   10                  15
Ala Asp Ala Ser Lys Ile Leu Ala Gln Gln Arg Leu Asn Arg Pro Val
            20                  25                  30
Ser Pro His Leu Ser Ile Tyr Arg Pro Gln Ile Thr Trp Ile Gly Ser
        35                  40                  45
Ser Ala His Arg Ile Thr Gly Ile Ala Leu Ser Gly Ser Leu Tyr Leu
```

```
    50                  55                  60
Phe Ala Thr Ala Tyr Leu Ala Ala Pro Leu Phe Gly Trp His Leu Glu
65                  70                  75                  80
Ser Ala Ser Ile Ala Ala Ala Phe Gly Ala Leu Pro Ile Ala Ala Lys
                85                  90                  95
Val Leu Ile Lys Gly Thr Ala Ala Phe Pro Phe Val Tyr His Cys Leu
            100                 105                 110
Asn Gly Val Arg His Leu Val Trp Asp Leu Gly Arg Gly Ile Ser Asn
        115                 120                 125
Gln Gln Val Ile Lys Ser Gly Trp Thr Val Val Gly Leu Thr Val Val
    130                 135                 140
Ser Ala Leu Thr Leu Ala Leu Leu
145                 150

<210> 30163
<211> 61
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (11),(23)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30163
His Lys Trp Ala Cys Ser Ser Val Val Val Xaa Leu Ala Leu His Leu
1               5                   10                  15
Ile Lys Val Gln Val Leu Xaa Leu Tyr Met Arg Asn Val Arg Gly Ser
            20                  25                  30
Ile Pro Arg Glu Ser Ile Phe Cys His Ala Tyr Phe Cys Leu Gly Leu
        35                  40                  45
Phe Ser Thr Phe Phe Phe Val Trp Phe Gly Ala Ile Trp
    50                  55                  60

<210> 30164
<211> 133
<212> PRT
<213> A.fumigatus

<400> 30164
Gln Glu Cys Val Gly Arg Thr Leu Ser Tyr Pro Ser Lys Leu Pro Trp
1               5                   10                  15
Glu Phe Thr Ser Glu Asn Pro Ile Arg Ser Val Phe Pro Leu Trp Pro
            20                  25                  30
Val Tyr Ser Leu Pro Met Gly Leu Leu Lys Trp Phe Tyr Val Glu Leu
        35                  40                  45
Glu Ile Gly Asn Pro Ser Pro Glu Val Ala Tyr Tyr Ser Leu Arg Ala
    50                  55                  60
Val Met Phe Leu Leu Ser Phe Val Leu Glu Asp Trp Ala Ile Tyr Glu
65                  70                  75                  80
Leu Val Pro Leu Pro Arg His Arg Arg Ala Ala Val Val Leu Val Ala
                85                  90                  95
Ser Ser Tyr Val Thr Trp Thr Tyr Gln Thr His Thr Phe Ser Asn Ser
            100                 105                 110
Leu Glu Thr Leu Leu Val Thr Trp Gly Leu Val Leu Ile Arg Arg Ile
        115                 120                 125
```

```
Ala Gly Gln Lys Val
    130

<210> 30165
<211> 146
<212> PRT
<213> A.fumigatus

<400> 30165
Asp Asp Ile Ser Asp Asp Glu Met Val Arg Cys Cys Lys Asn Ala Asn
1               5                  10                  15
Ile Tyr Asp Phe Ile Val Ser Leu Pro Asn Gly Phe Asp Thr Leu Val
            20                  25                  30
Gly Ser Lys Gly Asn Met Leu Ser Gly Gly Gln Lys Gln Arg Leu Ala
        35                  40                  45
Ile Ala Arg Ala Leu Leu Arg Asn Pro Arg Ile Leu Leu Leu Asp Glu
    50                  55                  60
Ala Thr Ser Ala Leu Asp Leu Glu Ser Glu Lys Leu Val Gln Ala Ala
65                  70                  75                  80
Leu Asp Thr Ala Ala His Gly Arg Thr Thr Ile Ala Val Ala His Arg
                85                  90                  95
Leu Ser Thr Val Gln Lys Ala Gly Met Ile Cys Val Phe Asn His Gly
            100                 105                 110
Arg Ile Ile Glu Ser Gly Thr His Ser Glu Leu Met Gln Lys Arg Ser
        115                 120                 125
Ala Tyr Phe Ser Leu Ser Ala Ser Arg Leu Trp Ala Glu Cys Asp Ser
    130                 135                 140
Ser Pro
145

<210> 30166
<211> 61
<212> PRT
<213> A.fumigatus

<400> 30166
Thr Asp Asp Ser Thr Leu Leu Arg Arg Lys Cys Ala Phe Phe Leu Val
1               5                  10                  15
Leu Tyr Phe Arg His Gly Leu Lys Ile Met Ala Asp Gly Ile Asp Ser
            20                  25                  30
Lys Arg Ile Glu Gly Gln Ile Lys Glu Ala Gln Glu Lys Ala Glu Lys
        35                  40                  45
Lys Arg Ala Glu Val Arg Asn Ser Ser Lys Lys Leu Ser
    50                  55                  60

<210> 30167
<211> 176
<212> PRT
<213> A.fumigatus

<400> 30167
Phe Gly Arg Cys Ser Pro Phe Cys His Tyr Arg Asn Tyr Gln His Phe
1               5                  10                  15
Val Ser Pro Pro Thr Pro Leu Thr Leu Arg Asp Ser Ile Ala Lys Val
            20                  25                  30
Ile Ile Asn Leu Gly Arg Arg Ile Arg Lys Ala Leu Trp Gln Thr Arg
```

```
        35                  40                  45
Arg Ser Ser Phe Arg Leu Ser Leu Met Ser Ile Ser Ser Tyr Lys Pro
    50                  55                  60
Val Cys Asp Pro Gly Ser Gln His Pro Lys Gln Phe Asn Gln Leu His
65                  70                  75                  80
Gly Ile Ile Ala Ser Ser Asn Ala Leu Pro Ile Ser Ser Pro Asp Leu
                85                  90                  95
Glu Gly Phe Ile Asp Ala Arg Gln Lys Leu Glu Ser Gln Gln Gln Glu
            100                 105                 110
Asn Lys Gly Val Gln Ala Glu Phe Asp Lys Leu Asp Glu Asp Ser Arg
        115                 120                 125
Ile Tyr Lys Ile Val Gly Pro Val Leu Leu Lys Gln Asp Lys Asn Glu
    130                 135                 140
Ala Val Met Ala Val Asn Gly Arg Leu Asp Phe Ile Glu Lys Glu Met
145                 150                 155                 160
Cys Val Phe Pro Cys Leu Ile Leu Pro Ala Arg Val Glu Asp His Gly
                165                 170                 175

<210> 30168
<211> 61
<212> PRT
<213> A.fumigatus

<400> 30168
Gly Lys Leu Glu Thr Pro Ala Val Gly Val Ser Cys Gly Val Glu His
1               5                   10                  15
Leu His Thr Pro Leu Arg Cys Thr Ser Thr Leu Met Glu Asp Ser Asn
            20                  25                  30
Ile Asn Gln His Pro Thr Ala Thr Phe Ala Val Ile Ala Asn Lys Gln
        35                  40                  45
Ser Arg Leu Asp Gly Cys Arg Ser Ser Tyr Trp Leu Tyr
    50                  55                  60

<210> 30169
<211> 399
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (28)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30169
Ala Ile Ser Met Val Leu Ser Thr Pro Gly Ile Leu Arg Gly Glu Ile
1               5                   10                  15
Ala Gly Lys Ser Ser Asn Val Ala Phe Ala Pro Xaa His Ile Met Glu
            20                  25                  30
Val His Arg Ala Glu Leu Glu Ser Gly His Cys Asp Val Ile Val Thr
        35                  40                  45
Val Met Asp Gly Arg Cys Cys Pro Ile Val Trp Pro Ile Tyr Ser Ala
    50                  55                  60
Asn Arg Val Ile Ala Asp Thr His Phe Trp Gln Asp Tyr Phe Thr Glu
65                  70                  75                  80
Ile Arg Arg Leu His Tyr Ala His Ile Ser Glu Ala Asp Arg Thr Leu
                85                  90                  95
```

```
Tyr Cys Cys Pro Ile Ile Phe Asp Arg Asn Ser Gln Glu Thr Pro Val
            100                 105                 110
Leu Val Arg Cys Ala Asp Leu Leu Trp Gly Phe Ala Gly Leu Ser Thr
        115                 120                 125
Ile Tyr Pro Gly Thr Cys Ile Ser Ile Pro Thr Ser Val Tyr Ser Leu
    130                 135                 140
Pro Leu Ser Leu Ala Glu Arg Ile Gly Gly Trp Asp Ser Asp Ser Thr
145                 150                 155                 160
Ala Ile Gly Glu Asp Met His Met Met Leu Lys Cys Tyr Phe Glu Thr
                165                 170                 175
Ala Gly Asn Val Ile Thr Arg Pro Val Tyr Val Pro Ala Ser Gln Cys
            180                 185                 190
Asn Val Ala Ser Asp Thr Gly Arg Gly Trp Arg Arg Ser Leu Asn Thr
        195                 200                 205
Cys Arg Ala Arg Tyr Arg Gln Ala Leu Arg His Met Trp Gly Ala Leu
    210                 215                 220
Asp Ser Gly Phe Ala Ala Arg Arg Thr Ile Ser Tyr Ile Arg Ser His
225                 230                 235                 240
Cys Arg Cys Leu Phe Phe Arg Pro Arg His Leu Ala Leu Ile His Leu
                245                 250                 255
Leu Trp Glu Ala His Phe Leu Pro Cys His Leu Ile Ile Leu Met Val
            260                 265                 270
Phe Ser Thr Ile Tyr Thr Leu Leu Thr Pro Pro Ala Ser Leu His Pro
        275                 280                 285
Thr Met Ala Trp Thr Phe Asp Leu Thr Asn Leu Leu Arg Ala Ser Ser
    290                 295                 300
Phe Ile Gly Met Asn Met Cys Ile Phe Leu Tyr Glu Pro Trp His Ala
305                 310                 315                 320
Leu Cys Val Arg Thr Arg Lys Thr Asp Met Gln Gln Ala Asn Val Ala
                325                 330                 335
Asp Ala Gly Phe Ser Glu Arg Ile Trp Trp Ser Pro Ala Gln Leu Val
            340                 345                 350
Glu Arg Ile Cys Phe Pro Ile Ala Gly Thr Val Phe Gly Gly Ile Pro
        355                 360                 365
Thr Val His Ala Val Phe Ser His Phe Trp Thr Asp Arg Leu Val Tyr
    370                 375                 380
Arg Val Thr Lys Lys Pro Thr Phe Ser Val Ala Gly Ala Met Ala
385                 390                 395
```

<210> 30170
<211> 152
<212> PRT
<213> A.fumigatus

<400> 30170

```
Leu Ile Leu Thr Arg Tyr His Leu Asn Gly Trp Ala Pro Asp Asp Pro
1               5                   10                  15
Leu Trp Ala Glu Gln Ala Gly Glu Tyr Lys Lys Tyr Leu Ser Ala Tyr
            20                  25                  30
Gln Ala Leu Ala Lys Glu Leu His Ile Cys Leu Val Pro Gly Ser Ile
        35                  40                  45
Val Glu Arg His Glu Thr Glu Ala Asp Gly Lys Glu Gly Phe Asn Leu
    50                  55                  60
Tyr Asn Thr Ala Tyr Phe Ile Ser Asn Asp Gly Ser Ile Leu Gly Ser
65                  70                  75                  80
Tyr Gln Lys Lys Asn Ile Trp His Pro Glu Arg Pro His Leu Thr Ser
```

```
                85                  90                  95
Ser Gly Glu Ala Pro His Glu Val Phe Asp Thr Pro Ile Gly Lys Val
            100                 105                 110
Gly Leu Leu Ile Cys Trp Asp Leu Ala Phe Pro Glu Ala Phe Arg Glu
        115                 120                 125
Leu Ile Ala Thr Gly Ala Glu Val Val Ile Ile Pro Thr Phe Cys Glu
    130                 135                 140
Trp Pro Val Ser Leu Ser Val Val
145                 150
```

<210> 30171
<211> 334
<212> PRT
<213> A.fumigatus

<400> 30171

```
Met Arg Leu Ala Arg Met Leu Arg Pro Leu Cys Gly Glu Asp Asp Pro
1               5                   10                  15
Glu Leu Lys Ala Ala Phe Leu Pro Ser Pro Leu Thr Ser Ser Phe Arg
            20                  25                  30
Pro Phe Gln Ala Ala Lys Glu Phe Thr Pro Tyr Leu Tyr Glu Leu Asn
        35                  40                  45
Glu Ala Glu Leu Glu Arg Thr Glu Val Ser Ile Ser Arg Asp Gln Arg
    50                  55                  60
Arg Gln Lys Arg Ser Val Asn Arg Arg Gly Gly Pro Ala Leu Pro Asp
65                  70                  75                  80
Leu Lys Asp Arg Gln Arg Thr Ile Arg Thr Met Leu Val Ser Ser Val
                85                  90                  95
Ile Pro Asn Thr Ala Ala Ser Ile Glu Glu Ser Asn Val Phe Lys Arg
            100                 105                 110
Ser Gly Ser Ser Arg His Arg Arg Ala Ala Val Gly Gln Arg Asp Gly
        115                 120                 125
Gly Glu Glu Ser Asp Glu Ser Asp Ser Asp Glu Ser Ser Met Thr Gly
    130                 135                 140
Ser Pro Ala Ile Gly Pro His Leu Ala Gln Gly Thr Ala Arg Thr Arg
145                 150                 155                 160
Gly Met Arg Gly Ala Ala Ser Ala Ala His Ala Ala Leu Arg Ala Ser
                165                 170                 175
Leu Ala His Ser Ala Thr Pro Glu Pro His His Glu Pro Arg Val Ser
            180                 185                 190
Ala Arg Arg Arg Asp Tyr Arg Glu Glu Ser Ile Glu Glu Gln Glu Lys
        195                 200                 205
Leu Ile Val Lys Leu Lys Ile Ser Pro Glu Lys Phe Arg Gln Phe Leu
    210                 215                 220
Ala Asn Arg Pro Gln Ser Leu Pro Asn Ala Ser Val Ser Thr Ser Thr
225                 230                 235                 240
Pro Ala Ala Gln Pro Val Ser Gln Thr Gly Thr Pro Gln Val Arg Thr
                245                 250                 255
Pro Thr Pro Ser Ser Met Ala Pro Pro Ser Gln Pro Lys Pro Gln Val
            260                 265                 270
Gln Val Pro Asn Thr Ala Gly His Leu Pro Gln Arg Pro Val Gln Gln
        275                 280                 285
Leu Gly Ala Val Asp Ala Thr His Pro Pro Gln Pro Gly Val Pro Gly
    290                 295                 300
Val Gly Thr Ser Phe Leu Leu Thr Leu Leu Tyr Ser Val Ser Phe Leu
305                 310                 315                 320
```

```
Ala Leu Ser Arg Cys Pro Cys Leu Gln Phe Ile Cys Val Cys
                325                 330

<210> 30172
<211> 107
<212> PRT
<213> A.fumigatus

<400> 30172
Pro Pro Pro Pro Ala Trp Leu Ser Ala Gly Leu Ala Arg Leu Asn Arg
1               5                   10                  15
Ser His Pro Asn Asp Ser Phe Glu Gly Val Met Arg Tyr Thr Ala Val
            20                  25                  30
Asp Thr Glu Thr Met Leu Pro Val Ala Asn Ala Asn Ser Gln Pro Gly
        35                  40                  45
His Arg Leu Lys Tyr Gln Tyr Leu Pro Arg Ile Arg Cys His Asp Cys
    50                  55                  60
Pro Gly Lys Leu Tyr Thr Pro Gly Pro Gly Met Thr Val Asp Asn Phe
65                  70                  75                  80
Glu Val His Leu Arg Asn Arg Gln His Lys Glu Arg Val Glu Glu Arg
                85                  90                  95
Leu Ala Lys Ala Ala Ala Asn Gly Gly Ser Ser
            100                 105

<210> 30173
<211> 108
<212> PRT
<213> A.fumigatus

<400> 30173
Gly Arg Ala Phe Val Met Arg Phe Leu Asn Ala Phe Glu Arg Glu Ser
1               5                   10                  15
Lys Val Arg Tyr Thr Leu Asn Arg His Val Cys Asn Leu Ser Lys Phe
            20                  25                  30
Tyr Thr Leu Gly Arg Gln Val Ile Ser Asn Ser Ile Asp Lys Tyr Ile
        35                  40                  45
Ser Ala Ala Ser Ala Ser His Leu Ala Val His Gln Ser Ile Leu Phe
    50                  55                  60
Ser Ala Cys Asp Met Ser Asp Thr Tyr Arg Ser Gln Ile Lys Leu Arg
65                  70                  75                  80
Leu Ala Arg Glu Arg Thr Phe Val Met Lys Ala Ser Leu Arg Arg Ile
                85                  90                  95
Asp Ser Thr Ala Leu Arg Leu Gly Leu Ser Ile Ala
            100                 105

<210> 30174
<211> 409
<212> PRT
<213> A.fumigatus

<400> 30174
Ser His Ile Met Ser Asn Asp Gly Phe Ser Ser Leu Lys Phe Arg Arg
1               5                   10                  15
Thr Ser Ser Lys Leu Gln Lys Asp Pro Pro Ser Val Ser Ser Arg Ile
            20                  25                  30
Leu Arg Ser Gln Gln Ser Asn Thr Ser Leu Lys Arg His Pro Ser Ala
```

```
        35                  40                  45
Pro Val Tyr Pro Arg Ser Ser Val Thr Gly Ser Arg Glu His Ser Arg
    50                  55                  60
Thr Arg Ser Asn Ala Tyr Gly Ser Ser Ser Ser Ser Leu Glu Gln His
65                  70                  75                  80
Ser Gly Gly Pro Ser Pro Val Leu Ala Gly Gly Asp Ser Asn Asn Ser
                85                  90                  95
Phe Ser Ser Lys Ser Arg Pro Gly Arg Phe Ser Phe Asn Thr Asp Pro
            100                 105                 110
Ser Ser Asp Glu Leu Thr Gly Ser Pro Phe Asp Ser Arg Gly Met Leu
        115                 120                 125
Ser Ala Leu Glu Glu Asn Thr Ala Glu Ser Glu Lys Ser Pro Pro Pro
    130                 135                 140
Gln Pro Pro Thr Leu Arg Ser Tyr His Thr Ser Pro Asp Ser Arg Gly
145                 150                 155                 160
Leu Arg Gln Ser Ala Ser Phe Thr Ala Leu Gln Asn Arg Met Asp Thr
                165                 170                 175
Phe Thr Gln Lys Ser Glu Asn Asp Gln Ser Thr Asn Thr Lys Arg His
            180                 185                 190
Ser Asp Glu Ala Asn Gly Thr Lys Val Phe Gly Arg Ser Lys Lys Ser
        195                 200                 205
Ser Phe Ser Ser Phe Val Asn Ser Met Leu Gly Ser Pro Arg Gly Ile
    210                 215                 220
Lys Ile Ser Ala Pro Glu Asn Pro Val His Val Thr His Val Gly Tyr
225                 230                 235                 240
Asp Asn Gln Thr Gly Gln Phe Thr Gly Leu Pro Lys Glu Trp Gln Arg
                245                 250                 255
Leu Leu Gln Glu Asn Gly Ile Ser Lys Lys Glu Gln Glu Glu His Pro
            260                 265                 270
Gln Thr Met Val Asp Ile Met Arg Phe Tyr Glu Lys Asn Ala Arg Gly
        275                 280                 285
Asp Asp Glu Val Trp His Lys Phe Asp His Ala Tyr Ala His His Gln
    290                 295                 300
Pro Thr Ala Asn Thr Pro Gly Ser Gln Arg Asn Ser Pro Pro Thr Ser
305                 310                 315                 320
Pro Arg Phe Pro Gln Asn His Glu Gly Ser Phe Glu Asn Pro Arg Ala
                325                 330                 335
Pro Pro Pro Ile Pro Arg Gly Ala Pro Ala Ala Thr Gln Ala Met Ser
            340                 345                 350
Pro Pro Ile Gly Gly Leu Val Pro Ser Arg Ala Pro Arg Lys Pro Pro
        355                 360                 365
Ala Pro Ala Asn Met Ile Pro Ala Arg Pro Ala Pro His Pro Pro Val
    370                 375                 380
Ala Arg Pro Pro Gln Asp Ala Tyr Ala Asn Pro Phe Ser Thr Pro Pro
385                 390                 395                 400
Ile Pro Glu Phe Arg Pro Phe Ala Leu
                405
```

<210> 30175
<211> 69
<212> PRT
<213> A.fumigatus

<400> 30175

```
Phe Glu Arg Trp Lys Gly Glu Gly Gly Arg Leu Ser Lys Arg Gln Val
1               5                   10                  15
```

```
Met Ser Arg Lys Thr Gly Leu Ala Ala Ser Val Thr Ile Ser Ala Gln
            20                  25                  30
Arg Asn Tyr Val Lys Thr Ile Asn Pro Met Phe Pro Thr Thr Leu Ile
        35                  40                  45
Pro Tyr Lys Arg Ser Ile Asp Ala Phe Ser Thr Phe Cys His Val Lys
    50                  55                  60
His Leu Thr Asn Pro
65
```

<210> 30176
<211> 82
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (14)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30176

```
Pro Pro Ser Ile Ile Phe Gly Pro Gly Thr Ile Glu Val Xaa Met Asp
1               5                   10                  15
Gly Leu Pro Glu Tyr Leu Ser Arg Cys Lys Trp Arg Pro Leu Leu Ser
            20                  25                  30
Phe Leu Asp Val Ile Asp Ser Lys Ile Ala Gly Gln Thr Tyr Glu Gly
        35                  40                  45
Gly Ile Ser Gly Ser Pro Gly Ser Glu Ala His Gly Ala Tyr Ala Phe
    50                  55                  60
Cys Ala Leu Ala Cys Leu Cys Leu Leu Gly Arg Pro Glu Val Val Val
65                  70                  75                  80
Pro Arg
```

<210> 30177
<211> 221
<212> PRT
<213> A.fumigatus

<400> 30177

```
Arg Ser Ala Phe Thr Asp His Leu Ser Thr Val Ala Glu Cys Ile Arg
1               5                   10                  15
Tyr Met Asn Ile Ala Thr Leu Leu Pro Trp Leu Ser Ala Arg Gln Tyr
            20                  25                  30
Ala Pro Glu Gly Gly Phe Ser Gly Arg Thr Asn Lys Leu Val Asp Gly
        35                  40                  45
Cys Tyr Ser His Trp Val Gly Asn Cys Trp Pro Leu Val Gln Ala Ala
    50                  55                  60
Leu Asp Gly Thr Gln Pro Leu Ala Gly Pro Lys Arg Ser Ser Val Gly
65                  70                  75                  80
Asn Leu Tyr Ser Arg Glu Gly Leu Thr Arg Tyr Ile Leu Ser Cys Cys
                85                  90                  95
Gln Cys Lys Leu Gly Gly Leu Arg Asp Lys Pro Gly Lys Tyr Val Asn
            100                 105                 110
Ser Cys Ala Gln Thr Phe Glu Val Glu Val Gln Arg Leu Thr Val Tyr
        115                 120                 125
Arg His Pro Asp Ser Tyr His Thr Cys Tyr Ala Leu Thr Gly Leu Ser
```

```
    130                 135                 140
Thr Val Gln Tyr Tyr His Tyr Cys Thr Asp Ser Ser Val Ser Ser Lys
145                 150                 155                 160
Asp Asp Phe Ser Ser Ala Phe Ser Trp Lys His Asp Pro Asn Phe Ala
                165                 170                 175
Ser Asp Gly Gln Gly Ser Asp Ile Gly Val Phe Thr Glu Asn Asp Arg
            180                 185                 190
Leu Val Pro Phe His Pro Ile Phe Val Ile Pro His Lys Ser Ala Glu
        195                 200                 205
Asp Ile Arg Val Trp Phe Glu Asn Gln Ser Phe Asp Leu
    210                 215                 220
```

<210> 30178
<211> 194
<212> PRT
<213> A.fumigatus

<400> 30178

```
Leu Ser Leu Leu Ala Phe Glu Leu Cys Ala His Thr Ala Tyr Ser Pro
1               5                   10                  15
Ser Met Arg Ala Pro Ser Gly Ser Leu Tyr His Leu Gln Pro Arg Leu
            20                  25                  30
Asp Asp Ile Leu Asn Asp Val Ala Pro Phe Pro Tyr Thr Leu Gly Ala
        35                  40                  45
Phe Ile Ala Phe Leu Ser Glu Arg Gln Cys Leu Glu Thr Val Glu Phe
    50                  55                  60
Leu Leu Glu Thr Lys Arg Tyr Cys Arg Ile Tyr His Trp Leu Glu Gln
65                  70                  75                  80
Arg Thr Glu Thr Cys Glu Ala Val Arg Lys Ala His Leu Cys Gly Leu
                85                  90                  95
Trp Asn Arg Leu Ile Asn Gln Tyr Ile Arg Pro Ser Ala Glu Arg Glu
            100                 105                 110
Ile Asn Ile Pro Cys Asp Ile Arg Gln Arg Leu Met Gln Gln Phe His
        115                 120                 125
Leu Gln Glu Asp Asp Pro Pro Pro Pro Glu Ile Leu Asp Gln Val Val
    130                 135                 140
Cys Asn Val Lys Glu Leu Leu Arg Gly Ser Ile Leu Ile Pro Phe Leu
145                 150                 155                 160
Arg Arg Ser Ser Ala Thr Ala Arg Val Gln Pro Leu Ser Met Pro Cys
                165                 170                 175
Leu Asn Gly Ser Leu Val Phe Tyr His Arg Gly Ser Lys Glu Pro Arg
            180                 185                 190
Asn Gly
```

<210> 30179
<211> 182
<212> PRT
<213> A.fumigatus

<400> 30179

```
Thr Trp Lys Trp Glu Arg Phe Ala Gly Trp Thr Phe Arg Asn Ala Phe
1               5                   10                  15
Ile Gly Trp Gly Asp Leu Ala Ser Glu Glu Val Pro Ser Thr Arg Asp
            20                  25                  30
Gly Thr Ala Gly Val Phe Asp Ser Gly Gln Leu Phe Asp Val Glu Ile
```

```
        35                  40                  45
Ser Val Leu Val Arg Leu Ser Ile Thr Val Thr Ile Gly Arg Ile Thr
    50                  55                  60
Val Asp Asn Val His Arg Gly Ile Leu Gly Ala Ala Thr Ile Leu Ser
65                  70                  75                  80
Val Val Ala Gly Thr Ile Leu Leu Leu Phe Thr Ile Phe Gln Cys Thr
                85                  90                  95
Pro Val Asp Tyr Tyr Trp Asn Arg Leu Thr Lys Glu Gly His Cys Met
            100                 105                 110
Asp Met Asp Leu Leu Val Gly Ile Val Tyr Met Tyr Ser Ala Ala Ala
        115                 120                 125
Ala Val Cys Asp Phe Thr Ile Gly Leu Leu Pro Ala Phe Met Ile Gly
    130                 135                 140
Arg Leu Lys Met Asp Arg His Thr Lys Met Ala Val Ile Gly Val Leu
145                 150                 155                 160
Ser Ile Gly Cys Val Tyr Val Pro Ala Pro Asp Arg Thr Gly Trp Thr
                165                 170                 175
Leu Thr Phe Arg Gln Cys
            180
```

Application No. 10/542,744 Amendment Dated June 30, 2009

<210> 30180
<211> 230
<212> PRT
<213> A.fumigatus

<400> 30180

```
Ile Ala Arg Ser Ala Gly Ile Ala Gln Lys Leu Lys Ile Gly Val Val
1               5                   10                  15
Gln Thr Ala Tyr Ala Asn Gly Ser Ser Thr Glu Tyr Ile Glu Lys Val
            20                  25                  30
Leu Lys Leu Pro Ser Val Cys Thr Asn Thr Gly Val Lys His Leu His
        35                  40                  45
His Ala Ala Met Arg Phe Asp Val Gly Val Tyr Phe Glu Ala Asn Gly
    50                  55                  60
His Gly Thr Ile Thr Phe Ser Glu Asn Ala Leu Lys Thr Ile Lys Asn
65                  70                  75                  80
Thr Glu Pro Gln Ser Pro Ala Gln Gln Arg Ser Leu Glu Cys Leu Gln
                85                  90                  95
Ala Leu Thr Asp Leu Ile Asn Gln Ala Val Gly Asp Ala Ile Ser Asp
            100                 105                 110
Met Leu Leu Val Glu Ala Ile Leu Ala His Lys Gly Trp Thr Pro Lys
        115                 120                 125
Glu Trp Leu Ala Thr Tyr Thr Asp Leu Pro Ser Arg Leu Val Arg Val
    130                 135                 140
Glu Val Ala Asp Arg Ser Ile Phe Lys Ala Tyr Asp Ala Glu Arg Lys
145                 150                 155                 160
Leu Glu Ser Pro Pro Gly Leu Gln Ala Lys Ile Asp Ser Leu Gln Ser
                165                 170                 175
Arg Tyr Asn Lys Gly Arg Ser Phe Ala Arg Ala Ser Gly Thr Glu Asp
            180                 185                 190
Ala Val Arg Val Tyr Ala Glu Ala Ala Ser Arg Ser Glu Ala Asp Asp
        195                 200                 205
Leu Ala Thr Arg Val Ala Asn Ala Val Arg Asp Ala Gly Thr Val Lys
    210                 215                 220
Glu Ile Leu Gln Ala Ser
225                 230
```

<210> 30181
<211> 172
<212> PRT
<213> A.fumigatus

<400> 30181
Asp Ala Val Phe Phe Pro Ala Val Glu Ile Leu Leu Arg Ser Leu Gly
1 5 10 15
Phe Gly Ala Ile Pro Leu His Gly Gln Leu Ser Gln Ser Ala Arg Leu
20 25 30
Gly Ala Leu Gly Lys Phe Arg Ser Arg Ser Arg Asp Ile Leu Val Ala
35 40 45
Thr Asp Val Ala Ala Arg Gly Leu Asp Ile Pro Ser Val Asp Val Val
50 55 60
Leu Asn Phe Asp Leu Pro Thr Asp Ser Lys Thr Tyr Val His Arg Val
65 70 75 80
Gly Arg Thr Ala Arg Ala Gly Lys Ser Gly Val Ala Ile Ser Phe Val
85 90 95
Thr Gln Tyr Asp Val Glu Ile Trp Leu Arg Ile Glu Gly Ala Leu Gly
100 105 110
Lys Lys Leu Lys Glu Tyr Glu Leu Glu Lys Asp Glu Val Met Val Leu
115 120 125
Ala Glu Arg Val Gly Glu Ala Gln Arg Gln Ala Ile Met Glu Met Lys
130 135 140
Asn Phe Asp Glu Lys Arg Gly Thr Lys Ala Lys Lys Phe Gly Lys Gly
145 150 155 160
Lys Arg Ser Arg Asp Glu Met Asp Gln Glu Glu Gly
165 170

<210> 30182
<211> 162
<212> PRT
<213> A.fumigatus

<400> 30182
Pro Arg Ala Asn Ala Arg Ile Val Ala Pro Val Glu Lys Thr Asp Val
1 5 10 15
Cys Ala Gly Ile Gly Gly Asn Ile Leu Gln Ala Lys Val Ala Leu Arg
20 25 30
Lys Ala Lys Pro Ala Gly Gln Phe Gln Leu Lys Pro Asp Ser Val Leu
35 40 45
Asp Leu Ile Gly Asp Leu Thr Val Gln Asp Leu Pro Gly Val Gly Tyr
50 55 60
Ser Leu Gly Ala Lys Leu Glu Glu Leu Gly Val Lys Leu Val Lys Asp
65 70 75 80
Val Arg Gly Val Ser Arg Glu Lys Leu Ile Asn His Leu Gly Pro Lys
85 90 95
Thr Gly Leu Lys Ile Trp Glu Tyr Ala Arg Gly Ile Asp Arg Thr Glu
100 105 110
Val Gly Asn Glu Val Leu Arg Lys Ser Val Ser Ala Glu Val Asn Trp
115 120 125
Gly Ile Arg Phe Val Asn Gln Thr Gln Ala Glu Asp Phe Val Lys Ser
130 135 140
Leu Cys Glu Glu Leu His Arg Arg Leu Ser Asp Asn Leu Val Lys Gly
145 150 155 160

Asn Ser

<210> 30183
<211> 346
<212> PRT
<213> A.fumigatus

<400> 30183
Pro Gly Gln Arg Gln Gln Leu Thr Leu Lys Val Met Arg Arg Ala Ala
1 5 10 15
Asp Ala Pro Leu Glu Pro Val Lys His Leu Gly His Gly Lys Cys Asp
20 25 30
Val Phe Asn Arg Ser Val Val Leu Gly Ile Ala Thr Asn Ala Pro Glu
35 40 45
Val Leu Ala Lys Glu Ala Ile Ser Met Leu Arg Ser Phe Gly Ile Thr
50 55 60
Pro Gly Asp Leu Arg Gly Leu Gly Val Gln Met Thr Lys Leu Glu Pro
65 70 75 80
Leu Lys Leu Gly Ala Thr Asn Lys Pro Glu Gly Ser Gln Gln Gln Leu
85 90 95
Lys Phe Lys Ala Ser Pro Ala Arg Lys Ser His Glu Gln Val Arg Asp
100 105 110
Pro Asp Asp Leu Asp Ser Pro Arg Lys Ala Asp Ala Ala Ala Val Ser
115 120 125
His Gly Pro Thr Leu Asn Asp Asp Ser Tyr Lys Pro Leu Asn Ile Ser
130 135 140
Gly Thr Gln Phe Ile Met Pro Ser Gln Ala Asp Pro Lys Val Ile Ala
145 150 155 160
Glu Leu Pro Ser Asp Ile Arg Ser Lys Leu Met Ser Gln Gly Lys Gly
165 170 175
Arg Gln Ala Ser Arg Ser Thr Ser Pro Cys Pro Ala Ala Arg Arg Thr
180 185 190
Gln Thr Ser Thr Ala Thr Ala Leu Pro Pro Gln Ser Gln Leu Asp Pro
195 200 205
Asp Thr Leu Ala Ala Leu Pro Glu Asp Val Arg Ala Glu Ile Leu Gly
210 215 220
Tyr Tyr Gly Arg Thr Ser Ser Thr Pro Glu Pro Gln Pro Ala Val Ser
225 230 235 240
Thr Val Pro Ser Ser Arg Pro Ala Ser Ser Gly Ser Leu Gly Ile Lys
245 250 255
Lys Ser Ser Thr Pro Thr Lys Lys Arg Arg Gly Arg Pro Ser Thr Lys
260 265 270
Gly Thr Gly Asn Met Thr Leu Thr Gln Ser Asn Phe Ile Ile Ala Arg
275 280 285
Ser Thr Leu Thr Pro Val Asn Thr Glu Glu Gln Ala Ser Ser Arg Gln
290 295 300
Pro Ser Pro Ser Pro Asp Pro Glu Ile Ser Ala Asp Phe Leu Ala Ala
305 310 315 320
Leu Pro Glu Asp Ile Arg Arg Glu Val Leu Glu Glu Gln Lys Arg Ala
325 330 335
Arg Lys Leu Gln Arg Ser Gly Leu Gln Leu
340 345

<210> 30184
<211> 73

<212> PRT
<213> A.fumigatus

<400> 30184
Pro Glu Ile Val His Leu Cys Ile Arg Arg Val Ala Arg Ala Glu Trp
1 5 10 15
Ala Leu Leu Asn Glu Glu Ile Ser Val Arg Glu Cys Ala Tyr Leu Arg
20 25 30
Asp Ala Asn Asp Val Pro Gln Gln Val Lys Asp Met Phe Leu Arg Ile
35 40 45
Ser Phe Gly Ala Asp Glu Val Ile Leu Glu Ile Leu Phe Leu Ile Leu
50 55 60
Phe Met Val Thr Arg Thr Val Val Ala
65 70

<210> 30185
<211> 131
<212> PRT
<213> A.fumigatus

<400> 30185
Leu Val Ala Val His His Leu His Leu Ser Asp Lys His Thr Leu Leu
1 5 10 15
Gln Ile Ser Leu Arg Ser Gly Glu Pro Ile Gln Arg Glu Gln Leu Phe
20 25 30
Glu Tyr Thr Asn Gly Arg Phe Leu Val Asn Glu Lys His Glu Met Ser
35 40 45
Lys Arg Tyr Ala Lys Phe Asp Leu Asp Ala Leu Cys Ser Leu Val Ser
50 55 60
Ser Leu Pro Ser Val Ser Ser Pro Ile Ser Lys Val Glu Lys Met Glu
65 70 75 80
Gly Gly Phe Asn Lys Thr Leu Leu Met Thr Ala Glu Asn Arg Lys Gly
85 90 95
Val Leu Ala Lys Met Pro Cys Pro Ala Val Val Pro Ser Arg Tyr Ser
100 105 110
Thr Ala Ser Glu Val Ala Thr Phe Glu Tyr Gly Lys Leu Cys Val Thr
115 120 125
Val Pro Leu
130

<210> 30186
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30186
Asn Met Thr Phe Leu Pro Val Lys Ser Leu Thr Ser Met Pro Val Pro
1 5 10 15
Glu Val Leu Thr Trp Ser Cys Asp Ala Leu Asn Pro Val Gly Asn Glu
20 25 30
Tyr Ile Val Met Glu Lys Ala Lys Gly Arg Gln Leu Val Glu Val Trp
35 40 45
Gly Glu Met Asp Gln Ala Gln Lys Phe Lys Leu Ile Gln Thr Leu Ser
50 55 60
Gly Trp Lys Ala Ser Trp Pro Gln
65 70

<210> 30187
<211> 261
<212> PRT
<213> A.fumigatus

<400> 30187
Arg Gly Ser Phe Arg Pro Arg Gly Glu Asp Ile Ala Asp Leu Ala Ala
1 5 10 15
Ser Val Val Tyr Val Pro Ser Glu Val Leu Lys Thr Arg Leu Gln Leu
20 25 30
Gln Gly Arg Tyr Asn Asn Pro Tyr Phe Asn Ser Gly Tyr Asn Tyr Arg
35 40 45
Ser Thr Ser Asp Ala Leu Arg Thr Ile Ile Arg Gln Glu Gly Phe Ser
50 55 60
Ala Leu Phe Tyr Gly Tyr Lys Ala Thr Ile Phe Arg Asp Leu Pro Phe
65 70 75 80
Ser Ala Leu Gln Phe Ala Phe Tyr Glu Gln Glu His Arg Leu Ala Lys
85 90 95
Glu Trp Val Gly Ser Arg Asp Ile Gly Leu Gly Leu Lys Ile Leu Thr
100 105 110
Ala Val Thr Ala Gly Gly Met Ala Gly Val Ile Thr Trp Pro Met Asp
115 120 125
Val Val Lys Thr Arg Ile Gln Thr Gln Gln Asn Pro Asp Ala Val Lys
130 135 140
Pro Ser Ser Ala Ser Ser Lys Gly Pro Val Glu His Ala Ser Thr Lys
145 150 155 160
Glu Thr Leu Arg Gln His Thr Ser Asn Gln Thr Thr Ser Ser Leu Arg
165 170 175
Thr Arg Ser Arg Pro Ile Ser Thr Gly Gly Ala Ser Thr Ser Val Arg
180 185 190
Pro Pro Gly Thr Pro Arg Leu Asp Thr Ser Ser Phe Phe Thr Gly Leu
195 200 205
Lys Val Ile Tyr Gln Thr Glu Gly Phe Ser Gly Trp Phe Arg Gly Val
210 215 220
Gly Pro Arg Gly Val Trp Thr Ser Ile Gln Ser Gly Thr Met Leu Val
225 230 235 240
Met Tyr Gln Tyr Leu Leu Lys Gln Leu Glu Ala Trp Gln Thr Thr Gly
245 250 255
Glu Thr Gly Pro Leu
260

<210> 30188
<211> 95
<212> PRT
<213> A.fumigatus

<400> 30188
Ser Val Arg Ser Tyr Ala Asp Tyr Ser Asn Lys Asp Ala Leu Ala Ile
1 5 10 15
Ala Leu Asn Lys Tyr Leu Gln Asp Asn Gln Thr Ile Leu Ile Asn Val
20 25 30
Pro Glu Leu Lys Glu Tyr Trp Thr Arg Ala Ser Ser Thr Ser Pro Ala
35 40 45
Arg Thr Ser Pro Val Lys Lys Ala Val Gly Val Asp Val Thr Pro Ala
50 55 60

```
Pro Lys Lys Val Ala Pro Ala Gly Arg Lys Ala Thr Pro Gly Thr Thr
65                  70                  75                  80
Arg Arg Arg Gln Thr Gln Pro Lys Lys Glu Glu Val Glu Val Thr
                85                  90                  95

<210> 30189
<211> 400
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (308)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30189
Trp Ser Glu His His Gln Gly Phe Asn Ser Ser Ile Gly Thr Tyr His
1               5                  10                  15
Lys Ile Gln Ser Asn Ile Gln Ser Ser Gln Asn Arg Val Arg Asn Leu
            20                  25                  30
Lys His Ala Leu Glu Asp Ala Lys Ala Gly Leu Leu Tyr Thr Lys Pro
        35                  40                  45
Glu Leu Lys Gly Leu Ala Thr Ser Ser Gln Lys Tyr Asp Asp Leu Ile
    50                  55                  60
Gln Leu Leu Ser Gln Ile Gln Glu Ile Gln Ser Leu Pro Glu Lys Leu
65                  70                  75                  80
Glu Ser Arg Ile Ser Asp Lys Arg Phe Leu Gly Ala Val Glu Val Leu
                85                  90                  95
His Asp Ala Phe Arg Leu Leu Arg Arg Ser Glu Leu Glu Asn Ile Gly
            100                 105                 110
Ala Leu Ala Asp Ile Arg Ala Tyr Phe Ala Asn Gln Glu Ile Ser Leu
        115                 120                 125
Thr Asp Ile Leu Ile Glu Glu Leu His Asp His Leu Tyr Leu Lys Ser
    130                 135                 140
Pro Tyr Cys Ser Asn Arg Trp Lys Pro Pro Ala Gln Glu Gly Glu Val
145                 150                 155                 160
Gly Thr Ala Asn Ala Ser Ser Trp Thr Gly Val Ala Thr Trp Glu Lys
                165                 170                 175
Pro Val Tyr Ala Phe Leu Gly Lys Leu Asp Ala Thr Thr Pro Leu Val
            180                 185                 190
Glu Asp Ala Ser Arg Asn Pro Glu Ala Asp Thr Phe Tyr Tyr Ile Arg
        195                 200                 205
Leu Leu Ile Glu Ala Leu Asn Lys Met Gly His Leu Asp Ile Ala Val
    210                 215                 220
Asp Arg Ile Glu Gln Arg Leu Pro Val Glu Leu Phe Ala Val Val Asp
225                 230                 235                 240
Lys Thr Asn Ala Glu Val Asp Ala Arg His Pro Asn Leu Gly Arg Gly
                245                 250                 255
Leu Ser Ser Arg Asp Gly Lys Thr Ser Leu Pro Thr Glu Ala Ile Glu
            260                 265                 270
Lys Arg Gly His Val Leu Thr Glu Phe Leu Trp Thr Leu Tyr Ala Lys
        275                 280                 285
Phe Glu Ala Ile Ala Glu Gly His Arg Val Leu His Asp Ala Thr Ala
    290                 295                 300
Gly Ile Val Xaa Arg Glu Gly Ile Pro Lys Thr Val His Leu Gln Val
305                 310                 315                 320
```

```
Val Ser Lys Ser Cys Gly Asn Ser Ile Lys Met Lys Ser Val Ala Pro
                325                 330                 335
Pro Arg Phe Gly Leu Asn Ala Ser Gln Cys Ser Leu Ser His Ser Phe
            340                 345                 350
Tyr Arg Phe Val Pro Cys Cys Thr Ile Thr Trp Pro Pro Met Glu Ser
        355                 360                 365
Pro Pro Leu Asp Leu Glu Lys Lys Lys Pro Met Leu Asn Val Lys Phe
    370                 375                 380
Met Leu Val Ile Gly Ile Gly Thr Arg Cys Val Cys Leu Pro His Val
385                 390                 395                 400
```

<210> 30190
<211> 130
<212> PRT
<213> A.fumigatus

<400> 30190

```
His Arg Ala Ser Ala Leu Leu Asp Ser Leu Arg Gln Val Ala Ala Val
1               5                   10                  15
Met Asn Asp Ala Ser Glu Pro His Arg Ala Ala Tyr Gln Glu Thr Trp
            20                  25                  30
Asp Phe Leu His Asp Thr Ile Ser Leu Trp Pro Leu Gly Gly Pro Arg
        35                  40                  45
Gly Gly Ile Ile Ser Trp Pro Val His Ile Gly Glu Asp Tyr Ile Ala
    50                  55                  60
Leu Leu Lys Gln Gly Asp Trp Ile Ala Arg Ile Leu Phe Leu His Tyr
65                  70                  75                  80
Gly Val Gly Met His Leu Leu Ser Asp Lys Trp Tyr Val Ser Asp Trp
                85                  90                  95
Gly Arg Arg Leu Val Ala Ala Val Leu Gln Pro Leu Gln Asp Ile Pro
            100                 105                 110
Pro Ile Trp Ala Glu Thr Ile Thr Trp Ile Arg Gln Ala Val Asp Leu
        115                 120                 125
Asn Ser
    130
```

<210> 30191
<211> 70
<212> PRT
<213> A.fumigatus

<400> 30191

```
Ala Pro Ala Leu Glu Pro Asp Gln Ile Asn Gln Leu Ile Val Ile Pro
1               5                   10                  15
Gly Met Tyr His Ser Gly Ile Gly Gly Gly Gly Phe Met Leu Val Arg
            20                  25                  30
Ala Pro Asn Gly Ser Phe Glu Phe Ile Asp Phe Arg Glu Thr Ala Pro
        35                  40                  45
Ala Ala Ala Phe Glu Glu Met Phe Asn Asn Ser Thr His Ala Ser Thr
    50                  55                  60
Ile Gly Gly Leu Ala Arg
65                  70
```

<210> 30192
<211> 212
<212> PRT

<213> A.fumigatus

<400> 30192

```
Asp Leu Leu Tyr Pro Ala Glu Leu Arg Arg Arg Thr Asn Val Ser Leu
1               5                  10                  15
Ser Gly Val Pro Gly Glu Leu Arg Gly Leu Glu Tyr Leu His Lys Lys
            20                  25                  30
Tyr Gly Ser Leu Pro Trp Ser Val Leu Val Gln Pro Ala Ile Lys Thr
        35                  40                  45
Ala Arg Glu Gly Phe Pro Val Gly Gln Asp Leu Val Lys Tyr Met Lys
    50                  55                  60
Ser Ala Val Gly Asp Gly Ile Asp Phe Leu Val Glu Asn Pro Thr Trp
65                  70                  75                  80
Ala Leu Asp Phe Ala Pro Asn Gly Thr Arg Leu Gly Leu Gly Asp Thr
                85                  90                  95
Met Thr Arg Arg Arg Tyr Ala Asp Thr Leu Glu Thr Ile Ala Asn Lys
            100                 105                 110
Gly Pro Ala Ala Phe Tyr Ser Gly Pro Ile Ala Glu Thr Met Ile Asn
        115                 120                 125
Ala Leu Gln Ala Ala Asn Gly Thr Met Thr Met Glu Asp Leu Arg Asn
    130                 135                 140
Tyr Thr Val Ala Ile Arg Asn Val Ser Gln Ile Asp Tyr Arg Gly Tyr
145                 150                 155                 160
Gln Ile Thr Ser Thr Ser Ala Pro Ser Ser Gly Thr Val Ala Leu Ser
                165                 170                 175
Ile Leu Lys Ile Leu Ser Thr Tyr Asp Gly Phe Phe Ala Pro Gly Asn
            180                 185                 190
Val Asn Leu Ser Thr His Arg Leu Asp Glu Ala Met Arg Phe Gly Tyr
        195                 200                 205
Gly Glu Val Cys
    210
```

<210> 30193
<211> 65
<212> PRT
<213> A.fumigatus

<400> 30193

```
Pro Glu Thr Lys Arg Thr Asn Leu Gly Asp Pro Leu Phe Val Ala Gly
1               5                  10                  15
Leu Asp Glu Phe Glu Glu Asn Met Leu Lys Gln Ser Thr Ile Asp Glu
            20                  25                  30
Ile Arg Arg Asn Ile Ser Asp Tyr Arg Thr Gln Asn Val Ser Ala Tyr
        35                  40                  45
Asn Pro Gln Gly Ile Glu Ser Leu Asn Glu Cys Glu Tyr Arg Ser Ser
    50                  55                  60
Ser
65
```

<210> 30194
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30194

```
Met Ser Ala Asn Ile Val Arg Leu Leu Glu Val Leu Thr Asp Lys Pro
```

```
1               5                   10                  15
Ser Ser Gly Thr Ser His Val Val Ala Ala Asp His His Gly Leu Ala
            20                  25                  30
Ile Ser Leu Val Thr Thr Ile Asn Thr Leu Phe Gly Ser Gln Leu Met
        35                  40                  45
Val Pro Glu Thr Gly Ile Phe Ile Asn His Glu Leu Glu Arg Thr Cys
    50                  55                  60
Cys Thr Gly Pro Pro Pro Phe His
65                  70
```

<210> 30195
<211> 92
<212> PRT
<213> A.fumigatus

<400> 30195

```
Phe Leu Phe Phe Ser Arg Val His Phe Tyr Ile Leu Phe Leu Asn Asn
1               5                   10                  15
Leu Phe Pro Leu Lys Asp Leu Phe Ser Asp Arg Leu Ser Leu Val Ile
            20                  25                  30
Ser Leu Leu Phe Ile Leu Ser Leu Phe Trp Cys Cys Leu Cys Gly Ala
        35                  40                  45
Gly His Leu Val Ser Ser His Leu Val Pro Phe Gly Phe Val Ser Ile
    50                  55                  60
Ile Thr Ser Ser Leu Ser His Ser Leu Ser Gly Asn Asn Leu Ser Asp
65                  70                  75                  80
Ile Phe Val Ser Ser Gln Ser Phe Gln Gly Val Leu
                85                  90
```

<210> 30196
<211> 75
<212> PRT
<213> A.fumigatus

<400> 30196

```
Pro Phe His Ser Ala Gly Gln Leu Ser Ile Ser Leu Leu Gln Gln Asp
1               5                   10                  15
Gln Arg Arg Pro Ser Ser Gln Tyr Leu Tyr Glu Cys Ser Lys Val Tyr
            20                  25                  30
Val Val Pro His Gly Phe Phe Gly Ser Asp Leu Gln Leu Asn Ile Thr
        35                  40                  45
Phe Cys His Thr Gln Pro Gly Thr Phe Phe Ala Tyr Ala Tyr Tyr Arg
    50                  55                  60
Leu Cys Ile Leu Gly Lys Ser Ser Ser Pro Phe
65                  70                  75
```

<210> 30197
<211> 61
<212> PRT
<213> A.fumigatus

<400> 30197

```
Thr Ser Ser Val Tyr Arg Val Pro Asn Gly Leu Asn Leu Phe Ile Tyr
1               5                   10                  15
Phe Gln Pro Tyr Thr Ile Gly Ala Arg Leu Ser Ser Arg Asn Ala Val
            20                  25                  30
```

```
His Val Met Ala Thr Pro Arg Ala Ser Arg Lys Ser Ser Met Ala Leu
        35                  40                  45
Ile Ser Val Asn Leu Gly His His Ile Tyr Ile Cys Tyr
    50                  55                  60

<210> 30198
<211> 311
<212> PRT
<213> A.fumigatus

<400> 30198
Trp Cys Ile Tyr Asp Gln Glu Ile Phe Leu Pro Gly Val Gln Leu Leu
1               5                   10                  15
Trp Phe Cys Pro Leu Ile Tyr Pro Gln Thr Met Leu Gln Tyr Lys Asn
            20                  25                  30
Gly Ile Tyr Pro Ile Leu Ala His Glu Ile Gly Glu Gly Leu Pro Val
        35                  40                  45
Leu Ile Ile His Gly Trp Lys Met Glu Ala Arg Val Glu Glu Leu Asp
    50                  55                  60
Phe Glu Pro Ile Phe Ser Thr Ile Pro Gly Leu Arg Arg Ile Tyr Val
65                  70                  75                  80
Asp Leu Pro Gly Met Gly Thr Thr Pro Ala Lys Asn Val Lys Asp Leu
                85                  90                  95
Asp Asp Ile Tyr Leu Arg Leu Val Gln Phe Ile Asp Ser Arg Leu Gly
            100                 105                 110
Lys Ser Arg Phe Leu Leu Val Gly Ser Ser Cys Gly Gly Tyr Leu Ala
        115                 120                 125
Arg Ala Ile Ala Gln Lys Tyr Ser Asn Gln Val Asp Gly Leu Leu Leu
    130                 135                 140
Arg Val Pro Leu Ile Glu Pro Lys Asp Ser Met Arg Asp Leu Asp Ala
145                 150                 155                 160
Phe Lys Pro Leu Val Ala Asn Glu Gln Leu Met Ser Asp Met Ser Ala
                165                 170                 175
Glu Asp Lys Thr Leu Leu Gly Asp Val Leu Val Gln Thr Pro Ala Tyr
            180                 185                 190
Val Lys Thr Leu Lys Ala Lys Tyr Asp Glu Val Tyr Leu Pro Ala Glu
        195                 200                 205
Lys Lys Ala Asp Ser Gln Val Leu Asp Pro Ile Arg Ala Asp Pro His
    210                 215                 220
Arg Tyr Gln Leu Ser Phe Ser Val Asp Asn Glu Gly Ala Lys Phe Phe
225                 230                 235                 240
Ala Pro Thr Leu Ile Ile Cys Gly Arg Gln Asp Glu Ser Val Gly Tyr
                245                 250                 255
Arg Asp Ser Leu Arg Leu Leu Glu Leu Tyr Pro Arg Ser Thr Tyr Val
            260                 265                 270
Val Leu Asp Arg Gly Thr His Gly Leu Pro Ile Asp Glu Thr Ser Val
        275                 280                 285
Phe Glu Ala Leu Val Arg Asp Trp Ile Asn Arg Val Asn Glu Trp Arg
    290                 295                 300
Gly Arg Thr Asp Arg Glu Val
305                 310

<210> 30199
<211> 63
<212> PRT
<213> A.fumigatus
```

<400> 30199
Asn Leu Thr Phe Lys Asp Lys Leu Arg Ile Tyr Ile Leu Ser Ile Tyr
1 5 10 15
Arg Tyr Thr Phe Asn Ser Cys Asn Ile Leu Ser Ser Phe Arg Phe Ser
20 25 30
Lys Ile Arg Asp Phe Pro Phe Leu Phe Tyr Thr Asn His Leu Pro Arg
35 40 45
Phe Thr Phe Thr Arg Leu Glu Ser Ile Phe Ile Lys Val Ile Tyr
50 55 60

<210> 30200
<211> 182
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (2)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30200
Arg Xaa Val Pro Thr Arg Lys Ser Pro Gly Val Leu Phe Ser Asn Arg
1 5 10 15
Phe Ser Val Asn Ala Phe Ala Leu Lys Ala Leu Cys Leu Ser Ser Gly
20 25 30
Cys Thr Leu Ala Ser Leu Phe Gln Ala Cys Trp Ala Val Leu Leu Gln
35 40 45
Cys Tyr Val Gly Ser Asp Asp Val Leu Phe Gly Tyr Ile Ala Ser Asn
50 55 60
Arg Gly Leu Pro Ile Arg Gly Ile Asp Arg Met Val Gly Leu Leu Ile
65 70 75 80
Ser Ile Leu Pro Arg Arg Val Arg Leu Ser Pro Ser Ala Ser Ser Val
85 90 95
Ser Glu Gln Val Arg Ala Ile Ala Lys His Ile His Glu Gln Leu His
100 105 110
Asp Asp Leu Glu His His Met Ser Ala Gly Asn Thr Met Ala Glu Val
115 120 125
Ile Gln Arg Gly Arg Cys Ile Glu Glu Leu Leu Phe Pro Phe Asp Thr
130 135 140
Ala Ile Asn Phe Arg Ser Gln Pro Ser Ala Ala Val Asn Ser Val Ser
145 150 155 160
Ser Asp Pro Thr Ser Pro Leu Gln Phe Ala Asp Gly Gln Asp Pro Met
165 170 175
Pro Val Ser His Pro Pro
180

<210> 30201
<211> 190
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (160)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30201
Ser Tyr Phe Asn Pro Ser Ile Ser Ser Cys Phe Ser His Phe Ser Val
1 5 10 15
Trp Ile His Ser Arg Gln Lys Val Val Ser Ala Asp Arg Leu Thr Ser
20 25 30
Pro Thr Ser Phe Arg Ser Leu Gly Lys Ala Thr Gln Leu Thr Pro Asn
35 40 45
Pro Arg Arg Ala His Gln His Pro Gln Cys Leu Pro Ser Arg Pro Ile
50 55 60
Pro Glu Arg Asp Arg Leu Arg Tyr Leu Gly Pro Leu Thr Arg Gln Pro
65 70 75 80
Ser His Arg Pro His Pro Ala Ala Pro Arg Pro Ala Cys Pro Arg Pro
85 90 95
Asn Arg Arg Ser Pro Ile Arg Arg Arg Gly Arg Arg Arg Lys Lys Pro
100 105 110
Arg Pro Arg Cys Gly Glu Gly Ala Gly Ala Thr His Gly Gly Arg Cys
115 120 125
Arg Val Cys Thr Pro Ala Asp Thr Gly Thr Gly Gly Glu Leu Ser Gly
130 135 140
Glu Cys Leu Gly Ala Gly Pro Gly Gly Asp Gly Ala Ala Gly Ser Xaa
145 150 155 160
Pro Glu Arg Gly Gly Ala Gly Gly Leu Asp Glu Ala Ser Gly Glu Phe
165 170 175
Gly Gly Val Ser Phe Tyr Leu Ser Phe Ile Gln Pro Phe Ser
180 185 190

<210> 30202
<211> 133
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (114)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30202
Leu Leu Ile Pro Ala Glu Leu Ile Asn Ile His Asn Ala Phe His Gln
1 5 10 15
Gly Gln Tyr Gln Asn Val Ile Asp Phe Asp Thr Ser Ala Leu Ser Pro
20 25 30
Asp Asn His Leu Thr Ala Arg Ile Leu Gln Leu Arg Ala Gln Leu Ala
35 40 45
Leu Gly Gln Thr Ala Glu Val Leu Ser Ala Val Glu Gly Glu Glu Glu
50 55 60
Lys Asn Pro Asp Leu Ala Ala Val Lys Ala Leu Ala Gln Leu Thr Ala
65 70 75 80
Gly Asp Ala Glu Ser Ala Leu Gln Leu Thr Gln Glu Leu Ala Glu Asn
85 90 95
Tyr Pro Glu Asn Ala Ser Val Gln Val Leu Gly Gly Thr Val Leu Gln
100 105 110
Ala Xaa Gly Arg Ser Glu Glu Ala Leu Ala Val Leu Thr Lys His Gln
115 120 125
Gly Asn Leu Glu Ala
130

<210> 30203
<211> 152
<212> PRT
<213> A.fumigatus

<400> 30203
Arg Ser Leu Gly Thr Val Leu Leu Leu Ser Ser Asn Arg Asn Glu Pro
1 5 10 15
Leu Gly Leu Arg His Gln Gln Arg Arg Thr Ser Ala Ser Ser Leu Pro
20 25 30
Asn Val Ile Pro Gly Ser Arg Ser Ser Ser Arg Thr Thr Ala Pro Gln
35 40 45
Pro Lys Lys Thr Ala Asp Gly Arg Ile Val Leu Asn Pro Gln Pro Asp
50 55 60
Asp Ser Val Asn Asp Pro Leu Asn Trp Pro Met Trp Arg Arg Asp Ala
65 70 75 80
Ala Leu Leu Ser Leu Gly Phe Tyr Cys Leu Met Gly Gly Gly Met Thr
85 90 95
Pro Ile Leu Ala Ala Gly Phe Asn Gln Val Ser Glu Ser Tyr Gly Val
100 105 110
Ser Thr Gln Lys Val Ala Tyr Thr Thr Gly Leu Tyr Met Leu Gly Leu
115 120 125
Gly Val Gly Ser Val Ile Met Ser Pro Thr Ala Ile Leu Trp Gly Lys
130 135 140
Arg Pro Val Tyr Leu Leu Gly Ala
145 150

<210> 30204
<211> 86
<212> PRT
<213> A.fumigatus

<400> 30204
Gly His His Gly Cys Leu Gly Trp Asp Pro Ser Asp Leu Gln Gly Gln
1 5 10 15
Ala Ser Gly Tyr Val Ala Ile Ser Asp Leu Ser Arg Leu Thr Tyr Ser
20 25 30
Asn Asp Val Ala Ala Ala Gln Leu Gln Pro Tyr Val Glu Ser Ile Phe
35 40 45
Gln Leu Leu His Ile Ile Ser Gln Asp Met Ser Arg Ser Glu Gly Leu
50 55 60
Met Arg Ala Ser Met Gly Val Leu Gly Tyr Gly Phe Ser Val Ser Ser
65 70 75 80
Phe Phe Leu Pro Ile Phe
85

<210> 30205
<211> 193
<212> PRT
<213> A.fumigatus

<400> 30205
Gly Ala Gln Leu Val Arg His Gln Arg Arg Glu Arg Gln Pro Ala Pro
1 5 10 15
Gly Arg Asp Thr Val Arg Cys Tyr Asp Pro Ala Ser Gly Thr Asp His

```
            20                  25                  30
Ser His Ala Thr Thr Gly Arg Gln Cys Arg Gly Ser Tyr His Pro Arg
        35                  40                  45
Gly Asp Ala Asn Leu Ile Asp Gln Cys Thr Pro Gly Lys Asp Ser Arg
    50                  55                  60
Cys Ala Ser Ala Val Tyr Pro Leu Leu Thr Arg Trp Gln Ala Ile Val
65                  70                  75                  80
Gln Arg Leu Glu Thr Glu Ile Lys Pro Gln Ala Asp Arg Ile Met His
                85                  90                  95
Val Met Leu Gln Val Leu Ser Thr Val Pro Pro Lys Ser Ser Val Pro
            100                 105                 110
Asp Val Val Phe Ala Thr Val Gly Ala Ile Ala Ser Ala Leu Glu Glu
        115                 120                 125
Glu Phe Val Lys Tyr Met Glu Ser Phe Thr Pro Phe Leu Tyr Asn Ala
    130                 135                 140
Leu Gly Asn Gln Glu Glu Pro Ala Leu Cys Ser Met Ala Ile Gly Leu
145                 150                 155                 160
Val Ser Asp Ile Ala Arg Ala Leu Asn Glu Lys Val Gln Pro Tyr Cys
                165                 170                 175
Asp Ala Phe Met Asn Tyr Leu Leu Asn Asn Leu Arg Val Arg His Gln
            180                 185                 190
Gly
```

<210> 30206
<211> 91
<212> PRT
<213> A.fumigatus

<400> 30206

```
Glu Glu Ser Leu Ala Asn Ile Ala Ser Gln Ser Ala Thr Asn Gln Leu
1               5                   10                  15
Lys Pro Ala Ile Leu Glu Thr Phe Gly Asp Ile Ala Gln Ala Ile Gly
            20                  25                  30
Thr Gln Phe Asp Val Tyr Leu Pro Val Val Ala Gln Val Leu Gln Gln
        35                  40                  45
Ala Ser Ala Val Thr Ala Ser Thr Asp Val Thr Met Glu Met Leu Asp
    50                  55                  60
Tyr Ile Val Ser Leu Arg Glu Gly Ile Met Asp Ala Trp Gly Gly Ile
65                  70                  75                  80
Leu Leu Thr Tyr Lys Gly Lys Pro Gln Gly Thr
                85                  90
```

<210> 30207
<211> 168
<212> PRT
<213> A.fumigatus

<400> 30207

```
Glu Ala Ala Tyr Ala Leu Gly Arg Val Cys Asp Phe Cys Ser Glu Thr
1               5                   10                  15
Leu Asp Pro Asp Val His Leu Gln Pro Leu Ile Thr Cys Leu Phe Asn
            20                  25                  30
Gly Leu Ala Ser Ser Pro Lys Ile Ala Ser Ser Cys Cys Trp Ala Leu
        35                  40                  45
Met Asn Val Ala Asp Arg Phe Ala Gly Asp Val Gly Ala His Thr Asn
```

```
    50                  55                  60
Pro Leu Ser Lys His Phe Gln Asp Ser Val Lys Ser Leu Leu Thr Leu
65                  70                  75                  80
Thr Glu Arg Gln Asp Ala Asp Asn Gln Leu Arg Thr Ala Gly Tyr Glu
                85                  90                  95
Val Leu Asn Ser Phe Val Thr Asn Ala Ala Asn Asp Ser Leu Pro Leu
            100                 105                 110
Val Ala Thr Leu Ser Asp Val Met Ile Gln Arg Leu Glu Gln Thr Ile
        115                 120                 125
Pro Met Gln Gln Gln Val Val Ser Val Glu Asp Arg Ile Thr Leu Glu
    130                 135                 140
Glu Met Gln Thr Ser Leu Thr Ser Val Leu Leu Val Arg Ile Pro Asp
145                 150                 155                 160
Ala Pro Arg Arg Tyr Ile His Cys
                165
```

<210> 30208
<211> 65
<212> PRT
<213> A.fumigatus

<400> 30208

```
Arg Pro Phe Ser Asp Leu Ala Asp Thr Phe Pro Asn Gly Glu Phe Ala
1               5                   10                  15
Ser Phe Phe Arg Asn Asp Trp Val Thr Ala Leu Val Arg Glu Thr Arg
            20                  25                  30
Asn Asn Arg Glu Tyr Ser Ala Arg Thr Ile Asp Thr Ala Arg Trp Thr
        35                  40                  45
Arg Glu Gln Val Lys Arg Gln Val Asn Met Ser Thr Ala Ala Ala Met
    50                  55                  60
Ala
65
```

<210> 30209
<211> 134
<212> PRT
<213> A.fumigatus

<400> 30209

```
Leu Asn Val Lys Glu Ser Met Lys Tyr Ala Ser Ile Arg Met Lys Glu
1               5                   10                  15
Ile Tyr Asp Trp Asn Tyr Lys Leu Ile Lys Phe Arg Val Ser Asp Gln
            20                  25                  30
Val Tyr Val Gln Leu His Cys Gly Tyr Ser Leu Leu Thr Lys Gln Ala
        35                  40                  45
Asn His Lys Leu Gln Leu Gln Asn Ala Gly Leu Phe Arg Val Leu Glu
    50                  55                  60
Cys Val Gly Arg Leu Thr Tyr Cys Ile Lys Leu Pro Ser Thr Trp Lys
65                  70                  75                  80
Ile His Leu Val Leu Ser Val Ala His Leu Glu Pro Ala Pro Ala Thr
                85                  90                  95
Pro Asn Pro Phe His His Glu Leu Pro Lys Pro Pro Ala Val Val Asp
            100                 105                 110
Ala Glu Val Tyr Pro Gly Glu Asp Asn Ile Tyr Lys Val Lys His Leu
        115                 120                 125
Leu Asp Lys Tyr Thr Val
```

130

<210> 30210
<211> 77
<212> PRT
<213> A.fumigatus

<400> 30210
Leu Ile Leu Leu Leu Thr Ile Arg Leu Lys Tyr Ser Ile Ser Tyr Asn
1 5 10 15
Pro His Leu Thr Val Cys Phe Ser Val Pro Ile Leu Thr Pro Leu Gly
20 25 30
Thr Tyr Ile Leu Thr Leu Ile Tyr Tyr Ile Lys Gly Leu Gly Val Ile
35 40 45
Val Tyr His Ile Gln Ile Asn Asn His His Thr Asn Leu Leu Ile Pro
50 55 60
Pro Ile His Ile Val Ile Gln Pro Ile Leu Phe Leu Ser
65 70 75

<210> 30211
<211> 88
<212> PRT
<213> A.fumigatus

<400> 30211
Arg Arg Glu Thr Val Glu Leu Phe His Phe Phe Leu Leu Lys Leu Ile
1 5 10 15
Gly Ala His Leu Ile Phe Glu Pro Ile Ala Pro Ser Thr His Tyr Pro
20 25 30
Thr Ser Ser Ile Gly Gln Asp Thr His Glu Ser Trp Leu Lys Cys Phe
35 40 45
Lys Ile Asn Ala Ala Tyr His Lys Asn Leu Cys Asn Cys Tyr Asn Ser
50 55 60
Ser Trp Lys Asn Leu Ala Val Leu Asp Ile Gln Lys Gln Gln Cys Tyr
65 70 75 80
Arg Trp Ser Met Val His Lys Thr
85

<210> 30212
<211> 185
<212> PRT
<213> A.fumigatus

<400> 30212
Thr Glu Leu Val Ser Ile Phe Val Glu Asp Cys Leu Thr Tyr Leu Ala
1 5 10 15
Glu Arg Leu Glu His Leu His Cys Ser Leu Lys Thr Asn Thr Ser Ile
20 25 30
Arg Asp Gly Asp Thr Ile Leu Glu Leu Leu His Leu Val Leu Arg Leu
35 40 45
Trp Arg Ser Leu Leu Thr Leu Val Asp Ile Thr Leu Asn His Asp Ser
50 55 60
Gly Asn Gly Arg Leu Pro Ser Ser Asp Leu Gly Gly Asn Cys Ile Asp
65 70 75 80
His Leu Gly Leu Val Thr Val Ile Leu Leu Ala Val Ala Val Arg Arg
85 90 95

```
Ile Asp His Asp Thr Arg Leu Glu Ile Leu Arg Val Ser Leu Asp Cys
            100                 105                 110
Gly Arg Asp Arg Arg Ser Val Glu Val Gly Ala Ala Val Ser Ser Thr
        115                 120                 125
Val Asp Asn Val Lys Met Arg Ile Ser Phe Arg Val Asp Asp Gly Cys
    130                 135                 140
Lys Thr Leu Phe Gly Asp Thr Cys Arg Gln Ser Ala Ala Val Asn Gly
145                 150                 155                 160
Ser Pro Arg Thr Leu Leu Ala Asp Leu Lys Met Ser Glu Glu Arg Arg
                165                 170                 175
Arg Ser Ser Ser His Arg Met Arg Trp
            180                 185
```

<210> 30213
<211> 173
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (61),(99)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30213

```
Gly Glu Glu Ala Leu Phe Ile Ala Ser His Ala Met Val Ile Leu Pro
1               5                   10                  15
Glu Asp Pro Phe Leu Lys Pro Met Gly Asn Asp Arg Pro Glu Thr Asn
            20                  25                  30
Cys Arg Trp Thr Cys Asp Ser Val Val Arg Ala Pro Thr Ala Pro Gln
        35                  40                  45
Glu Tyr Arg Ser Ala Arg Asn Cys Arg Glu Met Val Xaa Ser Thr Ser
    50                  55                  60
Gln Ala Thr Gly Arg Pro Arg Thr Val Met Ser Asn Ser Asn Tyr Gly
65                  70                  75                  80
Gln Pro Ala Ala Asn Gly Ser Thr Asp Leu Pro Val Ser Gly Met Arg
                85                  90                  95
Arg Leu Xaa Arg Tyr Phe Gln Ser His Val Asp Leu Val Gly Gly Val
            100                 105                 110
Asp Ile Arg Ile Val Glu Lys Ala Phe Pro Ala His Arg Ile Pro Arg
        115                 120                 125
Phe Phe Lys Val Gly Thr His Asp Asp Gln Lys Ile Ile Val Pro Ser
    130                 135                 140
Val Leu Leu Asn Gly Gly Leu Gln Ala Asp Ser Val Val Ala Cys His
145                 150                 155                 160
Val Gly Ile Met Tyr Gly Ala Gly Pro His Asp Asp Gln
                165                 170
```

<210> 30214
<211> 149
<212> PRT
<213> A.fumigatus

<400> 30214

```
Leu Ser Ala Gly Val Thr Glu Gln Gly Leu Ala Ala Ile Val His Thr
1               5                   10                  15
Lys Gly Asn Pro His Leu His Val Ile His Arg Gly Gly Asp Ser Gly
```

```
            20                  25                  30
Pro Asn Phe Asp Ala Ala Ser Val Ala Ser Thr Ile Lys Ala Tyr Pro
        35                  40                  45
Lys Asn Leu Gln Pro Ser Ile Met Ile Asp Ala Ser His Gly Asn Ser
    50                  55                  60
Gln Lys Asp Tyr Arg Asn Gln Pro Lys Val Ile Asp Ala Val Ala Ser
65                  70                  75                  80
Gln Ile Ala Ala Gly Glu Pro Ala Ile Thr Gly Val Met Ile Glu Ser
                85                  90                  95
Asn Ile Asn Glu Gly Lys Gln Ala Ala Pro Gln Ser Glu Asp Glu Val
            100                 105                 110
Gln Lys Leu Lys Tyr Gly Val Ser Ile Thr Asp Gly Cys Val Gly Phe
        115                 120                 125
Glu Thr Thr Val Lys Met Leu Glu Thr Leu Ser Gln Val Arg Glu Thr
    130                 135                 140
Val Leu Tyr Lys Asp
145
```

<210> 30215
<211> 149
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (149)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 30215
Gln Asp Ser Ser Pro His Thr Arg Pro His Leu Leu Ala Gly Ser Ile
1               5                   10                  15
Val Pro Glu Pro Ser Ser Pro Leu Lys Asp Ser Asn Val Ala Ala Tyr
            20                  25                  30
Glu Pro Leu Ile Pro Pro Ala Leu Leu Leu His Glu Ile Pro Val Thr
        35                  40                  45
Pro Ala Ser Arg Arg Thr Ile Glu Ser Ala Arg Gln Gly Ala Ala Arg
    50                  55                  60
Ile Ile Gln Arg Asn Gly Asp Asp Arg Leu Leu Val Ile Val Gly Pro
65                  70                  75                  80
Cys Ser Ile His Asp Thr Asp Val Ala Arg Asp Tyr Ala Val Arg Leu
                85                  90                  95
Gln Ala Ala Ile Gln Glu His Gly Trp Asp Asn Asp Leu Leu Ile Val
            100                 105                 110
Met Arg Ala Tyr Leu Glu Lys Pro Arg Asn Thr Val Gly Trp Lys Gly
        115                 120                 125
Phe Leu Tyr Tyr Pro Asn Ile Asp Ser Thr Asn Gln Val Asn Met Gly
    130                 135                 140
Leu Lys Val Pro Xaa
145
```

<210> 30216
<211> 165
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (17)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30216
Leu Leu Phe Asp Ile Thr Val Leu Gly Leu Pro Val Ala Cys Glu Val
1 5 10 15
Xaa Asp Thr Ile Ser Arg Gln Phe Leu Ala Asp Leu Tyr Ser Trp Gly
20 25 30
Ala Val Gly Ala Arg Thr Thr Glu Ser Gln Val His Arg Gln Leu Val
35 40 45
Ser Gly Leu Ser Phe Pro Ile Gly Phe Lys Asn Gly Ser Ser Gly Asn
50 55 60
Ile Thr Ile Ala Cys Asp Ala Met Lys Ser Ala Ser Ser Pro His Ser
65 70 75 80
Phe Leu Gly Pro Leu Val Lys Ser Ala Ala Ile His Leu Leu Leu Leu
85 90 95
Thr Val Cys Arg Cys His Arg Thr Arg Ser Cys Ser His Arg Pro His
100 105 110
Glu Arg Lys Ser Ser Ser Ser Arg Tyr Pro Pro Trp Arg Arg Gln Arg
115 120 125
Pro Gln Leu Arg Arg Cys Val Cys Arg Val His Asn Gln Gly Leu Pro
130 135 140
Glu Glu Ser Pro Thr Glu Tyr His Asp Arg Cys Val Ala Arg Gln Gln
145 150 155 160
Pro Lys Gly Leu Pro
165

<210> 30217
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30217
Met Ser Trp Ser Pro Leu Leu Arg Asn Ala Leu Arg Ser Gln Ser Arg
1 5 10 15
Ser Thr Phe Ile Arg Val Pro Gln Arg Thr Phe Ser Ser Ser Ile Ser
20 25 30
Gln Met Ala Pro Phe Thr Leu Tyr Thr His Ala Gly Lys Ala Phe Phe
35 40 45
Pro Val Asp Gln Glu Val Phe Asp Glu Trp Leu Gln Ala Pro Asp Pro
50 55 60
Thr Leu Ser Ser Gly His Trp Pro
65 70

<210> 30218
<211> 296
<212> PRT
<213> A.fumigatus

<400> 30218
Leu Phe Asp Ser Val Asp Arg Asn Lys Tyr Gln Ile Met Leu Pro Leu
1 5 10 15
Pro Pro Lys Ile Asp Pro Ser Val Thr Met Met Thr Val Glu Asp Lys
20 25 30
Pro Asp Val Thr Tyr Gly Asp Val Gly Gly Cys Lys Glu Gln Ile Glu

```
        35                  40                  45
Lys Leu Arg Glu Val Val Glu Met Pro Leu Leu Ser Pro Glu Arg Phe
    50                  55                  60
Val Asn Leu Gly Ile Asp Pro Pro Lys Gly Ala Leu Leu Tyr Gly Pro
65                  70                  75                  80
Pro Gly Thr Gly Lys Thr Leu Cys Ala Arg Ala Val Ala Asn Arg Thr
                85                  90                  95
Asp Ala Thr Phe Ile Arg Val Ile Gly Ser Glu Leu Val Gln Lys Tyr
            100                 105                 110
Val Gly Glu Gly Ala Arg Met Val Arg Glu Leu Phe Glu Met Ala Arg
        115                 120                 125
Thr Lys Lys Ala Cys Ile Ile Phe Phe Asp Glu Ile Asp Ala Val Gly
    130                 135                 140
Gly Ala Arg Phe Asp Asp Gly Ala Gly Gly Asp Asn Glu Val Gln Arg
145                 150                 155                 160
Thr Met Leu Glu Leu Ile Thr Gln Leu Asp Gly Phe Asp Ala Arg Gly
                165                 170                 175
Asn Ile Lys Val Met Phe Ala Thr Asn Arg Pro Ser Thr Leu Asp Pro
            180                 185                 190
Ala Leu Met Arg Pro Gly Arg Ile Asp Arg Lys Ile Glu Phe Ser Leu
        195                 200                 205
Pro Asp Val Glu Gly Arg Ala Asn Ile Leu Arg Ile His Ala Lys Ser
    210                 215                 220
Met Ser Val Glu Arg Asp Ile Arg Trp Glu Leu Ile Ser Arg Leu Cys
225                 230                 235                 240
Pro Asn Ala Thr Gly Ala Glu Leu Arg Ser Val Ala Thr Glu Ala Gly
                245                 250                 255
Met Phe Ala Ile Arg Ala Arg Arg Lys Val Ala Thr Glu Lys Asp Phe
            260                 265                 270
Leu Ala Ala Val Asp Lys Val Ile Lys Gly Asn Leu Lys Phe Asn Ser
        275                 280                 285
Thr Ala Thr Tyr Met Gln Tyr Asn
    290                 295
```

<210> 30219
<211> 132
<212> PRT
<213> A.fumigatus

<400> 30219

```
His Ser Ser Thr Gln Asp Ile Arg Arg Arg Ser Ile Arg Asp Arg Ile
1               5                   10                  15
Lys Glu Ala Arg Lys Thr Asp Gln Gly Gln Thr Ser Glu Cys Lys Arg
            20                  25                  30
Glu Asp Trp Arg Gln Gly Leu Leu Asn Leu Val Leu Cys Tyr Leu Arg
        35                  40                  45
Thr Leu Ala Asp Phe Arg Gln Glu Ser Asp Thr Gly Leu Ala Pro Pro
    50                  55                  60
His Ile Trp Asp Val Ala Ala Asp Arg Gln Arg Met Ala Glu Glu Gln
65                  70                  75                  80
Pro Leu Gln Val Ala Arg Cys Thr Lys Ile Ile Ser Asp Glu Lys Asp
                85                  90                  95
Pro Asp Lys Ser Lys Tyr Val Ile Asn Val Lys Gln Ile Ala Lys Phe
            100                 105                 110
Val Val Asn Leu Gly Glu Arg Val Ser Pro Thr Asp Ile Glu Glu Gly
        115                 120                 125
```

Met Arg Val Gly
130

<210> 30220
<211> 165
<212> PRT
<213> A.fumigatus

<400> 30220
His Thr Leu Gly Met Asn Ala Glu Asp Val Gly Ala Thr Phe His Ile
1 5 10 15
Gly Lys Arg Glu Phe Asp Leu Ala Val Asn Thr Thr Arg Thr His Gln
20 25 30
Gly Arg Ile Gln Gly Arg Arg Ser Val Gly Cys Lys His Asp Leu Asn
35 40 45
Val Thr Thr Gly Ile Lys Thr Ile Gln Leu Cys Asn Gln Leu Lys His
50 55 60
Ser Thr Leu Asn Leu Val Val Thr Thr Ser Ser Ile Ile Glu Thr Ser
65 70 75 80
Thr Ala Asp Arg Val Asp Phe Val Lys Glu Asp Asp Ala Arg Leu Leu
85 90 95
Gly Thr Gly His Leu Lys Lys Phe Ser Asn His Ser Cys Thr Leu Thr
100 105 110
Asn Val Leu Leu Asn Gln Leu Ala Thr Asn Asn Thr Asp Glu Gly Gly
115 120 125
Val Arg Pro Val Ser Asp Cys Ser Ser Ala Glu Gly Leu Ala Gly Thr
130 135 140
Gly Arg Thr Val Gln Gln Arg Ala Leu Gly Arg Ile Asp Thr Glu Val
145 150 155 160
Asp Glu Ser Phe Arg
165

<210> 30221
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30221
Thr Asn Ser Leu Pro Ile Thr Arg Met Lys Val Ala Ser Val Arg Leu
1 5 10 15
Ala Thr Ala Arg Ala Gln Arg Val Leu Pro Val Pro Gly Gly Pro Tyr
20 25 30
Ser Ser Ala Pro Leu Gly Gly Ser Ile Pro Arg Leu Thr Asn Arg Ser
35 40 45
Gly Asp Ser Lys Gly Ile Ser Thr Thr Ser Leu Ser Phe Ser Ile Cys
50 55 60
Ser Leu His Pro Pro Thr Ser Pro
65 70

<210> 30222
<211> 79
<212> PRT
<213> A.fumigatus

<400> 30222
His Asp Phe Gly Cys Pro Val Val Gln Ala Leu Thr Pro Asp Thr Pro

```
1               5                   10                  15
Glu Lys Pro Lys Gln Phe Leu His Ile Val Ser Ile Met Gln Val Ser
            20                  25                  30
Ser Gln Phe Asp Leu Arg Leu Gly Asp Met Ala Thr Ser Phe Gly Leu
        35                  40                  45
Phe Gly Thr Thr Ala Thr Ile Ser Leu Gly Thr Asn Gly Lys Tyr Ile
    50                  55                  60
Tyr Ser Cys Pro Val Val Ser Ile Cys Ser Pro Val Thr Ile Ser
65                  70                  75
```

<210> 30223
<211> 461
<212> PRT
<213> A.fumigatus

<400> 30223

```
Ile Pro Leu Asp Gly Asn Ser Arg Ser Gln Leu Gly Leu Lys Pro Gly
1               5                   10                  15
Asn Val Arg Arg Phe Ile Pro Gly Val Ser Glu Val Arg Ser Arg Leu
            20                  25                  30
Lys Ser Val Thr Lys Ser Gly Val Ser Ile Phe Glu Gly Tyr Lys Glu
        35                  40                  45
His Val Arg Asp Leu Trp Phe Pro Arg Thr Asp Pro Pro His Tyr Leu
    50                  55                  60
Arg Ile Arg Glu Ser Pro Ser Glu Gly Pro Tyr Val Lys Asp Leu Thr
65                  70                  75                  80
Glu Val Thr Val Arg Asn Tyr Asn Glu Leu Met Lys Tyr Met Arg Lys
                85                  90                  95
Gly Asp Met Ser Arg Thr Val Ala Ser Thr Lys Met Asn Asp Thr Ser
            100                 105                 110
Ser Arg Ser His Ala Val Phe Thr Ile Thr Leu Lys Gln Ile His His
        115                 120                 125
Asp Leu Ser Thr Asp Glu Thr Thr Glu Arg Thr Ala Arg Ile Arg Leu
    130                 135                 140
Val Asp Leu Ala Gly Ser Glu Arg Ala Lys Ser Thr Glu Ala Thr Gly
145                 150                 155                 160
Gln Arg Leu Arg Glu Gly Ser Asn Ile Asn Lys Ser Leu Thr Thr Leu
                165                 170                 175
Gly Arg Val Ile Ala Ala Leu Ala Asp Pro Arg His Gly Arg Ser Gly
            180                 185                 190
Lys Arg Lys Gly Lys Asp Val Val Pro Tyr Arg Asp Ser Ile Leu Thr
        195                 200                 205
Trp Leu Leu Lys Asp Ser Leu Gly Gly Asn Ser Lys Thr Ala Met Ile
    210                 215                 220
Ala Cys Ile Ser Pro Ser Asp Tyr Glu Glu Thr Leu Ser Thr Leu Arg
225                 230                 235                 240
Tyr Ala Asp Gln Ala Lys Arg Ile Arg Thr Arg Ala Arg Ile Asn Gln
                245                 250                 255
Asp Gln Met Ser Ala Ala Glu Arg Asp Lys Gln Ile Ala Glu Met Ala
            260                 265                 270
Glu Thr Ile Arg Ala Leu Gln Leu Ser Val Ser Leu Ala Ala Ala Asn
        275                 280                 285
Arg Arg Glu Thr Glu Ile Gln Asn Glu Arg Leu Glu Val Tyr Gln Gln
    290                 295                 300
Lys Val Glu Lys Met Gln Arg Leu Met Glu Glu Thr Lys Met Val Ser
305                 310                 315                 320
```

```
Glu Cys Lys Ile Arg Gln Leu Gln Thr Glu Asn Glu Ala Leu Arg Asn
                325                 330                 335
His Leu Lys Leu Ala Leu Asp Ser Leu Lys Asn Pro Ile Pro Leu Val
            340                 345                 350
Thr Ile Glu Lys Arg Lys Ser Gly Leu Ser Ala Trp Gly Glu His Asn
        355                 360                 365
Gly Asn Thr Asp Asp Gly Ile Asn Glu Thr Arg Pro Gln Ser Pro Ile
    370                 375                 380
Ser Asp Ala Gly Pro Glu Pro Asp Leu Ile Trp Glu Asp Asp Asp Thr
385                 390                 395                 400
Ile Leu Ile Glu Ala Ser Gln Val Lys Ala Gln Glu Met Gln Ala Asp
                405                 410                 415
Met Glu Asp Leu Leu Val Asp Leu Asn Met Phe Lys Arg Lys Leu Ala
            420                 425                 430
Thr Asp His Glu Arg Phe Arg Phe Ile Gln Lys His Glu Thr Arg Arg
        435                 440                 445
Arg Arg Arg Ala Leu Gln Val Val Leu Ala Asn Asn Arg
    450                 455                 460
```

<210> 30224
<211> 77
<212> PRT
<213> A.fumigatus

<400> 30224

```
Met Ile Ala Gln Arg Phe Ile Phe Gly Leu Gln Leu Pro Asp Leu Ala
1               5                   10                  15
Leu Thr Asp His Leu Gly Leu Phe His Lys Ser Leu His Leu Leu Tyr
            20                  25                  30
Leu Leu Leu Val Asp Phe Lys Ser Leu Val Leu Asn Leu Gly Leu Pro
        35                  40                  45
Pro Val Ser Ser Gly Gln Ala Tyr Ala Glu Leu Lys Gly Ser Asp Ser
    50                  55                  60
Phe Arg His Phe Cys Asn Leu Leu Ile Thr Leu Arg Gly
65                  70                  75
```

<210> 30225
<211> 186
<212> PRT
<213> A.fumigatus

<400> 30225

```
Ser Pro Leu Leu Thr Met Ser Asp Asn Ser Ala Lys Arg Gly Thr Gly
1               5                   10                  15
Glu Lys Ser Pro Asn Asp Pro Arg Lys Gln Ala Asp Ser Arg Lys Ser
            20                  25                  30
Asp Pro Glu Ser Gln Asn Ser Pro Ser Leu Ala Asn Arg Ile Gln Asn
        35                  40                  45
Ser Ala Ala Gly Leu Ala Trp Ser Ala Phe Asn Ala Ala Gly Ser Ser
    50                  55                  60
Ala Asp Ala Ala Gln Val Phe Gly Ser Gly Ser Lys Ala Gly Pro Ser
65                  70                  75                  80
Ser Ser Ala Ser Ser Ser Ala Leu Ala Ala Ala Glu Gln Tyr Arg Glu
                85                  90                  95
Thr Ala Thr Pro Thr Ser Ser Asn Arg Val Leu Ala Asn His Pro Ala
            100                 105                 110
```

```
Ala Ser Phe Arg Ser Ser Ser Ala Gly Gln Gln Gly Ala Phe Glu Leu
        115                 120                 125
Pro Pro Leu Thr Glu Asp Glu Phe Gln Cys Thr Tyr Asp Glu Ser Gln
    130                 135                 140
Val His Asp Arg Ile Asp Phe Pro Pro Ser Thr Glu Thr Glu Thr Asp
145                 150                 155                 160
Thr Glu Lys Gly Lys Gly Lys Ala Ser Glu Ala Leu Ser Ala Val Phe
                165                 170                 175
Thr Pro Glu Leu Ala Gly Thr Arg Leu Cys
            180                 185
```

<210> 30226
<211> 221
<212> PRT
<213> A.fumigatus

<400> 30226

```
Leu His Cys Leu Arg Tyr Arg Val Ala Ala Trp Asp Ala Leu Pro Cys
1               5                   10                  15
Phe His Val Leu Asp Trp Asp Val Arg Asn Pro Leu Cys Phe Gly Asp
            20                  25                  30
Ser Tyr Thr Cys Ala Asp Cys Arg Ser Trp Ser Leu Ile Met His Trp
        35                  40                  45
Ile Leu Ala Ile Thr Asn Ala Cys Asn Gly Leu Thr Tyr Val Thr Arg
    50                  55                  60
Phe Ser Cys Asp Ile Phe Gly Phe Tyr Val Ala Phe Ile Tyr Leu Gln
65                  70                  75                  80
Lys Gly Ile Gln Val Leu Thr Arg Gln Trp Val Gln Val Gly Glu Ala
                85                  90                  95
Ser Ala Tyr Leu Ser Ile Met Val Ala Leu Leu Val Leu Met Ser Gly
            100                 105                 110
Trp Val Cys Gly Gln Leu Gly Ser Ser Thr Leu Phe Gln Arg Tyr Val
        115                 120                 125
Arg Lys Phe Leu Glu Asp Tyr Gly Thr Pro Leu Thr Ile Ile Phe Phe
    130                 135                 140
Thr Gly Phe Val His Ile Gly His Met Arg Asp Val Glu Val Ala Thr
145                 150                 155                 160
Leu Pro Thr Ser Lys Ala Phe Phe Pro Thr Ala Asp Arg Asp Trp Leu
                165                 170                 175
Val Asp Phe Trp Asn Ile Ser Val Gly Asp Val Phe Leu Ala Ile Pro
            180                 185                 190
Phe Ala Leu Leu Leu Thr Ile Leu Phe Tyr Phe Asp His Asn Gly Gly
        195                 200                 205
Phe Ser Leu Ser Glu Gly Tyr His Pro Asn His Ser Gly
    210                 215                 220
```

<210> 30227
<211> 75
<212> PRT
<213> A.fumigatus

<400> 30227

```
Gly Pro Ser Cys Leu Cys Phe Gly Gly Cys Cys Phe Cys Gly Leu Cys
1               5                   10                  15
Cys Ala Ala Phe Gly Tyr Cys Trp Cys Tyr Trp Trp Val Cys Ser Asp
            20                  25                  30
```

```
Ser Gly Gly Cys Ala His Asp Ala His Leu Tyr Cys Ala Gly Pro Ile
        35                  40                  45
Thr Val Phe Asn Tyr Thr Val Tyr Asp Ile Val Ser Pro Arg Gly Thr
    50                  55                  60
Pro Tyr Leu Ala Phe Met Cys Trp Ile Gly Met
65                  70                  75
```

<210> 30228
<211> 148
<212> PRT
<213> A.fumigatus

<400> 30228

```
Ser Val Gln Val Tyr His Cys Thr Pro Tyr Lys Met Gln Arg Asn Arg
1               5                   10                  15
Arg Ala Ser His Thr Ser Ala Arg Glu Glu Asp Thr Val Phe Ser Arg
            20                  25                  30
Ser Asn Leu His Pro Thr Thr Ser His Gly Ser Val His Ser Ser His
        35                  40                  45
Ser Gln Arg Asn Ser Trp Gln Ser Arg Pro Pro His Ala Arg Arg Gly
    50                  55                  60
Ser Gly Gln Ser His Ser Gln Arg Ser Gln His Gln His Gly Gly Val
65                  70                  75                  80
Ser His Gly Gln Gln Gly Ala Glu Gly Leu Ser Gly Val Gln Thr Gly
                85                  90                  95
Ala Ser Ser Ala Arg Thr Ser Arg Trp Trp Arg Val Arg Leu Phe Arg
            100                 105                 110
Gly Met Ile Lys Asp Ile Lys Arg Arg Ala Pro Phe Tyr Trp Ser Asp
        115                 120                 125
Trp Thr Asp Ala Trp Asp Tyr Arg Val Ile Pro Ala Thr Val Tyr Met
    130                 135                 140
Tyr Phe Ala Lys
145
```

<210> 30229
<211> 124
<212> PRT
<213> A.fumigatus

<400> 30229

```
Gly Phe Phe Phe Cys Pro Gly Tyr Cys Gly Val Glu Glu Asn Thr Asp
1               5                   10                  15
Trp Cys Ser Ile Leu Pro Ala Leu Ala Phe Ser Leu Asp Met Phe Glu
            20                  25                  30
Lys Thr Lys Gln Ser Tyr Gly Val Asn Glu Val Leu Leu Ala Ser Val
        35                  40                  45
Leu Gly Ala Val Val Phe Ala Val Phe Ala Ala Gln Pro Leu Val Ile
    50                  55                  60
Val Gly Val Thr Gly Gly Phe Val Pro Ile Leu Gly Ala Val Leu Met
65                  70                  75                  80
Met Leu Thr Cys Ile Ala Gln Val Arg Leu Arg Cys Leu Ile Thr Leu
                85                  90                  95
Phe Thr Ile Ser Cys Arg Arg Val Gly Arg Pro Thr Leu Leu Ser Cys
            100                 105                 110
Val Gly Leu Gly Cys Lys Lys Pro Pro Leu Leu Trp
        115                 120
```

<210> 30230
<211> 89
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (48)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30230
Trp Leu Thr Tyr Cys Leu Val Ser Ser Leu Ile Ala Gln Gly Thr Glu
1 5 10 15
Phe Pro Leu Arg Lys Pro Ala Gly Phe His Trp Asp Ile Trp Leu Leu
20 25 30
Gly Leu Thr Thr Phe Ile Ala Gly Ile Leu Gly Leu Pro Phe Pro Xaa
35 40 45
Gly Leu Ile Pro Gln Ala His Phe His Thr Ala Ala Gly Cys Val Thr
50 55 60
Gly Ala Leu Ala Ala Val Leu Thr Thr Arg Lys Lys Gly Arg Lys Arg
65 70 75 80
Arg Lys Glu Lys Arg Lys Lys Lys Lys
85

<210> 30231
<211> 204
<212> PRT
<213> A.fumigatus

<400> 30231
Gly Gly Cys Gln Leu Arg Leu Val Ser Asn Tyr Ile Pro Gly Ser Arg
1 5 10 15
Val Glu Asn Ile Tyr Arg Asp Leu Asn Val Ala Tyr Glu Pro Ser Ser
20 25 30
Gly Val Gly Tyr Leu Pro Cys Lys Leu Ala Gly Asn Asn Ile Asn Ile
35 40 45
Thr Tyr Thr Phe Ser Ser Pro Asn Ile Thr Val Met Ile Asp Glu Leu
50 55 60
Leu Leu Asp Ala Gly Asp Leu Arg Phe Arg Asp Gly Ala Arg Ala Cys
65 70 75 80
Ile Phe Gly Ile Val Pro Ala Gly Asp Ser Thr Ala Val Leu Gly Asp
85 90 95
Thr Phe Leu Arg Ser Ala Tyr Val Val Tyr Asp Ile Ala Asn Asn Glu
100 105 110
Ile Ser Ile Ala Asn Thr Asn Phe Asn Ser Thr Glu Asp Asn Ile Leu
115 120 125
Glu Ile Gly Val Gly Pro Asp Ser Val Pro Ser Ala Thr Gln Val Ser
130 135 140
His Pro Val Thr Ser Val Val Ala Asp Gly Ser Gly Ala Arg Ile Gly
145 150 155 160
Ala Pro Thr Gly Ala Ser Ser Thr Thr Val Pro Ser Ile Ser Ser Ala
165 170 175
Gly Ala Leu Ser Ala Gly Val Ala Arg Ala Asp Lys Gln Tyr Leu Ala
180 185 190
Ile Ala Leu Ile Ala Val Trp Phe Val Leu Gly Leu

195 200

<210> 30232
<211> 143
<212> PRT
<213> A.fumigatus

<400> 30232
Ser Ile Gly Ser Leu Gln Gly Gly Lys Gly Phe Thr Glu Glu Glu Arg
1 5 10 15
Ile Leu Ile Leu Glu Arg Val Arg Ser Asn Asn Ala Gly Ser Glu Asn
20 25 30
Arg His Phe Lys Trp Tyr Gln Val Arg Glu Ala Leu Cys Ser Tyr His
35 40 45
Phe Trp Phe Ile Phe Phe Leu Ser Met Leu Ser Ser Val Gly Ser Gly
50 55 60
Ala Val Thr Thr Phe Gly Ser Ile Ile Phe Asn Gly Met Gly Phe Thr
65 70 75 80
Val Phe Gln Ser Leu Leu Leu Asn Met Pro Ile Gly Ala Leu Ala Phe
85 90 95
Ile Cys Ile Leu Gly Ser Gly Tyr Ile Gly Arg Lys Val Pro Asn Ser
100 105 110
Arg Leu Tyr Val Leu Ser Gly Ala Cys Val Pro Val Ile Leu Gly Ser
115 120 125
Cys Leu Met Tyr Val Ser Phe Asn Val Asp Thr Gly Asn Ile Thr
130 135 140

<210> 30233
<211> 68
<212> PRT
<213> A.fumigatus

<400> 30233
Val Arg Trp Gln Leu Pro Ser Ser Gln Arg Ala Gly Arg Ile Ile Gly
1 5 10 15
Phe Tyr Leu Ile Asn Phe Phe Ser Ser Ala Trp Val Gln Cys Ile Ala
20 25 30
Met Gly Thr Ser Asn Val Ala Gly His Thr Lys Lys Ala Thr Met Ala
35 40 45
Ala Gly Thr Phe Val Gly Tyr Ser Leu Gly Asn Ile Ile Gly Pro Leu
50 55 60
Thr Phe Asp Ala
65

<210> 30234
<211> 476
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (475)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30234
Ala Thr Arg Lys Glu Lys Thr Pro Gln Lys Phe Cys Val Ala Glu Gln

```
1               5                  10                  15
Pro Ser Leu Val Gly Gln Lys Asp Ile Phe Gly Ile Lys Ala Thr Ser
            20                  25                  30
Ala Lys Pro Glu Lys Leu Ser Val Ile Ile Pro Ser Ser Ala Pro Pro
        35                  40                  45
Gly His Leu Ala Asn His Ser Thr Gln Pro Ser Leu Asp His Ala Val
    50                  55                  60
Pro Val Arg His Lys Pro Ser Pro Asn Ser Ser His Ser Lys Thr Ala
65                  70                  75                  80
Ser Lys Val Arg Ala Gln Ala Val Glu Gln Gly Pro Arg Glu Phe Ala
                85                  90                  95
Ser Leu Arg Asn Thr Val Asn Thr Gln Asn Leu Pro Pro Pro Thr Pro
            100                 105                 110
Ile Asn Ala Ser Ala Ser Ser Pro Ser Thr Arg Tyr Ser Gly Ser Pro
        115                 120                 125
Gly Ile Trp Ser Arg Thr Ser Thr Pro Thr Ser Leu Ser Ser Tyr Ser
    130                 135                 140
Pro Gly Ile Ile His Ser Ala Lys Val Gly Pro Arg Phe Arg His Pro
145                 150                 155                 160
Ser Pro Ser Glu Ser Arg Leu Ser Ile Phe Ser Pro Ile Ile Leu Lys
                165                 170                 175
Ser Asp Ser Gln Asp Asp Pro Leu Asp Ser Gly Gly Asp Gly Phe Pro
            180                 185                 190
Ser Ile Thr Ala Gly Ala Gly Leu His Thr Leu Ser Met Ser Thr Lys
        195                 200                 205
Thr Gln Ser Asp Asn Pro Pro Asn Arg Asp Gly Ser Ala Lys Pro Ala
    210                 215                 220
Thr Pro Pro Glu Asn Gln Leu Pro Thr Lys Ser Ser Thr Gln Ser Ser
225                 230                 235                 240
Leu Pro Arg Met Thr Arg Ser Asn Leu Ala Glu Asn Ser Glu Ala Tyr
                245                 250                 255
Glu Glu Gln Ser Arg Gly Ala Ser Gly Asp Arg Gly Asn Leu Lys Gly
            260                 265                 270
Ser Ala Leu Lys Ser Glu Val Ser Gly Ser Gly His Val Pro Ser Arg
        275                 280                 285
Pro Ser Arg Glu Gly Thr His Arg Leu Glu Leu Glu Pro Ser Pro Val
    290                 295                 300
Ile Arg Ser Asn Leu Pro Pro Gly Ala Val Ala Ser His Arg Arg His
305                 310                 315                 320
Gly Ser Gly Ala Ser Ser Val Ala Leu Gly Arg Ser His Phe Ala Ser
                325                 330                 335
Asn Ala Cys Ala Ala Thr Ser Val Asp Ser Leu Gln Ser Arg Ser Ser
            340                 345                 350
Ala Arg Pro Pro Ser Leu Ile Pro Ser Ser Pro Glu Ser Met Arg Lys
        355                 360                 365
Ser Pro Arg Thr Leu Leu Lys Glu Pro Lys Thr Lys Gln Asp Ala Met
    370                 375                 380
Ser Pro Ala Lys Pro Arg Ser Tyr Gly Leu Phe Ser Lys Lys Ser Lys
385                 390                 395                 400
Ser Glu Met Glu Val Gln Lys Leu Glu Asp Arg His Ile Arg Lys Gly
                405                 410                 415
Pro Ala Ala Gly Thr Gly His Glu Gly Tyr Gly Arg Tyr Ala Gln Arg
            420                 425                 430
Gly Arg Lys Gly Thr Val Gly Ser Asn Ser Asp Thr Arg Ala Arg Ser
        435                 440                 445
Thr Ser Thr Asn Arg Ser Thr Pro Arg Ser Ala Ser Ser Leu His Tyr
```

```
    450                 455                 460
Glu Ala Ala Glu Ser Ala Ala Trp Cys Leu Xaa Thr
465                 470                 475

<210> 30235
<211> 595
<212> PRT
<213> A.fumigatus

<400> 30235
Leu Gly Asp Ile Gly Pro Lys Gly Gly Gly Gly Gly Thr Arg Pro Gly
1               5                  10                  15
Gly Glu Phe Leu Arg Glu Gly Ala Lys Lys Val Ser Gly Ser Thr Glu
            20                  25                  30
Phe His Asp Gly Gly Cys His Leu Glu Pro Trp Ser Phe Ser Trp Ala
        35                  40                  45
Val Ser Gly Ala Leu Val Glu Ile Gln Gln Asp Ile Pro Ala Thr Glu
    50                  55                  60
Arg Gln Ser Asp Ser Thr Gln Asn Leu Arg Met Ala Leu Leu Lys Ser
65                  70                  75                  80
Ser Glu Arg Arg Ile Ser His Ile Val Ser Ser Ser Gln Met Ser Met
                85                  90                  95
Ser Asn Arg Ser Gln Leu Ser Leu Ile Ala Ser Arg Gln Leu Asp Lys
            100                 105                 110
Arg Leu Glu Gly Asn Ser Thr Thr Asp Thr Ser Gln Leu Arg Asp Leu
        115                 120                 125
Arg Ile Leu Tyr Asn His Ala Gly Ile Pro Leu Pro Trp Asn His Ser
    130                 135                 140
Ile Tyr Val Arg Lys Cys Asn Arg Met Phe Leu Leu Phe Pro Lys Arg
145                 150                 155                 160
Asn Met Val Met Arg Gln Asn Leu Ser Met Pro Cys Leu Leu Ser Thr
                165                 170                 175
Glu Pro Gly His Ser Arg Leu Val Asp Arg Ser Glu Gly Phe Tyr Ala
            180                 185                 190
Gly Lys Asn Phe Arg His Gly Glu Val Gly Ser His Ser Ala Gln Lys
        195                 200                 205
Arg Pro Arg Ala Leu Ala Tyr Gln Met Trp Ser Ala Arg Met Glu Leu
    210                 215                 220
Gln Thr Ser Lys Cys Ile Arg Tyr Asn Gln Ser Pro Leu Leu Gly Pro
225                 230                 235                 240
Pro Gly Ser Pro Glu Ser Gly Leu Ile Gly Ser Phe Ser Ser Glu His
                245                 250                 255
Ala Ala Leu Leu Asp Phe Ile Pro Arg Thr Phe Gly Arg Cys Ile Ala
            260                 265                 270
Asp Pro Ser Asp Ala Ala Ser Arg Ala Gly Cys Met Lys Gln His Val
        275                 280                 285
Asp His Asp Lys Gly Asp Met Ser Gln Glu Ser Ala Gln Asp Phe Glu
    290                 295                 300
Ala Glu His Arg Arg Tyr Lys Pro Gln Leu Arg Ile Asp Asn Ser Ser
305                 310                 315                 320
Cys Arg Ser Ala Glu Val Arg Asp Ser Gly Leu Gln Ala Ala Pro Pro
                325                 330                 335
Gly Ala Val Gln Ser Ser Pro Arg Ser Asp Ser Ala Glu Arg Pro Arg
            340                 345                 350
Ser Ser Asp Lys Thr Asn Lys Thr Lys Lys Leu Arg Lys Arg His Gln
        355                 360                 365
```

```
Ser Thr Ala Arg His Val Ala His Gly Glu Val His Leu Arg Ser Leu
    370                 375                 380
Ser Thr Trp Glu Ala Arg Leu Ala His Asp Leu Asp Arg Arg Leu Glu
385                 390                 395                 400
Trp Leu Phe His Gln Leu Ser Pro Gly Arg Arg Pro Phe His Phe Ala
                405                 410                 415
Leu Leu Ala Asn His Trp Leu Asn Arg Glu Thr Trp Val Val Leu Asp
            420                 425                 430
Pro Ile Ser Arg Val Pro Ile Gln Ala Arg Arg Leu Trp Gly Asp Pro
        435                 440                 445
Arg Phe Asn Ser Pro Tyr Pro Ile Pro Arg Trp Gly Pro Arg Pro Lys
    450                 455                 460
Tyr Pro Glu Ser Pro Cys Lys Thr Ala Asn Arg Pro His Leu Asn Ser
465                 470                 475                 480
Trp Arg Val Ala Val Asn Arg Asn Arg Arg Ala Ser Gly Leu Gln Asp
                485                 490                 495
Ile Val Lys Gly Leu Ala Leu Leu Glu Asp Ser Ala Asp Glu Pro Pro
            500                 505                 510
Asp Gly Lys Val Asp Pro Ala Ser Trp Ile Leu Arg Arg Pro Pro Gln
        515                 520                 525
Gly Phe Ala Arg Ser Ile Thr Gln Gln Asp Lys Tyr Phe Glu Gly Gly
    530                 535                 540
Ala Gly Trp Gln Glu Thr Leu Gly Asp Trp Gln Arg Val Arg Arg Gly
545                 550                 555                 560
Tyr Arg Ile Arg Lys Ala Ile Tyr Glu Gly Arg Thr Asn Arg Ser Arg
                565                 570                 575
Thr Lys Glu Ile Ala Val Gly Leu Pro Arg Tyr Phe Gln Ala Ile Thr
            580                 585                 590
Asn Glu Pro
        595
```

<210> 30236
<211> 262
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (79),(82)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30236

```
Gly Asn Ala Phe Gln Thr Ser Phe Gln Pro Ile Pro Leu Pro Arg Val
1               5                   10                  15
Gly Leu Pro Ser Arg Gly Asn Ile Lys Gln Glu Phe Thr Leu Asn Thr
            20                  25                  30
Asn Lys Thr Val Lys Ser Arg Lys Ala Gln Ala Asp Leu Phe Pro Asp
        35                  40                  45
Asn Val Ser Arg Ile Leu Leu Tyr Glu Pro Cys Ser Arg Glu Gly Glu
    50                  55                  60
Arg Ser Arg Thr Cys Leu Ser Thr Lys Gly Lys Gly Glu His Xaa Leu
65                  70                  75                  80
Glu Xaa Ile His Asp Phe Val Phe Arg Leu Pro Val Leu Glu Tyr Arg
                85                  90                  95
Asn Lys Thr Trp Ser Asn Leu Asp Leu Ala Leu Arg Leu Lys Lys Asp
            100                 105                 110
```

```
Val Ile Lys Ala Leu Ile Ser His Ala Pro Ala Ile Leu Gly Asn Lys
        115                 120                 125
Phe Ser His His Arg Pro Ser Lys Gln Gln Leu Lys Arg Tyr Arg Glu
    130                 135                 140
Val Ala Ser Pro Ser Gln Leu Leu Gln Asn Gln Asp Ser Ala Ser Asn
145                 150                 155                 160
Ala Pro Ser Gly Lys Thr Gln Ser Leu Ala Ser Tyr Asp Ser Asn Ser
                165                 170                 175
Glu His Ser Glu Ser Thr Ser Gln Arg Ser Val His Ser Gly Thr Ser
            180                 185                 190
Pro Leu Ala Arg Ser Gln Ser Leu Gly Ser Ser Met Leu Ser Ile Gln
        195                 200                 205
Asp Gln Gly Ile Pro Phe Asp Ser Arg Ser Ala Ser Glu Val Asp Val
    210                 215                 220
Asp Ala Arg Trp Glu Val Cys Leu Tyr Thr Met Ser Tyr Lys Phe Arg
225                 230                 235                 240
Glu Arg Leu Lys Ala Asn His His Leu Ser Asn Leu Val Gly Leu Ser
                245                 250                 255
Ile Leu Pro Thr Asp His
            260
```

<210> 30237
<211> 60
<212> PRT
<213> A.fumigatus

<400> 30237

```
Thr Leu Leu Asp Gln Asn Phe Arg Trp Ser His Lys Asp Lys Glu Pro
1               5                   10                  15
Ser Val Phe Phe Asp Ala Lys Asn Val His Arg Gln Leu Leu Thr Ile
            20                  25                  30
Leu Ile Gly Asp Thr Pro Lys Phe Ile Leu Tyr Phe His Phe Val Tyr
        35                  40                  45
Phe Gln Thr Phe Thr Gln Ser Phe Arg Gln Arg His
    50                  55                  60
```

<210> 30238
<211> 80
<212> PRT
<213> A.fumigatus

<400> 30238

```
Asp Ser Ser Pro Gln Glu Asp Thr Asp Leu Val Ser Val Thr Ile Val
1               5                   10                  15
Val Pro Phe Ile His Ser Pro Ser Phe His Arg Met His Pro Thr Asn
            20                  25                  30
Thr Ala Ala Trp Gln Ile Ala Glu Lys Ala Lys Pro Leu Glu Val Arg
        35                  40                  45
Pro Ala Ala Tyr Thr Pro Pro Lys Glu Asn Glu Ile Val Val Lys Asn
    50                  55                  60
Ser Ala Ile Gly Leu Val Phe Thr Thr Gly Leu Glu Gly Ala Ala Pro
65                  70                  75                  80
```

<210> 30239
<211> 211
<212> PRT

<213> A.fumigatus

<400> 30239
Leu Phe Ala Ser Thr Glu Val Gln Leu Leu Phe Val Cys Leu Ile Ala
1 5 10 15
Tyr Leu Ser Ile Val Tyr Ile Gln Arg Ser Arg Val Leu Ala Val Ser
20 25 30
Thr Pro Thr Leu Ser Ile Met Arg Phe Asn Ala Ala Ile Thr Gly Ala
35 40 45
Leu Val Ser Ser Ala Thr Leu Met Gly Gln Ala His Ala Glu Glu Thr
50 55 60
Glu Lys Lys Ala Asp Ala Thr Ser Leu Val Glu Lys Pro Thr Phe Thr
65 70 75 80
Val Ser Asn Ile Leu Ser Ile Gln Tyr Ser Pro Pro Ser Leu Leu Val
85 90 95
Ala Asp Asp Gln Leu Ser Ile Ser Leu Leu Pro Ser Lys Leu Pro Ser
100 105 110
Ser Ser Asn Leu Pro Pro Ile Gly Thr Arg Asp Gly Pro Pro Leu Thr
115 120 125
Pro Arg Arg Arg Thr Pro Ser Arg Arg Arg Ile Gly Pro Thr Ser Val
130 135 140
Asn Gly Leu Ser Arg Ser Leu Pro Cys Ser Thr Ala Trp Leu Ala Thr
145 150 155 160
Arg Val Trp Leu Ser Arg Thr Ser Arg Leu Thr Met Pro Ser Leu Arg
165 170 175
Ser Ser Pro Arg Arg Ser Thr Thr Arg Ala Arg Pro Trp Leu Phe Ser
180 185 190
Met Arg Leu Ser His Arg Val Gly His Ile Ser Ser Trp Leu Trp His
195 200 205
Gly Val Tyr
210

<210> 30240
<211> 269
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (232)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30240
Val Lys Val Leu Tyr Glu Phe Ser Leu Thr Ile Leu Gln Val His Phe
1 5 10 15
Ile Phe Arg His Lys Asn Pro Lys Thr Gly Glu Tyr Glu Glu Lys His
20 25 30
Met Thr Ala Pro Pro Ala Ala Arg Thr Thr Lys Leu Thr Thr Leu Tyr
35 40 45
Thr Leu Ile Val Lys Pro Asp Gln Ser Phe Gln Ile Leu Ile Asp Gly
50 55 60
Glu Ala Val Lys Asn Gly Thr Leu Leu Glu Asp Phe Ala Pro Pro Val
65 70 75 80
Asn Pro Glu Lys Glu Ile Asp Asp Pro Lys Asp Lys Lys Pro Ala Asp
85 90 95
Trp Val Asp Glu Ala Lys Ile Pro Asp Pro Glu Ala Lys Lys Pro Asp

```
            100                 105                 110
Asp Trp Asp Glu Asp Ala Pro Tyr Glu Ile Val Asp Glu Glu Ala Thr
        115                 120                 125
Met Pro Glu Asp Trp Leu Glu Asp Glu Pro Thr Ser Ile Pro Asp Pro
    130                 135                 140
Glu Ala Glu Lys Pro Glu Asp Trp Asp Asp Glu Glu Asp Gly Asp Trp
145                 150                 155                 160
Ile Pro Pro Thr Val Pro Asn Pro Lys Cys Asn Glu Val Ser Gly Cys
                165                 170                 175
Gly Pro Trp Thr Pro Pro Met Lys Lys Asn Pro Ala Tyr Lys Gly Lys
            180                 185                 190
Trp Thr Ala Pro Leu Ile Asp Asn Pro Ala Tyr Lys Gly Ile Trp Lys
        195                 200                 205
Pro Cys Lys Ile Pro Asn Pro Ala Tyr Phe Glu Asp Lys Thr Pro Ser
    210                 215                 220
Asn Phe Glu Pro Met Gly Ala Xaa Lys Phe Leu Asp Ser Cys Val Cys
225                 230                 235                 240
Ser Trp Val Leu Arg Ser Asp Lys Pro Thr Lys Leu Gly Phe Glu Ile
                245                 250                 255
Leu Asp His Ala Lys Thr Asn Phe Phe Phe Glu Asn His
            260                 265
```

<210> 30241
<211> 63
<212> PRT
<213> A.fumigatus

<400> 30241

```
Val Ile Ser Ala Pro Gly Tyr Gly Met Glu Cys Thr Asp Thr Cys Leu
1               5                   10                  15
Gln Lys Asp Ser Leu Val Cys Gly Gly Ala Tyr Met Lys Leu Leu Gln
            20                  25                  30
Glu Asn Lys Lys Leu His Ala Glu Glu Phe Ser Asn Ala Thr Pro Tyr
        35                  40                  45
Val Ile Met Phe Gly Pro Asp Lys Cys Gly Ala Thr Asn Lys Val
    50                  55                  60
```

<210> 30242
<211> 123
<212> PRT
<213> A.fumigatus

<400> 30242

```
Pro Thr Thr Ile Glu Ala Pro Phe Leu Glu Gln Phe Thr Ala Asp Trp
1               5                   10                  15
Asp Ser Arg Trp Thr Pro Ser His Ala Lys Lys Glu Asp Ser Lys Ser
            20                  25                  30
Glu Glu Asp Trp Ala Tyr Val Gly Glu Trp Ala Val Glu Glu Pro Thr
        35                  40                  45
Val Leu Asn Gly Met Val Gly Asp Lys Gly Leu Val Val Lys Asn Val
    50                  55                  60
Ala Ala His His Ala Ile Ser Ala Lys Phe Pro Lys Lys Ile Asp Asn
65                  70                  75                  80
Lys Gly Lys Thr Leu Val Val Gln Tyr Glu Val Lys Pro Gln Ser Arg
                85                  90                  95
Ser Tyr Gln Leu Leu Ala Met Ala Trp Ser Val Leu Thr Pro Val Phe
```

```
            100                 105                 110
Lys Lys Thr Pro Leu Phe Ala Ala Val Pro Thr
        115                 120

<210> 30243
<211> 118
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (59),(69)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30243
Thr Ser Asn Cys His Gln Arg Gln Ala Cys Ser Met Ala Gln Glu Ile
1               5                   10                  15
Glu Lys Thr Asn Asn Asp His Leu Val Gln Ser Ser Asp Pro Glu His
            20                  25                  30
Pro Ala Asn Leu Ile Pro Glu Leu Cys Arg Lys Phe Tyr Asn Trp Gly
        35                  40                  45
Trp Val Thr Gly Thr Gly Gly Gly Val Ser Xaa His Val Ser Gly Arg
    50                  55                  60
Glu Lys Ile Leu Xaa Arg Ala Ser Ile Glu Phe Ile Lys Leu Arg Ser
65                  70                  75                  80
Val Pro Ala Asn His Asn Phe His Trp His Leu Pro Glu Val Pro Lys
                85                  90                  95
Arg Asn Trp Asn Pro Pro Gly Thr Asn Ile Leu Cys Ser Leu Lys Phe
            100                 105                 110
Pro Gln Ser Pro Asn Tyr
        115

<210> 30244
<211> 169
<212> PRT
<213> A.fumigatus

<400> 30244
Ser Ile Arg Cys Pro Ser Ala Ser Ser Ser Thr Ile Asn Leu Tyr Gln
1               5                   10                  15
Ile Cys Leu His Asn Gly Leu Gln Pro Arg Pro Arg His Pro Arg Pro
            20                  25                  30
Arg Arg Leu Lys Pro Leu Arg Arg Ala Gly His Val Leu Leu Gln Pro
        35                  40                  45
Gly Arg His Pro Gly His Arg Pro Arg Arg Arg Ser Gln Ala Leu Ala
    50                  55                  60
Ser Asp Asp Pro Pro Leu Pro Leu Gly His Pro Leu Arg Arg Arg Ala
65                  70                  75                  80
Ala Arg Ala Arg Arg Gly Arg Ser Ser Pro Gln Ser Ile Arg Ala His
                85                  90                  95
Arg Arg Thr His Gly Pro Arg Ala Asn Pro Arg Asp His Pro Leu Arg
            100                 105                 110
Arg Arg Pro Gly Arg Leu Arg Gln His His Gly Arg His Glu Pro Leu
        115                 120                 125
Arg Gln Gly Arg Lys Pro Ala Ser His Ala Gly Thr Gly Ser Leu Leu
    130                 135                 140
```

```
Pro Arg Ala Gly Asp Arg Asp Gly Gly Gly Ala Arg Pro Asp Arg Gly
145                 150                 155                 160
Arg Gly Gly Arg Ser Arg Gly His Gly
                165
```

<210> 30245
<211> 317
<212> PRT
<213> A.fumigatus

<400> 30245

```
Arg His Ile Ser Arg Ala Pro Arg Ile Leu Cys Thr Asn Pro Phe Val
1               5                   10                  15
Ala His Leu Pro Leu His Leu Pro Ser Ile Ser Thr Lys Phe Ala Ser
            20                  25                  30
Thr Met Ala Ser Asn Arg Ala Leu Ala Ile Leu Asp His Ala Ala Ser
        35                  40                  45
Asn His Tyr Gly Val Pro Ala Met Cys Cys Tyr Asn Leu Glu Gly Ile
    50                  55                  60
Leu Ala Thr Val Arg Ala Ala Glu Ala Lys Arg Ser Pro Ala Met Ile
65                  70                  75                  80
Leu Leu Phe Pro Trp Ala Ile His Tyr Ala Asp Gly Leu Leu Val His
                85                  90                  95
Ala Ala Ala Glu Ala Ala Arg Lys Ala Ser Val Pro Ile Ala Val His
            100                 105                 110
Met Asp His Ala Gln Thr Pro Glu Ile Ile Arg Tyr Ala Ala Asp Leu
        115                 120                 125
Gly Gly Phe Asp Ser Ile Met Val Asp Met Ser His Tyr Asp Lys Glu
    130                 135                 140
Glu Asn Leu Arg Leu Thr Arg Glu Leu Val Ala Tyr Cys His Glu Arg
145                 150                 155                 160
Gly Ile Ala Thr Glu Ala Glu Pro Gly Arg Ile Glu Gly Gly Glu Asp
                165                 170                 175
Gly Val Ala Asp Thr Ala Asp Leu Glu Gly Leu Leu Thr Thr Pro Glu
            180                 185                 190
Glu Ser Arg Glu Phe Ala Asp Thr Gly Ile Asp Trp Leu Ala Pro Ala
        195                 200                 205
Phe Gly Asn Val His Gly Glu Tyr Gly Pro Arg Gly Ile Arg Leu Glu
    210                 215                 220
Tyr Asp Arg Leu Lys Ser Ile Gln Glu Ala Val Gly Asp Arg Val Lys
225                 230                 235                 240
Leu Val Leu His Gly Ala Asp Pro Phe Thr Pro Glu Ile Phe Ala Gln
                245                 250                 255
Cys Ile Glu Cys Gly Val Ser Lys Val Asn Leu Asn Lys Val Leu Asn
            260                 265                 270
Asn Glu Tyr Val Arg Val Gln Arg Glu Lys Ser Gly Arg Ala Pro Leu
        275                 280                 285
Thr Ala Val Leu Glu Glu Ala Thr Asn Glu Met Gln Lys Ala Val Glu
    290                 295                 300
Arg Cys Met Asp Met Leu Gly Ser Thr Gly Lys Ala Ala
305                 310                 315
```

<210> 30246
<211> 68
<212> PRT
<213> A.fumigatus

<400> 30246
Ile Gly Ile Ala Ser Asn Ile Lys Ile Ser Lys Ile Gly Gly Tyr Gly
1 5 10 15
Ala Ile Gly Gly Tyr Gly Ala Ala His Pro Gln Cys Gly Ser Gly Glu
20 25 30
Gly Ala Tyr Gly Thr Asp Ile Ala Val Pro Arg Ser Ser Ala Val Leu
35 40 45
Arg Gly Gln Tyr Val Gln Val Cys Arg Asp Ser Ala Phe Ala Pro Thr
50 55 60
Ala Ala Glu Asp
65

<210> 30247
<211> 71
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (17)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30247
Thr Ala Val His Gly Gln Val His Pro Val Pro Asp Thr Ala Gly Ala
1 5 10 15
Xaa Asp Ala Pro Cys His Leu Leu His Cys Leu Leu Ala Pro Glu Gln
20 25 30
Gln Arg Gly Lys Ile Gln Ala Ser Ile Ser Glu Met Ala Thr Ile Leu
35 40 45
Lys Ile Arg Ser Glu Glu Glu Glu Gly Arg Thr Thr Asp Thr Ser Thr
50 55 60
Val Glu Ala Phe Asp Arg Ser
65 70

<210> 30248
<211> 76
<212> PRT
<213> A.fumigatus

<400> 30248
Thr Gly Ala Asp His Pro Gln Ala Asn Phe Tyr Leu Ala Phe Phe Phe
1 5 10 15
Ile Ala Gly Ser Leu Ser Asp Glu Arg Ile Asp Pro Phe Gly His Asn
20 25 30
Met Gly Lys Tyr Ile Phe Phe Val Leu Arg Tyr Ala Cys Ile Leu Val
35 40 45
Met Cys Leu Gln Phe Ile Ile Ser Met Gly Asn Arg Pro Gln Gly Leu
50 55 60
Val Ser Arg Leu Pro Asn Asn Gly Lys Ala Cys Tyr
65 70 75

<210> 30249
<211> 108
<212> PRT
<213> A.fumigatus

<400> 30249
His Pro Gln Arg Ala Lys Lys Leu Tyr Met Ser Gly Ile Ile Val Tyr
1 5 10 15
Ser Ile Ile Met Val Tyr Thr Ala Phe Cys Ala Leu Tyr Leu Val Val
20 25 30
Leu Lys Leu Met Ala Glu Ala Gly Val Gly Lys Lys Glu Leu Ala Val
35 40 45
Asn Asp Ser Leu Phe Ile Asn Ile Val Gly Phe Leu Val Ser Thr Val
50 55 60
Gly Leu Tyr Phe Tyr Ser Ser Val Leu Tyr Leu Asp Pro Gly His Asn
65 70 75 80
Val Thr Ser Phe Arg Ala Ile Thr Leu Arg Trp Leu Pro Thr Tyr Ile
85 90 95
Leu His Phe Cys Lys Val Leu Leu Arg Phe Val Asn
100 105

<210> 30250
<211> 543
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (26),(63)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30250
Ser Ala Val Glu Val Pro Gln Tyr Ser Ser Arg Pro Asp Ser Pro Leu
1 5 10 15
Arg Pro Trp Ser Pro Ala Arg Ala Ala Xaa Trp Thr Arg Pro Pro Ala
20 25 30
Pro Pro Ser Val Thr Gly Ser Gln Tyr Glu Arg Ala Asp Leu Asn Gly
35 40 45
Ser Pro Arg Pro Gly Thr Pro Ser Ser Arg Tyr Gly Gly Ser Xaa Arg
50 55 60
Arg Pro Leu Pro Pro Ala Pro Leu Phe Ala Gly Pro Gly Ala Ala Thr
65 70 75 80
Gly Gln Asp Thr Ser Ile Asp Ile Gly Asp Gly Asn Asp Pro Glu Asp
85 90 95
Pro Phe Gly Gly Gly Gly Arg Thr Asn Asn Arg His Glu His Arg Gly
100 105 110
Ser Ile Arg Ser Phe Met Ser Asp Ser Thr Met Ile Thr Asp Glu Lys
115 120 125
Glu Glu Met Ala Lys Ile Asn Leu Asn Glu Asp Asp Val Val Asp Val
130 135 140
Asp Pro Asn Met His Tyr Gly Pro Ala Pro Glu Lys Gln Ser Arg Arg
145 150 155 160
Gly Val Arg Glu Ala Gln Met Ser Lys Lys Glu Val Gln Leu Ile Asn
165 170 175
Gly Glu Leu Ile Leu Glu Cys Lys Ile Pro Thr Ile Leu His Ser Phe
180 185 190
Leu Pro Arg Arg Asp Asp Arg Glu Phe Thr His Met Arg Tyr Thr Ala
195 200 205
Val Thr Cys Asp Pro Asp Asp Phe Thr Gln Arg Gly Tyr Lys Leu Arg
210 215 220

```
Gln Gln Ile Gly Ser Thr Met Arg Glu Thr Glu Leu Phe Ile Cys Val
225                 230                 235                 240
Thr Met Tyr Asn Glu Asp Glu Thr His Phe Thr Arg Thr Met His Gly
                245                 250                 255
Ile Met Arg Asn Ile Ser His Phe Cys Ser Arg Ser Lys Ser Arg Thr
            260                 265                 270
Trp Gly Lys Asp Gly Trp Lys Lys Ile Val Val Cys Ile Ile Ala Asp
        275                 280                 285
Gly Arg Lys Lys Val His Pro Arg Thr Leu Asn Ala Leu Ala Ala Met
    290                 295                 300
Gly Val Tyr Gln Glu Gly Ile Ala Lys Asn Ile Val Asn Gln Lys Gln
305                 310                 315                 320
Val Thr Ala His Val Tyr Glu Tyr Thr Thr Gln Val Ser Leu Asp Ser
                325                 330                 335
Asp Leu Lys Phe Lys Gly Ala Glu Lys Gly Ile Met Pro Cys Gln Val
            340                 345                 350
Ile Phe Cys Leu Lys Glu His Asn Gln Lys Lys Leu Asn Ser His Arg
        355                 360                 365
Trp Phe Phe Asn Ala Phe Gly Arg Ala Leu Gln Pro Asn Ile Cys Ile
    370                 375                 380
Leu Leu Asp Val Gly Thr Lys Pro Glu Pro Thr Ala Leu Tyr His Leu
385                 390                 395                 400
Trp Lys Ala Phe Asp Gln Asp Ser Asn Val Ala Gly Ala Ala Gly Glu
                405                 410                 415
Ile Lys Ala Gly Lys Gly Lys Asn Met Met Gly Leu Leu Asn Pro Leu
            420                 425                 430
Val Ala Ser Gln Asn Phe Glu Tyr Lys Met Ser Asn Ile Leu Asp Lys
        435                 440                 445
Pro Leu Glu Ser Val Phe Gly Tyr Ile Thr Val Leu Pro Gly Ala Leu
    450                 455                 460
Ser Ala Tyr Arg Phe Phe Ala Leu Gln Asn Asp Ala Asp Gly Asn Gly
465                 470                 475                 480
Pro Leu Asn Gln Tyr Phe Lys Gly Glu Thr Leu His Gly Lys Asp Ala
                485                 490                 495
Asp Val Phe Thr Ala Asn Met Tyr Leu Ala Glu Asp Arg Ile Leu Cys
            500                 505                 510
Trp Glu Leu Val Ala Lys Arg Glu Glu Arg Trp Val Leu Lys Phe Val
        515                 520                 525
Lys Ser Ala Val Gly Glu Thr Asp Val Pro Gly Glu Arg Cys Val
    530                 535                 540
```

<210> 30251
<211> 139
<212> PRT
<213> A.fumigatus

<400> 30251

```
Leu Met Ala Ser Ser Asp Thr Ile Pro Glu Phe Ile Ser Gln Arg Arg
1               5                  10                  15
Arg Trp Leu Asn Gly Ala Phe Phe Ala Ala Val Tyr Ser Leu Val Asn
            20                  25                  30
Val Lys Gln Leu Trp Lys Thr Asp His Ser Val Pro Arg Lys Ile Leu
        35                  40                  45
Leu Gln Ile Glu Ala Phe Tyr Gln Phe Leu Asn Leu Leu Phe Thr Tyr
    50                  55                  60
Phe Gly Leu Val Cys Lys Leu Val Pro Leu Thr Glu Gln Val Leu Thr
```

```
65                  70                  75                  80
Ile Arg Arg Gln Thr Ser Thr Trp Leu Ser Phe Ser Leu Gln Asp Leu
                85                  90                  95
Tyr Arg Thr Arg Glu Leu Thr His Leu Asp Ile Thr Trp Glu Asn Thr
            100                 105                 110
Ser Ser Leu Ser Cys Gly Thr His Ala Ser Trp Ser Cys Ala Cys Asn
        115                 120                 125
Ser Ser Phe Arg Trp Val Ile Asp His Arg Gly
    130                 135
```

<210> 30252
<211> 88
<212> PRT
<213> A.fumigatus

<400> 30252

```
Val Gln Ser Gly Gly Ser Phe Asp Val Asp Tyr Ser Val Val Gly Pro
1               5                   10                  15
Gly Glu Lys Val Ile Leu Asp Gly Thr Lys Glu Arg Gln Gly Asp Phe
            20                  25                  30
Val Phe Thr Ala Gln Ser Ile Gly Glu Tyr Arg Phe Cys Phe Asn Asn
        35                  40                  45
Glu Met Ser Thr Phe Ala Glu Lys Met Val Asp Phe Glu Ile Ala Val
    50                  55                  60
Arg Ser Gly Pro Trp His Thr Gln Trp Leu Asp Leu Tyr Gln Gly Thr
65                  70                  75                  80
Tyr His Thr Asn Trp Gly Val Leu
                85
```

<210> 30253
<211> 127
<212> PRT
<213> A.fumigatus

<400> 30253

```
Val Glu Asn Glu Glu Arg Ala Gln Leu Pro Ser Arg Gln Gly Ala Ser
1               5                   10                  15
Pro Glu Gln Ala Ser Ala Leu Glu Glu Ser Ile Tyr Lys Leu Ser Ala
            20                  25                  30
Gln Leu Ser Thr Ile Ala Arg Asn Gln Lys Tyr Phe Arg Thr Arg Glu
        35                  40                  45
Asn Arg Asn Phe Ser Thr Val Arg Ser Thr Glu Arg Arg Ile Phe Asn
    50                  55                  60
Phe Ser Val Ile Glu Gly Leu Met Met Val Ser Met Ala Gly Leu Gln
65                  70                  75                  80
Val Phe Ile Val Arg Phe Phe Phe Gln Gly Ala Arg Lys Gly Thr Tyr
                85                  90                  95
Ser Leu Ser Tyr Gly Gly Val Lys Pro Gly Ile Val Phe Asp Tyr Cys
            100                 105                 110
Leu Ser Arg Ser Leu Ile Gln Val His Val Trp Leu Thr Pro Leu
        115                 120                 125
```

<210> 30254
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30254
Thr Arg Val Ser Thr Leu Leu Ser Lys Lys Gln Leu Thr Asp Leu Lys
1 5 10 15
Ile Gly Ser Thr Val Leu Leu Ser Met Pro Phe Gly Ser Phe Ala Arg
20 25 30
Arg Leu Gly Ile Ile Leu Asp His His Leu Phe Leu Arg Asn Asn Glu
35 40 45
Ser Asp Ile Pro Thr Ala Leu Lys Glu Asn Ala Ser His His
50 55 60

<210> 30255
<211> 93
<212> PRT
<213> A.fumigatus

<400> 30255
Asn Ile Asp Leu Asp Ile Thr Asp Asn Ser Asn Ser Ala Val Tyr Val
1 5 10 15
Gln Gly Arg Asp Lys Phe Asn Asn Asn Gly Gln Ser Ser His Leu Gly
20 25 30
Val Lys Ala Phe Ala Phe Met Trp Thr Ser Val Ala Leu Leu Phe Leu
35 40 45
Ser Cys Val Ile Tyr Cys Met Gly Gly Ala Val Gly Arg Lys Asp Gly
50 55 60
Gly Tyr Ser Gly Arg Glu Gln Arg Arg Arg Gly Phe Phe Asn Ser His
65 70 75 80
Arg Ser Gly Ser Leu Arg Ser Asn Lys Glu Thr Ala Pro
85 90

<210> 30256
<211> 104
<212> PRT
<213> A.fumigatus

<400> 30256
His Thr Ala Ile Gly Val Gly Leu Gly Phe Leu Gly Leu Phe Phe Thr
1 5 10 15
Ala Ser Ala Leu Leu Leu Met Phe Leu Ala Phe Leu Gly Gly Ala Arg
20 25 30
Asn Ser Asn Pro Leu Asp Arg Ile Tyr Trp Leu Glu Ala Ala Thr Gly
35 40 45
Asn Ile Pro Gly Ala Pro Ala Leu Ser Arg Trp Thr Tyr Trp Asn Leu
50 55 60
Cys Ala Val Asn Ser Glu Gly His Asn Glu Cys Gly Lys Ser Tyr Pro
65 70 75 80
Asp Tyr Pro Phe Asp Pro Pro Ser His Arg Asn Phe Asn Thr His Val
85 90 95
Asn Ile Pro Ala Ala Phe Ile Gly
100

<210> 30257
<211> 63
<212> PRT
<213> A.fumigatus

<400> 30257
Tyr Asn Cys Asn Ala Gln Val Ala Phe Phe Cys Gly Thr Cys Ser Lys
1 5 10 15
Ser Ser Ser Arg Leu Cys Ser Asp Arg Leu Asn Asn Val Val Trp Ala
20 25 30
Phe Asp Ala Ser Phe Leu Ala Leu Pro Ser Asn Phe Pro Asn Tyr Phe
35 40 45
Leu Pro Lys Tyr Tyr Val Leu Gln Ala Leu Arg Arg Val Lys Arg
50 55 60

<210> 30258
<211> 119
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (4),(6)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30258
Ala Gln Tyr Xaa Ala Xaa Lys Asn Gly Gly Asp Val Phe Val Arg Val
1 5 10 15
Cys Glu Gly Val Arg Glu Ile Lys Val Thr Lys Pro Glu Pro Lys Pro
20 25 30
Lys Glu Glu Lys Pro Pro Lys Ala Glu Asp Asp Glu Asp Glu Asp Ser
35 40 45
Asp Phe Asp Ser Asp Glu Asp Glu Glu Glu Glu Ile Arg Glu Ile Val
50 55 60
Trp Lys Thr Glu Lys Pro Ile Ala Glu Leu Ala Val Lys Gly Val Lys
65 70 75 80
Ala Gly Ser Lys Val Glu Leu Met Val His Val Asn Ala Asp Leu Gly
85 90 95
Met Gln Ile Thr Ala Arg Glu Val Gly Gly Gln Asn Ala Val Arg Gly
100 105 110
Ala Val Glu Ser Pro Lys Ala
115

<210> 30259
<211> 142
<212> PRT
<213> A.fumigatus

<400> 30259
Thr His Leu Thr Phe Asp Val Ser Tyr Ser Ser Phe Glu Arg Leu Glu
1 5 10 15
Thr His Asp Tyr Gln Ile Ser Lys Met Arg Ile Leu Tyr Phe Pro Leu
20 25 30
Leu Ala Ser Ser Phe Leu Val Thr Arg Thr Leu Ala Thr Asp Thr Ile
35 40 45
Ser Thr Asn Glu Val Ser Thr Cys Leu Ala Ser Ser Asp Val Glu Val
50 55 60
Arg Glu Leu Ser Val Thr Tyr Thr Arg Ser Thr Arg Glu Val Val Phe
65 70 75 80
Arg Ile Asp Gly Thr Ser Lys Lys Val Gln Asn Val Thr Ala Ser Leu
85 90 95

```
Thr Val Thr Ala Tyr Gly Asn Gln Val Tyr Ser Lys Asp Phe Asp Pro
            100                 105                 110
Cys Asn Ser Asp Asn Tyr Val Ala Gln Leu Cys Pro Gly Met Tyr His
        115                 120                 125
His Pro Ala Lys Ala Val Asn Gln Tyr Pro Leu Ile His Ala
    130                 135                 140
```

<210> 30260
<211> 990
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (244),(952),(990)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30260

```
Val Arg Gly Pro Phe Gln Pro Arg Gly Glu Asp Cys Ser Leu Thr Ser
1               5                   10                  15
Gly Ser Thr Gly Val Pro Lys Gly Val Val Val Pro His Arg Ala Val
            20                  25                  30
Cys Cys Ser Ile Arg Ala His Ser Glu Ala Met Asn Ile Asn Thr Thr
        35                  40                  45
Ser Arg Ser Leu Gln Phe Ala Ser Tyr Thr Phe Asp Ala Cys Ile Cys
    50                  55                  60
Glu Ile Phe Ser Val Leu Val Ala Gly Gly Thr Val Cys Ile Pro Ser
65                  70                  75                  80
Glu Glu Glu Arg Val His Asp Leu Ala Gly Phe Ile Thr Arg Ser Gln
                85                  90                  95
Ala Asn Trp Ala Phe Phe Thr Pro Thr Val Ile Arg Thr Leu Gly Leu
            100                 105                 110
Ser Pro Ser Gln Val Pro Ser Leu Arg Thr Leu Val Leu Gly Gly Glu
        115                 120                 125
Val Val Thr Val His Asp Ala Arg Thr Trp Ala Gly His Val Ser Leu
    130                 135                 140
Phe Asn Gly Tyr Gly Pro Thr Glu Thr Cys Val Phe Cys Ala Thr Thr
145                 150                 155                 160
Pro Ile His Pro Asp Gly Val Thr Tyr Gly Arg Ile Gly Arg Pro Ile
                165                 170                 175
Gly Cys Ala Ala Trp Val Val Arg Pro Asp Asn His Asp Ile Leu Leu
            180                 185                 190
Pro Pro Gly Cys Pro Gly Glu Leu Leu Ile Glu Gly Pro Ile Val Ser
        195                 200                 205
Gln Gly Tyr Leu Asn Asp Pro Val Arg Thr Gln Glu Ala Phe Ile Thr
    210                 215                 220
His Pro Ala Trp Ala Gln Asn Arg Lys Leu Ser Gln Asn Gln Ser Ser
225                 230                 235                 240
Ala Arg Arg Xaa Tyr Lys Thr Gly Asp Leu Val Arg Gln Ser Pro Asp
                245                 250                 255
Gly Thr Leu Val Tyr Met Ala Arg Leu Asp Ser Gln Val Lys Ile Asn
            260                 265                 270
Gly Gln Arg Leu Asp Leu Gly Glu Ile Arg His Gln Ile His Ser Val
        275                 280                 285
Val Ser Glu Asp Val Gln Val Phe Ile Asp Leu Leu Pro Pro Thr Cys
    290                 295                 300
```

```
Leu Pro Asn Glu Lys Ala Leu Leu Val Ala Phe Leu Ala Ser Thr Arg
305                 310                 315                 320
Phe Glu Pro Glu Gln Thr Ser Gly Phe Ser Pro Pro Ile Lys Thr Leu
                325                 330                 335
Thr Ser Gln Leu Glu Gln Asp Leu Pro Arg Leu Leu Pro Arg Tyr Met
            340                 345                 350
Ile Pro Ser Val Tyr Leu Pro Leu Ser Ala Ile Pro Leu Thr Ser Gly
        355                 360                 365
Gly Lys Val Asp Arg Gln Ala Leu Arg Arg Arg Val Ser Arg Met Ser
    370                 375                 380
Met Lys Glu Leu Leu Val Tyr Thr Gly Glu Glu Gln Gly Thr Lys Leu
385                 390                 395                 400
Pro Val Ser Thr Ala Glu Glu Gln Gln Met Gln Met Leu Trp Ala Glu
                405                 410                 415
Val Leu Arg Ile Pro Pro Glu Thr Ile Gly Ala Ser Asp His Phe Phe
            420                 425                 430
Arg Leu Gly Ala Asp Ser Ile Asp Gly Met Lys Leu Val Ala Leu Ala
        435                 440                 445
Gln Arg His Gly Ile Leu Ile Thr Leu Ala Asp Ile Phe Arg Ser Pro
    450                 455                 460
Arg Leu Ser Asp Leu Ala Thr Leu Leu Glu Ser Pro Ala His Pro Asp
465                 470                 475                 480
Asp Ser Lys His Asp Leu Lys Thr Ile Ile Pro Ala Phe Ser Leu Leu
                485                 490                 495
Asn Val His Ser Arg Asn Thr Val Leu Lys Glu Ile Lys Ala Asp Tyr
            500                 505                 510
Ala Leu Asp Val Ser Gln Ile Glu Asp Ile Tyr Pro Cys Thr Pro Leu
        515                 520                 525
Gln Glu Ser Leu Met Ala Ala Ser Ile Gln Ser His Gly Ala Tyr Val
    530                 535                 540
His His Leu Val Glu Lys Leu Pro Pro Ser Gly Glu Val Pro Ala Ile
545                 550                 555                 560
Ile Ser Ala Trp Gln Ser Val Ile Lys Met Thr Pro Ile Leu Arg Thr
                565                 570                 575
Arg Ile Val Gln Thr Val Ser Ala Gly Leu Leu Gln Val Val Leu Lys
            580                 585                 590
Glu Ser Val Gln Trp Leu His Arg Arg Gln Ala Ile Gln Glu Tyr Leu
        595                 600                 605
Asp Glu Asp Ala Arg His Ser Met Thr Leu Gly Asp Pro Leu Leu Arg
    610                 615                 620
Leu Ala Cys Leu His Asp Pro Gly Thr Pro His Thr Gly His Ile Val
625                 630                 635                 640
Ile Thr Ile His His Ser Ile Tyr Asp Gly Trp Ser Leu Pro His Ile
                645                 650                 655
Arg Lys Leu Val Tyr Ala Thr Gln Asn Gly His Pro Cys Ser Thr Ser
            660                 665                 670
Leu Pro Phe Asn Arg Phe Ile His Tyr Leu Glu Gln Lys Ser Asp Ser
        675                 680                 685
Arg Ala Ser Asp Ser Phe Trp Gln Ser Phe Leu Tyr Arg Ser Gln Pro
    690                 695                 700
Leu Ala Phe Pro Pro Leu Pro Ser Thr Gly Tyr Gln Pro Val Gly Thr
705                 710                 715                 720
Asp Ser Val Gln Leu Ser Val His Trp Pro Ser Thr Phe Pro Pro Ser
                725                 730                 735
Ala Phe Thr Leu Ser Thr Phe Val Arg Val Ala Trp Ala Leu Val Leu
            740                 745                 750
```

```
Gly Ser Tyr Ser Gly Thr Asp Asp Val Ile Phe Gly Leu Ser Leu Ser
        755                 760                 765
Gly Arg Asp Thr Pro Ile Pro Gly Ile Leu Asp Ile Leu Gly Pro Thr
    770                 775                 780
Ile Cys Thr Val Pro Phe Arg Val Lys Phe Ser Gly Glu Ser Phe Gly
785                 790                 795                 800
Ala Leu Leu Glu Arg Ala His Ala Asp Ser Ala Ala Met Leu Pro Tyr
                805                 810                 815
Gln His Ile Gly Leu His His Ile Arg Gln Leu Gly Pro Asp Cys Gln
            820                 825                 830
Leu Ala Cys Asp Phe Gln Thr Leu Leu Val Ile Gln Pro Ala Arg Asp
        835                 840                 845
Pro Ser Asp Pro Glu Pro His Ser Glu Leu Thr Phe Thr Ser Ser Gly
    850                 855                 860
Gly Leu Thr Tyr Ala Phe Ala Leu Ile Cys Gln Pro His Pro Ser Gly
865                 870                 875                 880
Ile Glu Leu His Gly Asp Phe Asp Ser Asn Cys Val Ser Arg Pro Val
                885                 890                 895
Ala Glu Arg Leu Leu Ser Gln Met Lys Ser Val Met Gly Thr Leu Ile
            900                 905                 910
Phe Gly Asp Arg Arg Lys Leu Ala Ala Glu Val Asp Val Ile Gly Ile
        915                 920                 925
Ser Gln Lys Ala Thr Leu Ala Thr Trp Gln Arg Glu Pro Leu Gln Pro
    930                 935                 940
Gly Glu Gly Arg Val Glu Asp Xaa Ile Ile Ser Arg Ala Gln Gln Ala
945                 950                 955                 960
Pro Asp Asp Leu Ala Ile His Ala Trp Asp Gly Glu Leu Thr Tyr Asn
                965                 970                 975
Glu Leu Val Lys Glu Phe Ala Thr Leu Ala Arg Lys Ser Xaa
            980                 985                 990
```

<210> 30261
<211> 79
<212> PRT
<213> A.fumigatus

<400> 30261

```
Ser His Ser Thr Tyr Glu Phe Cys Ala Arg Arg Lys Arg Ile Thr Val
1               5                   10                  15
Ala Val Lys Glu Arg Tyr Asn Asn Gln Ile Val Ser Ala Gly Gln Leu
            20                  25                  30
Leu Ser Leu Thr Gly Glu Val Lys Gln Asn Ile Thr Arg Asp Val Val
        35                  40                  45
Ser Ala Ala Asp Pro Ala Ser Ala Tyr Ser Arg Gly Gly Val Asp Gly
    50                  55                  60
His His Leu Leu Leu Phe Gly Thr Thr Thr Leu Pro Cys Glu Asn
65                  70                  75
```

<210> 30262
<211> 112
<212> PRT
<213> A.fumigatus

<400> 30262

```
His Phe Met Leu Tyr Cys Ala Val Val Ile Phe Ser Lys Ser Tyr Cys
1               5                   10                  15
```

```
Pro Tyr Ser Lys Arg Ala Lys Thr Ile Leu Leu Glu Lys Tyr Asn Ile
            20                  25                  30
Val Pro Ala Pro His Val Val Glu Leu Asp Gln His Ala Met Gly Gln
        35                  40                  45
Gln Leu Gln Ser Leu Leu Ala Lys Asn Thr Gly Arg Arg Thr Val Pro
    50                  55                  60
Asn Val Leu Val Asn Gly Lys Ser Ile Gly Gly Gly Asp Asp Val Thr
65                  70                  75                  80
Ala Leu Asp Glu Lys Glu Glu Leu Ala Ser Thr Leu Lys Asn Leu Gly
                85                  90                  95
Gly Lys Trp Ile Gln Glu Phe Asn Arg Lys Gly Pro Asn Glu Ala Gly
            100                 105                 110
```

<210> 30263
<211> 230
<212> PRT
<213> A.fumigatus

<400> 30263

```
Leu Thr Ser Thr Ile Ala Phe Leu Ala Ser Phe Leu Asp Val Gln Pro
1               5                   10                  15
Arg Thr Ser Trp Thr Arg Arg Gly Ser Ala Trp Lys Asn Ser Arg Trp
            20                  25                  30
His Ser Arg Lys Gly Thr Cys Leu Gln Val Ala Leu Val Arg Gln Cys
        35                  40                  45
Ser Arg Phe Leu Val Met Gly Leu Thr Gln Ser Asp His Met Glu Thr
    50                  55                  60
Ala Val Asp Tyr Gly Leu Thr Phe Phe Val Ala Lys Ala Gly Asp Ser
65                  70                  75                  80
Gly Glu Gln Gly Asp Gly Thr Asp Val Ala Ser Lys Asp Lys Ser Leu
                85                  90                  95
Arg Val Val Ser Lys Gln His Leu Ser Thr Gly Ile Ser Val Gly Met
            100                 105                 110
Arg Met Pro Ser Phe Lys Val Leu Asn Gln Ser Asp Ala Arg Pro Trp
        115                 120                 125
His Leu Gln Glu Leu Leu Lys Ser Asn Ala Arg Trp Arg Val Ile Val
    130                 135                 140
Phe Ala Gly Asp Leu Thr Asn Pro Glu Asn Phe Asp Arg Tyr Ser Gln
145                 150                 155                 160
Leu Gly Glu Lys Leu Ser Ser Pro Thr Ser Phe Leu Arg Arg Tyr Thr
                165                 170                 175
Pro Arg Gly Gln Pro Ile Asp Ser Val Ile Glu Val Leu Thr Val His
            180                 185                 190
Ala Gly Pro Arg Thr Ser Ile Glu Leu Leu Asp Leu Pro Glu Ile Phe
        195                 200                 205
His Pro Tyr Arg Glu Lys Gln Gly Trp Asp Tyr Arg Ser Ser Pro Arg
    210                 215                 220
Gly Trp Lys Asp Arg Val
225                 230
```

<210> 30264
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30264

```
Tyr Ala Asn Leu Phe Tyr Leu Thr Leu Asp Lys Met Thr Asn Leu Asn
1               5                  10                  15
Gln Pro Glu Asp His Val Asp Val Leu Ile Val Gly Ala Gly Pro Ala
            20                  25                  30
Gly Leu Met Leu Ala Asn Trp Met Ser Arg Leu Gly Ile Lys Thr Arg
        35                  40                  45
Ile Val Asp Lys Arg Ser Thr Lys Val Gly Pro Phe Asp Leu Thr Trp
    50                  55                  60
Lys Thr Tyr
65
```

<210> 30265
<211> 343
<212> PRT
<213> A.fumigatus

<400> 30265

```
Tyr Leu Val Gln Val Phe Ser Gly Gln Ala Asp Gly Leu Gln Cys Arg
1               5                  10                  15
Thr Leu Glu Ile Phe Asp Ser Phe Asp Phe Ala Asp Arg Ala Trp Arg
            20                  25                  30
Glu Ser Asn His Met Leu Glu Ile Cys Leu Trp Asn Pro Asp Lys Asp
        35                  40                  45
Gly Val Ile Arg Arg Ser Asp Arg Ile Pro Asp Thr Ile Pro Gly Ile
    50                  55                  60
Ser Arg Phe Gln Gln Val Val Leu His Gln Gly Arg Ile Glu Arg Phe
65                  70                  75                  80
Phe Leu Asp Ser Ile Lys Glu His Ser Asn Ile Thr Val Glu Arg Gly
                85                  90                  95
Val Met Pro Thr Ser Phe Glu Phe Asp Ala Ser Lys Ala Ala Asp Val
            100                 105                 110
Asp Asp Tyr Pro Ile Thr Val Thr Leu Arg Thr Leu Thr Glu Glu Glu
        115                 120                 125
Ala Thr Pro Lys Gln Gln Gln Ala Thr Asn Gly Ala Ala Val Ser Asp
    130                 135                 140
Gly Leu Phe Arg Ser Asn Leu Ser Pro Asp Asp Thr Asp Asp Leu Leu
145                 150                 155                 160
Arg Ala Ala Glu Leu Asn Ser Arg Ala Asn Gln Thr Gln Val Val Lys
                165                 170                 175
Ala Lys Phe Met Val Gly Cys Asp Gly Ala His Ser Trp Val Arg Arg
            180                 185                 190
Gln Leu Gly Phe Lys Leu Glu Gly Asp Ser Thr Asp Tyr Ile Trp Gly
        195                 200                 205
Val Leu Asp Ile Ile Pro Ile Thr Asp Phe Pro Asp Ile Arg Met Arg
    210                 215                 220
Cys Ala Ile His Ser Ala Ser Ala Gly Ser Val Met Val Ile Pro Arg
225                 230                 235                 240
Glu Asn Lys Leu Val Arg Leu Tyr Ile Gln Leu Gln Ser Ile Val Thr
                245                 250                 255
Gly Gly Gly Lys Ala Asp Arg Ser Lys Ile Thr Pro Asp Met Ile Leu
            260                 265                 270
Lys Ser Ala Gln Arg Ile Leu His Pro Tyr Lys Leu Asp Tyr Ser Tyr
        275                 280                 285
Cys Asp Trp Trp Thr Ala Tyr Gln Ile Gly Gln Arg Val Gly Asp Lys
    290                 295                 300
Phe Ser Leu Glu Glu Arg Val Phe Leu Ala Gly Asp Ala Val His Thr
```

```
305                 310                 315                 320
His Ser Pro Lys Ala Gly Gln Gly Met Asn Val Ser Met Gln Asp Ser
                325                 330                 335
Met Ser His Val Arg Ser Gln
            340
```

<210> 30266
<211> 100
<212> PRT
<213> A.fumigatus

<400> 30266

```
Leu Thr Ser Asp His Ser Ala Tyr Asn Leu Gly Trp Lys Leu Ala His
1               5                   10                  15
Val Ile Lys Gly Tyr Ser Asp Arg Ala Ile Leu Lys Thr Tyr Gln Ser
            20                  25                  30
Glu Arg Arg Arg Ile Ala Gln Asp Leu Ile Asn Phe Asp Tyr Arg Phe
        35                  40                  45
Ser Arg Leu Phe Ser Gly Arg Pro Ala Lys Asp Val Met Asp Glu Glu
    50                  55                  60
Gly Ile Ser Met Glu Glu Phe Lys Met Ala Phe Gln Lys Gly Asn Met
65                  70                  75                  80
Phe Ala Ser Gly Ile Gly Lys Thr Met Gln Pro Leu Pro Ser Asn Gly
                85                  90                  95
Ala Tyr Ser Val
            100
```

<210> 30267
<211> 310
<212> PRT
<213> A.fumigatus

<400> 30267

```
Pro Gln Val Leu Asn Leu Lys Leu Lys Arg Ile Arg Arg Arg Gly Ile
1               5                   10                  15
Arg Leu Val Asn Arg Glu Arg His Arg Ile Pro Arg Ile Asp Met Ser
            20                  25                  30
Ile Pro Ala Gln Ile Leu Arg Pro Ile His Leu Thr Ile Met His Ile
        35                  40                  45
Arg Arg Asn Arg Glu Ala Pro Gly Met His Val Gln Arg Pro Ala Gly
    50                  55                  60
Arg Gln Pro Gln Arg Arg Gln Leu Ile Gln Leu Gln Leu Pro Arg Pro
65                  70                  75                  80
Arg Gly Asp Ala His Ala Asn Gln His Pro Arg Asn Pro Ile Val Pro
                85                  90                  95
His Ser Arg Ile Arg Val Glu Leu Glu Ile Arg Arg Arg Lys Arg Ala
            100                 105                 110
His Pro Val Thr Arg His Val Gln Ile Ile Val Leu Val His Leu Val
        115                 120                 125
Val Ala Gly Gly Glu Val Pro Arg Ala Arg Gly Val Val Val Ala Val
    130                 135                 140
Val Arg Val Gly Leu Ala Gln Gln Ala Gly Glu Lys Val Met Gln Leu
145                 150                 155                 160
Pro Pro Ala Gln Pro Val Ala Ala Gln Ala Asp Arg Val Asp Pro Leu
                165                 170                 175
Gln Leu Ala Asp Pro Pro Arg Arg Ala Gly Gly Asp Leu Leu Val Glu
```

```
            180                 185                 190
His Gly Val Leu Val Asp Val Asp Gly Ala Pro Gly Gln Pro Val Arg
        195                 200                 205
Arg Leu Pro Val Asp Glu Pro Arg Leu Arg Gly Glu Gln Val Ala Ala
    210                 215                 220
Ala Ala Leu His Val Pro Gly Val Leu Val Gly Asp Ala Leu Val Gly
225                 230                 235                 240
Arg Asp Glu Arg Arg Pro Val Leu Pro Pro Val Val Ala Gly Glu Gly
                245                 250                 255
Leu Ala Arg Gly Cys Gly Ser Gly Glu Leu Asn Ala Gly Glu Leu Gly
            260                 265                 270
Ala Asn Arg Ser Ser Val Gln Ser Ile His Trp Ser Asp Ser Tyr Cys
        275                 280                 285
Gly Ile Asp Ala Arg Thr Tyr Arg Ser Arg Trp Asn Val Arg Pro His
    290                 295                 300
Ile Cys Arg Tyr Cys Val
305                 310
```

<210> 30268
<211> 106
<212> PRT
<213> A.fumigatus

<400> 30268

```
Glu Arg Gln Thr Arg Phe Ala Ser Ala Leu Ser Asn Tyr Lys Thr Ser
1               5                   10                  15
Arg Gln His Gly Ala Lys Phe Ile Phe Leu Ile His Asp Leu Trp Gly
            20                  25                  30
Ala Asp Gly Thr Gln Asn Ser Ser Ala Pro Tyr Pro Gly Asp Asn Gly
        35                  40                  45
Asp Trp Thr Ser Trp Asp Asn Tyr Leu Thr His Leu Leu Gly Asp Ile
    50                  55                  60
Lys Ala Asn Arg Met Thr Asp Gly Leu Ile Ile Asp Ile Trp Asn Glu
65                  70                  75                  80
Pro Asp Leu Ser Phe Phe Trp Asn Arg Asp Gln Thr Gln Tyr Leu Gln
                85                  90                  95
Met Trp Gly Arg Thr Phe His Arg Leu Arg
            100                 105
```

<210> 30269
<211> 272
<212> PRT
<213> A.fumigatus

<400> 30269

```
Thr Ala Val Ser Ser Glu Leu Ala Gly Val Glu Leu Ser Gly Pro Ala
1               5                   10                  15
Ser Ala Gly Glu Pro Leu Pro Gly Asn Asn Trp Trp Lys Asn Trp Ala
            20                  25                  30
Ser Phe Val Ala Thr Asn Lys Ser Ile Pro Asp Gln Tyr Ala Trp His
        35                  40                  45
Met Glu Gly Gly Gly Gly Asp Leu Leu Ser Ala Gln Ala Gly Leu Val
    50                  55                  60
Tyr Trp Gln Thr Thr Tyr Gly Leu Pro Gly Arg Pro Ile Asn Ile Asn
65                  70                  75                  80
Glu Tyr Ala Val Leu Asp Glu Glu Val Pro Ala Gly Ser Ala Trp Trp
```

```
                85                  90                  95
Ile Ser Gln Leu Glu Arg Ile Asn Ala Val Gly Leu Arg Gly Asn Trp
            100                 105                 110
Leu Ser Gly Trp Lys Leu His Asp Phe Leu Ala Ser Leu Leu Ser Lys
        115                 120                 125
Pro Asn Ala Asp Asn Ser Asn Tyr Asp Pro Thr Gly Thr Gly Tyr Phe
    130                 135                 140
Pro Thr Gly Asp Tyr Gln Val Tyr Lys Tyr Tyr Asn Leu Asn Met Thr
145                 150                 155                 160
Gly His Arg Val Gly Thr Leu Pro Ser Ala Asp Leu Lys Leu Asp Ala
                165                 170                 175
Tyr Ala Ala Val Gly Asp Asp Arg Val Ala Arg Val Leu Val Gly Val
            180                 185                 190
Arg Ile Ala Thr Gly Thr Trp Gln Leu Gln Leu Asn Gln Leu Ser Ala
        195                 200                 205
Leu Gly Leu Pro Thr Ser Gly Thr Leu Asn Val His Thr Trp Gly Phe
    210                 215                 220
Pro Val Ala Ser Asn Val His Tyr Gly Gln Val Asp Gly Pro Lys Asp
225                 230                 235                 240
Leu Gly Trp Tyr Gly His Val Tyr Ser Gly Asp Ser Val Thr Phe Pro
                245                 250                 255
Val Tyr Gln Thr Asp Thr Thr Ser Ala Tyr Ala Phe Glu Phe Lys Ile
            260                 265                 270
```

<210> 30270
<211> 80
<212> PRT
<213> A.fumigatus

```
<400> 30270
Ala Val Leu Ser Ile Ser Ser Arg Thr Leu Leu Ala Gly Met Gln Arg
1               5                   10                  15
Leu Trp Ala Leu Trp Glu Ser Met Asp Ser Met Arg Ile Ala Arg Tyr
            20                  25                  30
Gln Val Leu Ala Val Ser Lys Asp Leu Thr Tyr Ser Gly Val Phe Pro
        35                  40                  45
Ala Gly His Ser Ala Glu Pro Lys Val Lys Ala Tyr Gly Leu Glu Thr
    50                  55                  60
Phe Tyr Thr Ser Gln Asp Arg Gly Val Ile Arg Arg Trp Ala Phe Lys
65                  70                  75                  80
```

<210> 30271
<211> 65
<212> PRT
<213> A.fumigatus

```
<400> 30271
Asn Asn Asn Arg His Leu Ser Leu Arg Ser Thr Ser Phe Ala Gly Leu
1               5                   10                  15
Thr Glu Pro Leu Leu Met Leu Gly Val Leu Leu Gly Arg Ala Leu His
            20                  25                  30
Gln Leu Glu Asn Ala Leu Gly Gly His Ala Ala Phe Met Gly Phe Val
        35                  40                  45
Gly Ile Asp Gly Phe His Ala His Arg Gln Ile Ser Gly Ser Arg Arg
    50                  55                  60
Val
```

65

<210> 30272
<211> 187
<212> PRT
<213> A.fumigatus

<400> 30272
Thr Arg Gly Val Val Asp Gly Gly Ile Leu Gly Val Phe Tyr Tyr Lys
1 5 10 15
Gly Val Val Leu Arg Gly Pro Pro Leu Phe Lys Gly Arg Asp Met Asp
20 25 30
Ala Asn Phe Trp Glu Leu Ser Arg Gly Arg Lys Gly His Phe Leu Gly
35 40 45
Gln Leu Gly Gly Pro Ile Phe Trp Lys Asn Phe Pro Val Gly Ser Val
50 55 60
Ser Asn Ser Ser Pro Arg Thr Phe Tyr Ser Pro Val Ile Gln Phe Pro
65 70 75 80
Ser Phe Gln Val Leu Val Gln Gly Gly Thr Arg Arg Phe Gly Ala Arg
85 90 95
Ala Gly Ala Ser Asp Val Lys Thr His Pro Phe Phe Arg Gln Thr Gln
100 105 110
Trp Ala Leu Ile Arg His Met Lys Pro Pro Met Ile Pro His Gln Ser
115 120 125
Arg Gly Thr Asp Thr Ala Asn Phe Arg Asn Val Lys Glu Ser Ala Ser
130 135 140
Val Asp Ile Gly Gly Thr Ser Lys Pro Lys Gly Val Pro Leu Gly Ser
145 150 155 160
Gly Leu Ala Thr Pro His Gly Glu Val Ala Asp Pro Phe Glu Glu Phe
165 170 175
Asn Ser Val Thr Leu His His Asp Gly Asp Phe
180 185

<210> 30273
<211> 111
<212> PRT
<213> A.fumigatus

<400> 30273
Val Ser Thr Ser Gly Arg Ser Glu Asn Gln Asn Ile Gln Asn Pro Asn
1 5 10 15
Ile Ser Ser Leu Tyr Pro Leu Arg Asn Arg Thr Thr Thr Pro Ser Gln
20 25 30
Val Asp Met Phe Ser Phe Asp Asp Asp Pro Ala Ser Ala Ala Ser Arg
35 40 45
Asn Cys Ser Ser Ser Ser Pro Ile Thr Thr Glu Asn Pro Leu Leu Arg
50 55 60
Ala Ser Asn Pro Leu Val Ser Asp Leu Glu Gln Glu Val Leu Asp Glu
65 70 75 80
Tyr Thr Arg Leu Leu Gly Asn Val Asn Lys Val Arg Arg Pro Ser Val
85 90 95
Tyr Ala Tyr Ala Ser Ser Pro Met His Glu Trp Pro Leu Ala Ser
100 105 110

<210> 30274
<211> 93

<212> PRT
<213> A.fumigatus

<400> 30274
Leu Val Pro Gln Ala Ile Ala Leu Glu Tyr Leu Arg His Gly Ala Arg
1 5 10 15
Val Ala Val Asn His Leu Gly Arg Pro Asp Glu Glu Pro Leu Leu Glu
20 25 30
Ala Met Leu Lys Asp Val Gly Glu Ile Thr Gly Ser Glu Gly Gly Arg
35 40 45
Phe Ile Thr Ile Ala Gly Asp Val Ser Gln Pro Glu Thr Gly Arg Asp
50 55 60
Phe Val Ala Lys Thr Val Glu Ala Phe Gly Arg Leu Asp Ile Phe Val
65 70 75 80
Ser Asn Ala Gly Val Cys Lys Phe Glu Glu Phe Leu Glu
85 90

<210> 30275
<211> 186
<212> PRT
<213> A.fumigatus

<400> 30275
Ala Met Leu Glu Cys Ala Ser Leu Arg Ser Ser Trp Ser Lys Ser Ser
1 5 10 15
Cys Tyr Thr Cys Leu Cys Cys Lys Pro Ser Val Gln Leu Leu Thr Val
20 25 30
Gln Pro Gly Arg Val Asp Pro Pro Leu Leu Gly His Thr Val Asn Thr
35 40 45
Asn Leu Cys Gly Ala Phe Tyr Ala Thr Gln Ala Ala Ala Arg Gln Met
50 55 60
Ala Leu Ala Gln Ser Pro Pro Gly Gly Ser Ile Ile Gly Ile Ser Ser
65 70 75 80
Ile Ser Ala Leu Val Gly Gly Gly Gln Gln Thr His Tyr Thr Pro Thr
85 90 95
Lys Ala Gly Val Leu Ser Leu Met Gln Ser Thr Ala Val Ala Leu Gly
100 105 110
Lys Tyr Gly Ile Arg Cys Asn Ala Leu Leu Pro Gly Thr Ile Arg Thr
115 120 125
Gln Leu Asn Asp Glu Asp Met Ser Asp Pro Val Lys Arg Thr Tyr Met
130 135 140
Glu Gly Arg Ile Pro Leu Gly Arg Leu Gly Gln Pro Pro Asp Leu Ala
145 150 155 160
Gly Pro Ala Val Phe Leu Ala Cys Asp Glu Leu Ser Gly Tyr Val Val
165 170 175
Ser Ala Asp Pro Tyr Pro Trp Leu Trp Leu
180 185

<210> 30276
<211> 79
<212> PRT
<213> A.fumigatus

<400> 30276
Ser Gln Ile Ala Tyr Ser His Pro Asp Ile Ile Arg Phe Gly Cys Asn
1 5 10 15

```
Leu Ser Pro Glu Pro Leu Leu Leu Phe Ile Ser Gln Pro Ser Ser Leu
            20                  25                  30
Lys Asp Ile Leu Tyr Asn Ala Leu Pro Ala Ile Pro Arg Glu Phe Ile
        35                  40                  45
Ala Ala Ser Thr Tyr Ile Ala Asn Trp Pro Val Arg Ser Lys His Asp
    50                  55                  60
Ser Leu Trp Thr Glu Tyr Leu Glu Asn Asn Ile Arg Pro Trp Leu
65                  70                  75
```

<210> 30277
<211> 88
<212> PRT
<213> A.fumigatus

<400> 30277

```
Leu Glu Trp Ala Lys Val His Leu Ala Pro Phe Gly Val Lys Leu Tyr
1               5                   10                  15
Lys Asn Tyr Asp Asp Met Leu Lys His Glu Gly Leu Gln Ala Val Val
            20                  25                  30
Val Ala Ser Ala Thr Ala Val His Ala Glu Gln Thr Ile Lys Ala Ile
        35                  40                  45
Glu Ala Asn Lys His Val Leu Cys Glu Lys Pro Leu Ser Thr Ser Val
    50                  55                  60
Glu Ile Val Cys Phe Leu Tyr Leu Leu Phe Phe Ser Val Phe Met Leu
65                  70                  75                  80
Leu Val Ala Pro Ala Thr Ser Ser
                85
```

<210> 30278
<211> 249
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (62)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30278

```
Arg Cys Gln Ser Gln Thr Val Leu Asp Ala Ala Thr Arg Lys Pro Glu
1               5                   10                  15
Leu Lys Val Met Cys Gly Phe Ser Arg Arg Phe Asp Ala Ser Tyr Arg
            20                  25                  30
Asp Ala His Lys Lys Met Thr Gln Gly Ser Ile Gly Ser Pro Ser Val
        35                  40                  45
Met Arg Ser Gln Thr Cys Asp Lys Leu Asp Pro Thr Gly Xaa Phe Val
    50                  55                  60
Ala Tyr Ala Glu Phe Ser Gly Gly Ile Phe Val Asp Cys Ser Ile His
65                  70                  75                  80
Asp Ile Asp Leu Ala Leu Trp Phe Phe Gly Gln Asp Ser Lys Val Arg
                85                  90                  95
Ser Val Ser Ala Val Gly Ile Thr Ala Val Glu Pro Asp Leu Arg Lys
            100                 105                 110
His Asn Asp Arg Asp Asn Ala Val Gly Leu Val Glu Phe Tyr Asp Gly
        115                 120                 125
Lys Ile Ala Tyr Phe Tyr Ala Ser Arg Met Met Ala Ala Gly Gln Glu
```

```
    130                 135                 140
Asp Thr Thr Glu Ile Ile Gly Thr Gln Gly Lys Leu Thr Ile Asn Ala
145                 150                 155                 160
Gln Pro Ala Met Asn His Val Asn Ile Phe Asp Ser Thr Gly Val Arg
                165                 170                 175
Arg Glu Ile Pro Gln Asn Tyr Tyr Asp Arg Phe Glu His Ala Phe Val
            180                 185                 190
Ala Glu Ala Asn Glu Phe Thr Ala Ala Cys Leu Asp Asn Lys Asp Val
        195                 200                 205
Pro Val Lys Leu Glu Gly Ala Val Gln Ala Val Arg Ile Gly Cys Val
    210                 215                 220
Leu Gln Glu Ser Leu Ile Thr Gly Gln Lys Ile Phe Phe Asp Glu Ala
225                 230                 235                 240
Gly Asn Arg Ile Asp Lys Pro Arg Leu
                245
```

<210> 30279
<211> 88
<212> PRT
<213> A.fumigatus

<400> 30279

```
Gln Pro Ile Arg Phe Asp Lys Tyr Asp Ile Asn Gln Arg Phe Glu Tyr
1                   5                  10                  15
Val Phe Ser Glu Glu Val Asn Asp Phe Asp Ala Asp Asp Tyr Arg Arg
            20                  25                  30
Ile Lys Val Thr His Ser Thr Gly His Ile Val Pro Ile Leu His Phe
        35                  40                  45
Thr Ala Ser Asn Gly Leu Leu Ile Leu Ser Val Asp Lys Ser Glu Leu
    50                  55                  60
Leu Val Asn Leu Pro Asn Met Lys Leu Leu Asn Tyr Leu Ser Ile Pro
65                  70                  75                  80
Thr Val Ser Gln Ile Gln Lys Val
                85
```

<210> 30280
<211> 137
<212> PRT
<213> A.fumigatus

<400> 30280

```
His Ser Leu Tyr Asp Arg Asp Val Leu Arg Arg His Trp Thr Thr Cys
1                   5                  10                  15
Ala Lys Arg Leu Gln Ser Gly Gln Glu Ile Pro Lys Ala Glu Ser Gly
            20                  25                  30
Gly Lys His Arg His Ala Cys Asp Val Cys Ala Arg Leu Lys Lys Ala
        35                  40                  45
Cys Asn Gly Leu Gln Pro Cys Ala Glu Cys Glu Ser Arg Gly Lys Leu
    50                  55                  60
Cys Ser Tyr Glu Arg Leu Thr Gly Gly Gln Pro Pro Arg Gly Lys Arg
65                  70                  75                  80
Arg Glu Leu Met Ser Val Tyr Ser Glu Gln Gln Asp Trp Glu Thr Lys
                85                  90                  95
Asp Phe Gly Tyr Gln Thr Leu Leu Pro Ser Lys Ala Ser Met Leu Glu
            100                 105                 110
Val Gln Ser Gln Cys Arg Ser Ile Thr Trp Gly Ile Asn Arg Gly Pro
```

```
        115                 120                 125
Ile Ala Thr Asn Ser Ile Arg Gln Val
    130                 135

<210> 30281
<211> 271
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (222),(263)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30281
Pro Asp Ala Met His Leu Leu Arg Val Val Leu Pro Leu Leu Ser Leu
1               5                  10                  15
Ser Pro Ala Gly Leu Ala Ala Pro Ala Ser Pro Ala Ala Pro Thr Val
            20                  25                  30
Thr Ile Ala Ser Pro Ala Ala Thr Ile Val Gly Ser Ser Gly Lys Val
        35                  40                  45
Glu Lys Phe Asn Ala Ile Pro Phe Ala Gln Pro Pro Thr Gly Pro Leu
    50                  55                  60
Arg Leu Lys Pro Pro Gln Pro Ile Gln Lys Pro Leu Gly Thr Ile Asp
65                  70                  75                  80
Gly Thr Gly Ser Ala Lys Ser Cys Pro Gln Phe Phe Phe Ser Thr Asp
                85                  90                  95
Asn Ser Glu Phe Pro Gly Ser Val Ala Gly Leu Leu Ala Asn Leu Pro
            100                 105                 110
Leu Phe Gln Thr Val Thr Asn Ala Gly Glu Asp Cys Leu Thr Leu Asn
        115                 120                 125
Val Ala Arg Pro Ser Gly Thr Ala Pro Gly Ala Lys Leu Pro Val Leu
    130                 135                 140
Val Trp Ile Tyr Gly Gly Gly Phe Glu Leu Gly Ala Thr Ala Thr Tyr
145                 150                 155                 160
Asp Ala Thr Ser Leu Val Ala Ser Ser Ile Asp Leu Gly Met Pro Ile
                165                 170                 175
Val Phe Val Ala Met Asn Tyr Arg Thr Gly Gly Phe Gly Phe Leu Pro
            180                 185                 190
Gly Lys Glu Ile Leu Ala Asp Gly Ala Ala Asn Leu Gly Leu Leu Asp
        195                 200                 205
Gln Arg Leu Ala Leu Gln Trp Val Ala Asp Asn Ile Ala Xaa Phe Gly
    210                 215                 220
Gly Asp Pro Asp Lys Val Thr Ile Trp Gly Glu Ser Ala Gly Ser Ile
225                 230                 235                 240
Ser Val Phe Asp His Met Ile Leu Tyr Asp Gly Asp Asn Thr Tyr Lys
                245                 250                 255
Gly Glu Ala Arg Val Pro Xaa Arg His His Glu Pro Arg Val Ala
            260                 265                 270

<210> 30282
<211> 151
<212> PRT
<213> A.fumigatus

<220>
```

<221> UNSURE
<222> (8)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30282
Pro Cys Leu Gly Arg Arg Gln Xaa Pro Gln Cys Cys Pro Pro Pro Thr
1 5 10 15
Ala Gly Pro Gly Val Gly Pro Arg Ala Pro Gly Trp Pro Pro His Pro
20 25 30
Pro Gly Ser Pro Ser Pro Ala Gly Ser Gln Ile Pro Pro Phe Asp Ser
35 40 45
Ser Ser Arg Gln Arg Gln Leu Ala Tyr Pro Gly Arg Ser Ser Leu Pro
50 55 60
Leu Ala Arg Ser His Arg Thr Trp Pro Trp Arg Pro Ala Arg Ser Arg
65 70 75 80
Arg Arg Arg Ser Thr Arg Gly Arg Ala Ala Ser Arg Leu Glu Leu Cys
85 90 95
Arg Thr Asp Ala Pro His Ser Gly Ser Gly Asn Pro Leu Gln His Leu
100 105 110
Ser Arg Ser Gly Arg Gly Glu Gly Trp Pro Arg Asp Arg Arg Arg Thr
115 120 125
Pro Glu Thr Arg Cys Cys Pro Ser Lys Lys Arg Thr Glu Asp Thr Thr
130 135 140
Trp Arg Tyr Pro Cys Arg Gln
145 150

<210> 30283
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30283
Ser Asp Ile Ile Asn Ser His Asn His Leu Asp Cys Leu Ser Cys Lys
1 5 10 15
Phe Asp Gly Ala Gly Ala His Gln Lys Trp Leu Gln Asp Val Leu Leu
20 25 30
Cys Asp Val Val Ala His Thr Ala Ala Thr Asp Thr Asp Thr Ser Ile
35 40 45
Val Leu Ala Leu Ser Val Ala Val Ser Gln Leu Gly Asp Asn Leu Asp
50 55 60
Arg Ile Gln Thr Ser Val Leu Gly
65 70

<210> 30284
<211> 222
<212> PRT
<213> A.fumigatus

<400> 30284
Gln Leu Gly Asn Met Lys Gly Gln Ser Ile Thr Ala Phe Ile Lys Gly
1 5 10 15
Leu Lys Val Ile Leu Ala Gln Met Glu Ala Leu Pro Gln Ser Ser Cys
20 25 30
Gln Lys Lys Ala Ile Lys Arg Ala Val Thr Pro Leu Pro Thr Ile Asp
35 40 45
Ile Asp Leu Gly Asp Asp Glu Leu Phe Pro Cys Glu Cys Ser Leu Gln

```
    50                  55                  60
Gly Ile Asn Ser Leu Asp Val Thr Tyr Leu Ser Asn Pro Leu Arg Ser
65                  70                  75                  80
Ser Leu Lys Thr Lys Glu Cys Gly Leu Asp Tyr Ile Arg Arg Ala Leu
                85                  90                  95
Asp Val Leu Glu Pro Met Ser Thr Cys Thr Arg Cys Thr Gly Lys Asp
            100                 105                 110
His Val Arg Thr Phe Leu Tyr Arg Phe Cys Arg Thr Ile Leu Gln Arg
        115                 120                 125
Cys Arg Val Phe Tyr Gln His Leu Val Arg Thr Tyr Glu Gly Lys Asp
    130                 135                 140
Gln Gln Pro Leu Leu Leu Asp Asp Tyr Gln Leu Ala Thr Val Glu Glu
145                 150                 155                 160
Arg Ala Ala Leu Leu Cys Met Leu Thr Tyr Val Glu Ile Lys Arg Phe
                165                 170                 175
His Val Cys Val Gly Ser Ile Ile Glu Thr Leu Gly Asp Gln Pro Met
            180                 185                 190
Phe Asp Glu Asp Ser Trp Ala Val Ile Lys Gly Gln Ala Tyr Lys Leu
        195                 200                 205
Ala Val Asp Thr Ala Glu Leu Arg Phe Lys Ser Ile His Cys
    210                 215                 220

<210> 30285
<211> 102
<212> PRT
<213> A.fumigatus

<400> 30285
Gly Ala Arg Glu Leu Ala Gly Thr Glu Ala Ile Cys Trp Lys Ala Phe
1               5                   10                  15
Ala Asp Ala Met Glu Val Ile Pro Thr Thr Leu Ala Glu Tyr Ala Gly
            20                  25                  30
Leu Asn Ser Ile Lys Val Val Thr Glu Leu Arg His Arg His Ala Gln
        35                  40                  45
Gly Gln His Asn Ala Gly Val Ser Ile Arg Ser Gly Gly Val Arg Asp
    50                  55                  60
Asp Ile Thr Glu Glu Asn Ile Leu Gln Pro Leu Leu Val Ser Thr Ser
65                  70                  75                  80
Ala Ile Glu Leu Ala Ala Glu Thr Val Lys Met Ile Met Arg Ile Asp
                85                  90                  95
Asp Ile Ala Leu Ser Arg
            100

<210> 30286
<211> 112
<212> PRT
<213> A.fumigatus

<400> 30286
Gln Ser Lys Leu Ser Gln Arg Arg Asn Asn Met Arg Arg Asn Tyr Leu
1               5                   10                  15
Pro Ile Glu Thr Leu Ser Ser Trp Ala Lys Leu Asn Gly Ile Ser Leu
            20                  25                  30
Glu Gly Ile Ala Phe Gln Lys Leu Tyr Ser Glu His Gly Thr Asp Lys
        35                  40                  45
Gly Ser Ala Ile Val Ala Thr Ala Glu Lys Lys Asp Glu Glu Gly Glu
```

```
    50                  55                  60
Ala Asn Thr Leu Leu Thr Val Pro Ser Asp Leu Ala Leu Thr Leu Glu
65                  70                  75                  80
Tyr Val His Asn His Ala Lys Ile Asp Arg His Leu Arg Glu Val Leu
                85                  90                  95
Asp Ala Val Gly Asp Phe Gly Arg Val Cys Tyr Arg Ser Arg Ser Leu
            100                 105                 110
```

<210> 30287
<211> 179
<212> PRT
<213> A.fumigatus

<400> 30287

```
Tyr Val Gln Thr Ala Arg Gly Ala Ile Leu Ile Phe Leu Ile Ile Gln
1               5                   10                  15
Ile Thr His Ala Ser Pro Glu Phe Val Asn Lys Arg Gln Lys Ile Gly
            20                  25                  30
Ile Ser Asn Pro Trp Thr Glu Tyr Ile Arg Phe Met Pro Ala Ser Val
        35                  40                  45
Leu Leu Pro Thr Phe Tyr Ser Ala Glu Glu Arg Glu Leu Leu Arg Gly
    50                  55                  60
Thr Ser Leu Gln Thr Ala Val Asp Ala Lys Leu Gly Ser Leu Glu Lys
65                  70                  75                  80
Glu Phe Asp His Leu Arg Gln Ala Thr Glu Glu Ile Pro Trp Cys Gln
                85                  90                  95
Glu His Trp Trp Asp Glu Asp Thr Gly Lys Phe Thr Phe Asp Asp Trp
            100                 105                 110
Lys Tyr Val Asp Ala Val Tyr Arg Ser Arg Val Val Asp Leu Pro Arg
        115                 120                 125
Ser Gly His Ala Ile Val Pro Cys Val Asp Met Ala Asn His Ala Cys
    130                 135                 140
Glu Asp Ser Val Lys Ala Arg Tyr Asp Glu Glu Gly Ala Gly Asn Ala
145                 150                 155                 160
Val Leu Gln Leu Arg Thr Gly Lys Lys Leu Arg Val Gly Glu Glu Val
                165                 170                 175
Thr Ile Ser
```

<210> 30288
<211> 79
<212> PRT
<213> A.fumigatus

<400> 30288

```
Phe Ile Ser Cys Val Lys Ser Pro Thr Gly Ser Pro Val Pro Lys Arg
1               5                   10                  15
Tyr Leu Val Ile Val Met Ile Asp Phe Glu Asp Ile Ser Thr Thr Leu
            20                  25                  30
Pro Ile Pro Asn Ser His Tyr Leu Gln Trp Gly Thr His Asn Ile Gln
        35                  40                  45
Ser Val Thr Glu Lys His Glu Pro Ala Ile Leu Asp Ser Ser Leu Thr
    50                  55                  60
Tyr Ile Glu Ser Phe Ile Gly Gly Val Arg Val Thr Thr Leu Gly
65                  70                  75
```

<210> 30289
<211> 131
<212> PRT
<213> A.fumigatus

<400> 30289
Pro Pro Arg Asp Thr Pro Leu Thr Glu Glu Ile Gln Tyr Thr Val Pro
1 5 10 15
Gly Thr Thr Leu Leu Gln Gly Leu Leu Ser Leu Leu Ser Thr Tyr Ile
20 25 30
Arg Asp Thr His Gly Asn Met Asp Leu Ala Asn Leu Ser Gln Leu Gln
35 40 45
Thr Glu Ala Val Asn Pro Arg Thr Ala Gln Ile Asp Gln Ile Ser Thr
50 55 60
Leu Glu Met Cys Arg Leu Ile Asn Glu Glu Asp His Cys Val Ala Pro
65 70 75 80
Ser Leu Thr Pro Cys Ile Arg Gln Ile Ala Ala Ala Ile Asp Ala Leu
85 90 95
Thr Pro Arg Val Arg Asn Gly Gly Arg Val Ile Tyr Val Gly Ala Gly
100 105 110
Thr Ser Gly Arg Ser Gly Phe Leu Ser Asn Thr Tyr Leu Ala Glu Arg
115 120 125
Met Arg Asn
130

<210> 30290
<211> 172
<212> PRT
<213> A.fumigatus

<400> 30290
Thr Phe Asp Ala Cys Gly Glu Asp His Pro Gly Ser Ala Ser Leu Pro
1 5 10 15
Arg Glu Pro Arg Trp Ser Thr Ser Gln Pro Thr Gln Thr Val Trp Arg
20 25 30
Leu Pro Ala Pro Pro Tyr Arg Ala Pro Ser Pro Ser Gln Thr Ala Ser
35 40 45
Trp Pro Ala Trp Pro Ala His Ser Ser Ala Thr Pro Ser Arg Pro Gln
50 55 60
Ser Pro Gly Thr Ser Cys Thr Arg Arg Gln Gly Trp Pro Pro Arg Arg
65 70 75 80
Gly Asn Ser Ile Ala Arg Pro Ser Thr Ser Ser Lys Ile Pro Ala Lys
85 90 95
Arg Arg Arg Arg Pro His Arg Arg Tyr Thr Gly Lys Ser Asp Arg Trp
100 105 110
Thr Ala Arg Ser Ala Cys Ser Arg Cys Pro Val Tyr Ala Pro Gly Pro
115 120 125
Cys Ala Asp His Thr Ile Ser Gly Thr His Thr Pro Arg Pro Arg Trp
130 135 140
Pro Cys Arg Ser Arg Arg Gly Thr Ala Ser Pro Pro Val Arg Gly Ser
145 150 155 160
Gly Gly Ser Pro Ala Ala Tyr Arg Gly Ser Gly Arg
165 170

<210> 30291
<211> 140

<212> PRT
<213> A.fumigatus

<400> 30291
Ser Thr Lys Arg Ile Ile Ala Ser Pro Leu Val Ser His His Ala Ser
1 5 10 15
Ala Arg Leu Pro Pro Pro Leu Met Arg Ser Leu His Ala Cys Glu Thr
20 25 30
Ala Asp Glu Ser Ser Thr Ser Val Gln Gly Gln Val Glu Gly Gln Asp
35 40 45
Ser Cys Pro Thr Arg Ile Ser Pro Lys Gly Cys Val Thr Asp Leu Asp
50 55 60
Asp Arg Leu Gly Ile Leu Asp Ala Ser Glu Ile Pro Pro Thr Phe Ala
65 70 75 80
Ala Pro Pro Ser Gln Phe Val Gly Leu Ile Ala Gly Gly Asp Ala Leu
85 90 95
Phe Asp Glu His Lys Lys Gly Pro Lys Thr Val Phe Pro Arg Gly Lys
100 105 110
Pro His Ile Ala Thr Phe Glu Ala Gln Ser Pro Thr Gly Lys Arg Pro
115 120 125
Pro Val Ser Pro Ala Ser Gly Arg Tyr Pro Leu Ile
130 135 140

<210> 30292
<211> 78
<212> PRT
<213> A.fumigatus

<400> 30292
Glu Cys Gln Ser Gly Ser Tyr Arg Thr Cys Leu Trp Arg Met Gln Ile
1 5 10 15
Ser Tyr Pro Thr Ser Ser Gly Leu Glu Ser Tyr Ser Asp Leu Pro Gln
20 25 30
Asp Ile Ser Tyr Ala Leu Ala Met Tyr Val Ile Tyr Glu Leu Thr Lys
35 40 45
His Arg Arg Arg Asp Arg Leu Pro Ile Gly Leu Leu Thr Pro His Phe
50 55 60
Gly Arg Lys Gly Gln Gly His Pro Gly Leu Ile Met Ala Arg
65 70 75

<210> 30293
<211> 490
<212> PRT
<213> A.fumigatus

<400> 30293
Cys Arg Arg Gly Val Gly Arg Ser Leu Pro Thr Ala Val Thr Ala Ile
1 5 10 15
Ser Asp Leu His Thr Leu Met Val Pro Asp Leu Ala Asp Gln Leu His
20 25 30
Leu Phe Leu Leu Pro Arg Gly Met Val Ser Phe Asn Cys Phe Ser Pro
35 40 45
Ser Leu Thr Leu Val Ala Asp Val Gln Cys Ser Leu Arg Leu Gly Arg
50 55 60
Leu Arg Thr Gly Arg Pro Asp Ser Cys Cys Gln Arg Asp Ser Ser Pro
65 70 75 80

```
Ala Arg Gly Asn Ser Cys Tyr Gly Phe Val His Arg Arg Thr Asn Leu
                85                  90                  95
Arg Pro Cys Arg Thr Ser Ser Val Leu Ala Asp Arg Arg Met Asp Leu
            100                 105                 110
Leu Leu Ile Leu Gly Lys Ser Ile Met Leu Gln Pro Tyr Glu Pro Val
        115                 120                 125
Pro Pro Ala Met Thr Asn Thr Asp Ser Val Asp Thr Ala Asn Gly Ala
    130                 135                 140
Phe Val Ile Ala Ala Gly Ala Ile Leu Gly Val Gly Ala Ser Phe Leu
145                 150                 155                 160
Trp Val Ala Gln Gly Ala Ile Met Thr Thr Tyr Val Pro Glu Ser Gln
                165                 170                 175
Lys Gly Arg Ala Ile Ala Ala Phe Trp Ile Ile Phe Asn Leu Gly Gly
            180                 185                 190
Gly Val Gly Ser Leu Ala Ser Phe Gly Leu Asn Tyr His Ser His Ser
        195                 200                 205
Gly Thr Val Thr Asp Gly Thr Tyr Ile Ala Leu Leu Ile Ile Met Ala
    210                 215                 220
Ile Gly Trp Leu Leu Gly Ser Leu Ile Cys Pro Pro Ala Ser Val Arg
225                 230                 235                 240
Val Gln Arg Leu Gln Pro Thr Ala Glu Thr Glu Lys Asn Trp Arg Arg
                245                 250                 255
Thr Ala Gln Leu Thr Ala Gln Thr Met Asn Asp Trp Arg Val Leu Cys
            260                 265                 270
Met Ile Pro Met Phe Phe Cys Ala Asn Val Phe Tyr Ser Tyr Gln Gln
        275                 280                 285
Asn Ile Val Asn Gly Met Thr Phe Asn Ile Arg Thr Arg Ser Leu Asn
    290                 295                 300
Gly Ser Leu Tyr Trp Ile Ala Gln Met Leu Gly Gly Leu Val Ile Gly
305                 310                 315                 320
Leu Ile Leu Asp Met Pro Arg Val Asn Arg Gln Asn Arg Ala Arg Val
                325                 330                 335
Gly Trp Leu Phe Leu Phe Ala Thr Gly Met Ala Ile Trp Gly Gly Gly
            340                 345                 350
Tyr Ala Phe Gln Lys Trp Tyr Asp Arg Arg Met Ala Gln Gly His Lys
        355                 360                 365
Gln Asp Ile Asp Tyr Thr Gln Ser Gly Leu Ser Thr Gly Pro Ile Phe
    370                 375                 380
Leu Tyr Ile Phe Tyr Gly Ala Tyr Asp Ala Phe Trp Gln Gly Phe Cys
385                 390                 395                 400
Tyr Trp Leu Met Gly Ala Arg Ser Asn Ser Pro Ala Val Ala Ala Ile
                405                 410                 415
Leu Val Gly Ala Tyr Lys Thr Phe Gln Ala Thr Gly Gly Ala Met Ala
            420                 425                 430
Trp Arg Leu Asn Ala Leu Ala Lys Pro Ala Met Thr Gln Phe Ala Met
        435                 440                 445
Asp Trp Gly Leu Cys Met Gly Ala Leu Val Val Ala Ile Pro Ser Val
    450                 455                 460
Leu Ala Val Thr Leu Thr Ser Glu Val His Glu Glu Val Arg Gln Thr
465                 470                 475                 480
Gln Asp Gly Leu His His Arg Arg Arg Arg
                485                 490
```

<210> 30294
<211> 81
<212> PRT

<213> A.fumigatus

<400> 30294
Arg Trp Leu Gln Met Tyr Asn Ala Leu Ser Gly Leu Gly Gly Ser Gly
1 5 10 15
Gln Val Asp Pro Thr Val Ala Ala Asn Ala Thr Val Ala Leu Leu Ala
20 25 30
Ala Thr Ala Ala Thr Ala Leu Phe Ile Val Gly Pro Ile Phe Asp Arg
35 40 45
Val Gly Pro Arg Val Cys Leu Leu Ile Gly Gly Trp Thr Tyr Ser Leu
50 55 60
Tyr Ser Gly Ser Leu Leu Cys Phe Asn Arg Met Asn Pro Phe Pro Leu
65 70 75 80
Gln

<210> 30295
<211> 203
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (2),(5)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30295
Arg Xaa Val Val Xaa Gln Thr Lys Ser Gly Gln Arg Ser Leu Val Gly
1 5 10 15
Phe Gly Val Leu Ile Tyr Gln Met Leu Leu Gln Gln Ser Pro Phe Arg
20 25 30
Gly Glu Asp Glu Asp Glu Ile Tyr Asp Ala Ile Leu Ala Asp Glu Pro
35 40 45
Leu Tyr Pro Ile His Met Pro Arg Asp Ser Val Ser Ile Leu Gln Lys
50 55 60
Leu Leu Thr Arg Glu Pro Glu Leu Arg Leu Gly Ser Gly Pro Thr Asp
65 70 75 80
Ala Gln Glu Val Met Ser His Ala Phe Phe Arg Asn Ile Asn Trp Asp
85 90 95
Asp Ile Tyr His Lys Arg Val Pro Pro Pro Phe Leu Pro Thr Ile Ser
100 105 110
Ser Pro Thr Asp Thr Ser Asn Phe Asp Gln Glu Phe Thr Ser Val Thr
115 120 125
Pro Val Leu Thr Pro Val Gln Ser Gly Lys Leu Ser Pro Val Gly Ile
130 135 140
Gly Gly Phe Lys Ala Asn Asp Val Ile Ser Ser Ser Leu Pro Ser Asp
145 150 155 160
Ala Gly Gly Ile Pro Arg Leu Leu Val His Arg Gly Leu Arg Leu Gly
165 170 175
Tyr Ser Val Leu Ile Glu Asn Tyr Arg Asp Ile Ala Phe Val Ala His
180 185 190
Ser Pro Asn Gln Val Leu Gly Thr Phe Ala Phe
195 200

<210> 30296
<211> 123

<212> PRT
<213> A.fumigatus

<400> 30296
Gln Leu Gly Val Leu Cys Pro Arg Arg Gly Arg Val Glu Asp Gly His
1 5 10 15
Asn Val Leu Val Ser Thr Thr Leu Ala Val Glu Ser Leu Phe Pro Cys
20 25 30
Lys Asp Arg Tyr Leu Pro Asp Tyr Ser Glu Ser Ser Leu Ser Ser Arg
35 40 45
Leu Glu Ala Ile Ser Ala Tyr Asp Ala Asp Thr Thr Leu Ile Pro Gln
50 55 60
Gln Thr Ser His Tyr Glu Tyr Gly Ala Glu Ser Ile Ala Pro Trp Ser
65 70 75 80
Glu Thr Asn Val Ser Asn Thr Leu Pro Gln Thr His Thr Thr Thr Thr
85 90 95
Gly Asp Thr Val Thr Lys Pro Ala Lys Gln Ala Arg Lys Met Ala Glu
100 105 110
Tyr Thr Ala Gly Ala Arg Ile Arg Arg Lys Arg
115 120

<210> 30297
<211> 108
<212> PRT
<213> A.fumigatus

<400> 30297
Leu Ser Pro Asp Gln Lys Leu Arg Ile Phe His Lys Ser Lys Ile Leu
1 5 10 15
Pro Leu Glu Ser Gln Asp Ser Thr Leu Leu Val Ser Thr Val Gly Arg
20 25 30
Phe Thr Ala Ala Asn Leu Gly Asn Leu Gln Ile Glu Phe Pro Ser Val
35 40 45
Leu Leu Pro Asn Ser Ile Thr Ser Gly Ser Ile Val Asp Ile Thr Val
50 55 60
Ser Arg Asn His Ala Ala Glu Ala Ala Ser Thr Ser Ala Phe Gln Ala
65 70 75 80
Leu Gln Lys Arg Ile Leu Asn Thr Tyr Arg Val Lys Thr Leu Pro Leu
85 90 95
Leu Ser Ser Gly Ser Ala Thr Gln Gln Lys Thr Ser
100 105

<210> 30298
<211> 66
<212> PRT
<213> A.fumigatus

<400> 30298
Asp Cys Leu Arg Val Ile Ala His Val Glu Leu Thr Cys Ala Phe Asp
1 5 10 15
Lys Leu Pro Leu Tyr Ser Leu Ser Gly His His Ala Lys Val Lys Val
20 25 30
Arg Phe Trp Gly Leu Pro Arg Ser Ser Gly His Arg Leu Leu Ala His
35 40 45
Gln Tyr Ser Val Glu Ala Lys Ser Gln Lys Thr Ala Asn Thr Asn Gly
50 55 60

Glu Arg
65

<210> 30299
<211> 75
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30299
Lys Cys Xaa Ala Thr Ala Glu Trp Lys Pro Cys Ser Ser Thr Ala Lys
1 5 10 15
Asn Glu Arg Asp Pro Ser Glu Gly Asn Leu Arg Lys Lys Val Arg Ile
20 25 30
Asn Gln Gly Glu Ile Ser Pro Leu Ser Leu Gly Asp Tyr Gln Lys Gln
35 40 45
Lys Gly Gln Leu Thr Pro Lys Leu Pro Cys Gln Pro Ser Gln Lys Phe
50 55 60
Pro Gly Pro Thr Ala Asn Ala Arg Thr Thr Pro
65 70 75

<210> 30300
<211> 155
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (94),(106),(116)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30300
Arg Val Ala Ser Met Pro Lys Asn Lys Gly Lys Val Ser Cys Arg Tyr
1 5 10 15
Tyr Ser Val Ser Leu Pro Glu Ser Thr Pro Leu Ala Lys Val Phe His
20 25 30
Cys His Phe Val Val Ser Ala Cys Leu Ala Ala Leu His Glu Arg Gly
35 40 45
His His Gly Ile Glu Asn Asp Arg Lys Ile Leu Asp Phe Asp Ile Ala
50 55 60
Thr Asp Phe Leu Ile Phe Ser Tyr Trp Met Leu Thr Phe Val Leu Gln
65 70 75 80
Gly Gly Lys Asn Arg Arg Arg Gly Lys Asn Glu Asn Asp Xaa Glu Lys
85 90 95
Arg Glu Leu Val Phe Gln Glu Lys Ser Xaa Glu Tyr Ala Gln Val Leu
100 105 110
Lys Met Leu Xaa Asn Gly Arg Met Glu Ala Met Phe Phe Asp Arg Glu
115 120 125
Lys Arg Thr Gly Pro Ile Arg Arg Gln Pro Glu Glu Lys Gly Pro Asp
130 135 140
Gln Pro Gly Arg Asn Leu Pro Pro Leu Pro Gly
145 150 155

<210> 30301
<211> 93
<212> PRT
<213> A.fumigatus

<400> 30301
Tyr Pro Arg Ala Glu Asn Gly Asn Leu Asp Arg Leu Pro His His Val
1 5 10 15
Arg Asp Arg Ser Ser Cys Leu Gly Val His Arg Pro Asp Arg Ile Arg
20 25 30
Ile Leu Gly Val Val Leu Gln Ser Ile Ser Ala Asn Tyr Gly Met Phe
35 40 45
Leu Ala Ala Arg Phe Leu Ile Gly Phe Gly Val Ala Ile Ala His Gly
50 55 60
Ala Ser Pro Leu Leu Ile Thr Glu Leu Val His Thr Gln His Arg Ala
65 70 75 80
Ile Phe Thr Thr Ile Tyr Asn Ser Lys Asp Arg Leu Pro
85 90

<210> 30302
<211> 274
<212> PRT
<213> A.fumigatus

<400> 30302
Pro Ala Ile Ala Thr Trp Tyr Leu Gly Ala Ile Val Ala Ala Trp Leu
1 5 10 15
Thr Phe Gly Thr Asn Asn Ile Asp Ser Asn Trp Ser Trp Arg Ala Pro
20 25 30
Thr Val Val Gln Ala Ala Pro Ser Ile Leu Gln Ile Val Phe Val Trp
35 40 45
Phe Val Pro Glu Ser Pro Arg Phe Leu Ile Tyr Lys Gly Lys Asp Glu
50 55 60
Gln Ala Leu Lys Val Leu Ala Asp Cys His Ala Asn Gly Asn Gln Gln
65 70 75 80
Asp Glu Val Val Gln Leu Glu Met Gln Glu Ile Lys Glu Thr Ile Arg
85 90 95
Leu Glu Lys Glu Phe Glu Ser Ser Ser Trp Met Glu Leu Val Arg Thr
100 105 110
Lys Gly Asn Arg His Arg Leu Ile Ile Cys Ile Thr Ala Gly Phe Phe
115 120 125
Ser Gln Trp Ser Gly Asn Gly Leu Val Ser Tyr Tyr Ile Ala Lys Ile
130 135 140
Leu Thr Ser Ile Gly Tyr Thr Ser Ser Val Gln Gln Asn Leu Ile Asn
145 150 155 160
Gly Cys Leu Gln Ile Leu Asn Met Ile Val Ala Leu Thr Met Cys Phe
165 170 175
Phe Val Asp Lys Ile Gly Arg Arg Lys Leu Phe Leu Val Ser Thr Ala
180 185 190
Gly Met Leu Val Ala Phe Val Val Trp Thr Ile Cys Ser Ala Arg Tyr
195 200 205
Ala Ile Ala Gly Asn His Asn Ala Ala Asn Ala Val Ile Ala Met Ile
210 215 220
Tyr Leu Tyr Tyr Val Phe Tyr Asn Ile Ala Trp Ser Gly Leu Leu Val
225 230 235 240

```
Gly Tyr Thr Val Glu Ile Leu Pro Tyr Ser Ile Arg Ala Lys Gly Met
                245                 250                 255
Thr Val Met Trp Leu Cys Ile Asp Leu Ala Cys Lys Trp Phe Arg Arg
            260                 265                 270
Arg Val
```

<210> 30303
<211> 70
<212> PRT
<213> A.fumigatus

<400> 30303

```
Arg Ser Ala Val Phe Phe Asn Gln Tyr Ile Asn Pro Ile Ala Leu Glu
1               5                   10                  15
Asn Leu Gly Trp Lys Tyr Tyr Ile Phe Tyr Cys Val Trp Leu Gly Val
            20                  25                  30
Glu Leu Thr Val Val Trp Phe Phe Tyr Ile Glu Thr Arg Asn Thr Pro
        35                  40                  45
Leu Glu Glu Ile Ala Lys Ser Leu Arg Ser Ser Leu Thr Gly Ala Gly
    50                  55                  60
Arg Pro Arg Ala Tyr Val
65                  70
```

<210> 30304
<211> 94
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (39),(64),(85),(87)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30304

```
Thr Ser Pro Arg Ser Gly Ser Leu Gly Leu Pro His Arg Ser Gly Asp
1               5                   10                  15
Asn His Arg Pro Ala Gly His Gly Ala Ala Gly Pro Asp Arg Thr Arg
            20                  25                  30
Pro Gly His Ala Gly Gln Xaa His Gly Gly Gly Ala Arg Asp Leu Arg
        35                  40                  45
Ala Thr Arg Val Pro Gly Gly Val Pro Gly Pro Arg Ala Leu His Xaa
    50                  55                  60
Gly Gln Gly Pro His Arg Ser Asp Cys Ala Ser Ala Cys Cys Ser Tyr
65                  70                  75                  80
Cys Arg Lys Cys Xaa Pro Xaa Ala Ile Ala Ala Glu Leu Arg
                85                  90
```

<210> 30305
<211> 190
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (136),(160),(182),(183)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30305
Met His Thr Asp Thr Asp Val Asp Arg Thr Glu His Gln Met Ala Thr
1 5 10 15
Arg Lys Cys Arg Gly Glu Asp Ala Leu Asp Pro Glu Gln Pro Ser Leu
20 25 30
Pro Pro Ser Glu Ala Asn Glu His Leu Val Glu Ile Pro Gly Val Gln
35 40 45
Arg Ser Leu Ile Ser Leu Thr Gly Arg Ala Phe Glu Arg Ala Leu Leu
50 55 60
Trp Arg Leu Asp Trp Tyr Asn Leu Met Tyr Ala Pro Pro Thr Arg Pro
65 70 75 80
Pro Thr Ser Ser His Leu Val Glu Gln Cys Thr Ala Ile Asp Val Tyr
85 90 95
Arg Arg Val Leu Ala Leu Val Ala Ser Gly Tyr Arg Thr Glu Ala Val
100 105 110
Thr Ile Ile Gly Gln Gln Val Met Ala Pro Arg Gly Leu Ile Gly Leu
115 120 125
Gly Gln Asp Thr Leu Asp Ser Xaa Thr Ala Glu Val Arg Glu Ile Phe
130 135 140
Glu Leu Leu Val Phe Pro Ala Ala Tyr Pro Val Leu Val His Cys Xaa
145 150 155 160
Gln Gly Lys Asp Arg Thr Gly Leu Ile Val Leu Leu Leu Ala Ala Pro
165 170 175
Thr Ala Gly Ser Val Xaa Xaa Met Pro Ser Pro Arg Asn Tyr
180 185 190

<210> 30306
<211> 60
<212> PRT
<213> A.fumigatus

<400> 30306
Tyr Lys Met Glu Ile Leu Lys Leu Ala Phe Ala Ser Pro Glu Ile Asn
1 5 10 15
Pro Val Asn His Lys Ala Arg Ser Ile Pro Val Leu Asn Pro Val Asp
20 25 30
Arg Tyr Gly Arg Val Phe Phe Phe Ser Trp Phe Gly Phe Met Val Ala
35 40 45
Phe Leu Ser Trp Tyr Ala Phe Pro Pro Leu Val Ser
50 55 60

<210> 30307
<211> 61
<212> PRT
<213> A.fumigatus

<400> 30307
Arg Met Gly Lys Met Ala Asp Leu Ile Asp Cys Pro Met Val Asn Ser
1 5 10 15
Gln Ser Pro Gly Glu Phe Pro Ala Leu Thr Asn Phe Gly Trp Val Ser
20 25 30
Pro Ala Gln Ala Ile Trp Thr Arg Ser Gly Ser Pro Pro Gly Asp Asn
35 40 45
Gly Leu Lys Tyr Ala Gln Ser Leu Thr Phe Thr Ser Gly

50 55 60

<210> 30308
<211> 75
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (67)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30308
Ser Asp His Ala Val Ile Leu Ala Cys Ser Leu Met Phe Phe Ala Arg
1 5 10 15
Gln Ala Phe Ala Gln Ala Ile Lys Thr Ser Tyr Pro Asn His Leu Arg
20 25 30
Leu Ser Ile His Glu Ser Val Ala Gly Thr Lys Leu Ser Ile Ser Leu
35 40 45
Leu Asn Thr Lys Thr Gly Phe Thr Thr Pro Trp His Cys Ser Val Ala
50 55 60
Arg Pro Xaa Ser Pro Arg Cys Gln Gly Pro Arg
65 70 75

<210> 30309
<211> 136
<212> PRT
<213> A.fumigatus

<400> 30309
Arg Phe Arg Ser Gln Leu Glu Ala Pro Ser Gln Cys Ser Thr Met His
1 5 10 15
His Ser Asp Arg Met Phe His Lys Glu Ala Gly Ile Ser His Leu Ile
20 25 30
Leu Asp Ile Ile Leu Glu His Ala Leu Asn Lys Phe Asp Pro Ala Pro
35 40 45
Asp Arg Leu Gln Gly Ala Ala Lys Asn Phe Leu Pro Ile Ile Glu Arg
50 55 60
Phe Val Ala Ala Gly Thr Arg Ile Glu Ala Cys Leu Pro Ala Phe Pro
65 70 75 80
Phe Lys Ser Ala Asn Lys Val Tyr Lys Val Leu Gly Ser Leu Pro Asp
85 90 95
Lys Ala Glu Glu Leu Ala Leu Asp Arg Leu Asn Thr Met Cys Ala Arg
100 105 110
Val Arg Glu Val Tyr Pro Pro Gly Leu Gln Val Ala Ile Ile Ser Asp
115 120 125
Gly Ile Thr Tyr Asn Gly Arg Phe
130 135

<210> 30310
<211> 158
<212> PRT
<213> A.fumigatus

<400> 30310
Leu Gly Ser Ile Arg Ile Ile Ala Asn Gln Ser Ser Arg Ala Pro Leu

```
1               5                   10                  15
Asp Leu Leu Cys Ile Ser Asp Gln Asp Thr Trp Ala Tyr Gly Glu Ala
            20                  25                  30
Leu Arg Gln Met Ala Ala Gln Lys Gln Phe Met Tyr Ile Val Phe Ser
        35                  40                  45
Arg Ile Lys Asp Leu Leu Asp Ile Pro Leu Pro Glu Gln Met Ser Glu
    50                  55                  60
Ile Val Tyr Val Ala Asn Cys Thr Thr Phe Arg Arg Leu Leu Leu Asn
65                  70                  75                  80
Lys Tyr Glu Arg Ala Asp Leu Asp Ile Asp His Glu Ile Ala Ser Asn
                85                  90                  95
Pro Asp Thr Lys Leu Thr Tyr Leu Gly Tyr Arg Arg Phe Leu Glu Ser
            100                 105                 110
Asp Leu Lys Tyr Ile Phe Pro Arg Gly Ala His Arg Ser Ala His Ser
        115                 120                 125
Tyr Lys Arg Asp Cys Lys Tyr Leu Ala Lys Gln Met Leu Ile Arg Gly
    130                 135                 140
Asp Val Gly Glu Ala Thr Met Gln Leu Ser Trp Leu Ala Leu
145                 150                 155
```

<210> 30311
<211> 278
<212> PRT
<213> A.fumigatus

<400> 30311

```
Ala Gln Thr Val Ala Ala Ile Arg Tyr Tyr Leu Val Trp Asp Gln Cys
1               5                   10                  15
Pro Arg Leu Met Ser Lys Gly Lys Leu Glu Gln Val Ser Ala Ala Cys
            20                  25                  30
His His Leu Gly Phe Phe Asn Asn Ala Gly Leu Ser Ala His Tyr Lys
        35                  40                  45
Leu Ser Glu Ser Ser Ser Pro Ala Val Ala Asp Leu Arg Gly Leu Val
    50                  55                  60
Tyr Ala Ala Ala Gly Asp Leu Leu Arg Lys His Arg Ile Leu Phe Ala
65                  70                  75                  80
Ile Pro Val Asn Glu Gly Thr Pro Asn Pro His Phe Ala Cys Leu Pro
                85                  90                  95
Trp Ile Asp Leu Arg Arg Ser Ile Ala Phe Leu Glu Arg Ser Val Pro
            100                 105                 110
Leu Ala Ser Ala Ala Glu Glu Gln Asp Lys Glu Leu Asp Ala Ile Leu
        115                 120                 125
Glu Glu Gln His Asn Ile Asp Phe Gln Thr Asp Tyr Gly Thr Leu Pro
    130                 135                 140
Phe Trp Arg Leu Ile Ile Leu Arg Ser Lys Gly Arg Asn Asp Phe Thr
145                 150                 155                 160
Ala Ser Phe Ile Tyr His His Ala Ile Gly Asp Gly Val Ser Gly Leu
                165                 170                 175
Ala Phe His Lys Ala Phe Cys Asn Ala Leu Glu Ala Ala Ser Ser Ser
            180                 185                 190
Thr Leu Pro Pro Asp Arg Ala Glu Asn Ile Ile Arg Pro Asp Glu Asn
        195                 200                 205
Thr Val Val Leu Pro Pro Leu Glu Glu Leu His Pro Met Pro Ile Ser
    210                 215                 220
Pro Arg Gln Pro Pro Leu Pro Thr Ala Ser Pro Lys Glu Trp Thr Gly
225                 230                 235                 240
```

```
Ala Ser Ile His Leu Pro Cys Lys Ser Arg Trp Ala Ser Leu Tyr Ile
                245                 250                 255
Ser Pro Ser Ala Ser Asn Ala Phe Val Gln Glu Cys Lys Glu Met Lys
            260                 265                 270
Leu Ser Val Thr Ser Ala
        275
```

<210> 30312
<211> 605
<212> PRT
<213> A.fumigatus

<400> 30312

```
Lys Trp Lys Thr Gln Glu Val Leu Gln Asp Pro Gly Ala Glu Trp Leu
1               5                   10                  15
Leu Gly Lys Glu Glu Leu Arg Ala Phe Arg Ala Lys Ala Val Ile Trp
            20                  25                  30
Glu Arg Asp Pro His Ile Ser Arg His Arg Asp Asn Ala Ser Trp Arg
        35                  40                  45
Pro Ala Pro Gln Phe Ala Thr Pro Val Val Asn Gly Asp Arg Ala Ala
    50                  55                  60
Gly Val Asn Thr Ala Ser Gln Gly Thr Asp Tyr Asp Gly Ser Glu Glu
65                  70                  75                  80
Ser Phe Gln Gln Ala Gln Thr Glu Pro Ala Ser Gln Ile Ser Ala Ile
                85                  90                  95
Glu Asn Leu Val Ala Asn Asp Met Cys Leu Pro Ser Pro Ser Leu Ser
            100                 105                 110
Pro Val Ala Ala Leu Asn Ala Met Asn Val Asp Ser Ser Phe Glu Ser
        115                 120                 125
Ala Glu Asp Gln Glu Met Asp Thr Asp Ser Ser Leu Asp Asn Asn Ala
    130                 135                 140
Ser Arg Leu Ser Asn Val Arg His Leu Asp Asp Ser Lys Thr His Asn
145                 150                 155                 160
Leu Ser Pro Ser Arg Ser Gly Asn Leu Pro Gly Ala Ser Glu Ile Arg
                165                 170                 175
His Ala Ser Ser Leu Met Asp Ile Pro Ser Val Leu Asp Phe Phe Asp
            180                 185                 190
Ser Val Pro Glu Glu Leu Lys Thr Tyr Leu Met Tyr Gln Phe Leu Arg
        195                 200                 205
Arg Cys Pro Lys Pro Thr Leu His Phe Val Ala Asp Val Val Asn Pro
    210                 215                 220
Ala Leu Lys Cys Asp Phe Leu Ala Leu Leu Pro Leu Glu Leu Ser Leu
225                 230                 235                 240
Asn Ile Val Lys Tyr Phe Asp Val Gln Thr Met Cys Arg Ala Ala Gln
                245                 250                 255
Val Ser Lys Lys Trp Arg His Ile Ile Asn Ser Asp Glu Lys Thr Trp
            260                 265                 270
Lys Asp Leu Phe Asp Arg Asp Gly Tyr Val Leu Thr Asp Gly Glu Leu
        275                 280                 285
Glu Arg Ala Ile Lys Glu Gly Trp Gly Trp Gln Phe Pro His Gly Asp
    290                 295                 300
Asp Asp Trp Glu Lys Asp Leu Ser Ser Ser Ala Val Ile Lys Pro Glu
305                 310                 315                 320
Pro Asp Cys Ala Pro Gly Pro Ala Phe Ser Ser Leu Pro Gly Glu Ser
                325                 330                 335
Gly Glu Arg Ala Leu Ser Val Ser Arg Arg Pro Lys Arg Lys Ala Thr
```

```
            340                 345                 350
Arg Ile Ser Gly Arg Lys Phe Ala Lys Arg Lys Ile Ser Ser Ser Asn
        355                 360                 365
Thr Asp Ser Ser Asp Ser Ser Gly Trp Arg Asn Gly Val Thr Ala Thr
    370                 375                 380
Glu Gly Pro Tyr Ala Ala Ala Asn Ala Ala Ala Ala Ala Val Pro Tyr
385                 390                 395                 400
Pro Glu Ile Gly Leu Pro Ser Leu Arg Gly Leu His Leu Phe Lys Ser
                405                 410                 415
Leu Tyr Gln Arg His His Ser Ile His Lys Gly Trp Met Lys Pro Asn
            420                 425                 430
Val Lys Pro Lys His Ile Ala Phe Arg Ala His Asp Arg His Val Val
        435                 440                 445
Thr Cys Leu Gln Phe Asp Thr Asp Lys Val Leu Thr Gly Ser Asp Asp
    450                 455                 460
Thr Asn Ile Asn Val Tyr Asp Thr Lys Thr Gly Ala Leu Arg Ala Thr
465                 470                 475                 480
Leu Glu Gly His Glu Gly Gly Val Trp Ala Leu Glu Tyr His Gly Asn
                485                 490                 495
Thr Leu Val Ser Gly Ser Thr Asp Arg Ser Val Arg Val Trp Asp Ile
            500                 505                 510
Glu Arg Ala Arg Cys Thr Gln Ile Phe His Gly His Thr Ser Thr Val
        515                 520                 525
Arg Cys Leu Gln Ile Val Leu Pro Val Gln Val Gly Thr Ser Ala Asp
    530                 535                 540
Gly Thr Pro Glu Met Met Pro Lys Glu Pro Ile Ile Ile Thr Gly Ser
545                 550                 555                 560
Arg Asp Ser Ser Leu Arg Val Trp Lys Leu Pro Lys Pro Gly Asp Pro
                565                 570                 575
Val Tyr Tyr Gln Ser Gly Pro His Ala Asp Asp Thr Asp Cys Pro Tyr
            580                 585                 590
Phe Ile Arg Val Leu Thr Gly His Gln His Ser Val Phe
        595                 600                 605
```

<210> 30313
<211> 272
<212> PRT
<213> A.fumigatus

<400> 30313

```
Ile Leu Cys Leu Ser Thr His Ser Pro Gly Leu Arg Pro Trp Gln Thr
1               5                   10                  15
Thr Met Ser Lys Met Ala Glu Leu Glu Ile Ile Asp Ser Lys Gly Leu
            20                  25                  30
Pro Leu Ile Lys Gly Asp Tyr Cys Pro Ala Gly Pro Gly His Leu Arg
        35                  40                  45
Ala Pro Cys Pro Val Leu Asn Ser Leu Ala Asn His Gly Ile Ile Ala
    50                  55                  60
Arg Ser Gly Arg Asn Ile Thr Ala Ala Glu Leu Lys Ala Ala Leu Arg
65                  70                  75                  80
Tyr Leu Gly Met Gly Ile Asp Val Ile Thr Ile Leu Val Asn Gly Ala
                85                  90                  95
Phe Lys Val His Ser Asp Asp Pro Lys Lys Gly Ala Leu Leu Gly Leu
            100                 105                 110
Arg Asp Lys Asp Gln Thr Asn Glu Asp Gly Val Pro Val Leu Asn Leu
        115                 120                 125
```

```
Asp Gln Val Gly Arg Pro His Ala Val Glu His Asp Val Ser Val Thr
    130                 135                 140
Arg Gln Asp Arg Ala Leu Gly Asp Cys Met Arg Val Asn Ala Asp Leu
145                 150                 155                 160
Leu Glu Arg Phe Leu Ala Ala Pro Lys Thr Glu Arg Gly Phe Ser Ala
                165                 170                 175
Ser Ala Phe Gly Lys Tyr Arg Lys Thr Arg Tyr Asn Glu Gln Lys Arg
            180                 185                 190
Asp Asn Pro Ala Leu Glu Phe Asp Arg Phe Asn His Phe Ser Gly Cys
        195                 200                 205
Ala Glu Leu Gly Ala Val Gln Cys Ile Phe Gly Arg Gly Phe Pro Tyr
    210                 215                 220
Arg Val Pro Glu Glu Tyr Ile Arg Val Leu Phe Gly Glu Glu Arg Leu
225                 230                 235                 240
Pro Ile Glu Glu Gly Trp Lys Pro Arg Arg Leu Pro Leu Leu Leu Pro
                245                 250                 255
Glu Leu Ala Pro Val Ile Leu Arg Ile Ser His Phe Ala Ser Pro Phe
            260                 265                 270
```

<210> 30314
<211> 188
<212> PRT
<213> A.fumigatus

```
<400> 30314
Ser Leu Arg Asp Ala Arg Cys Pro Pro Thr Val Pro Ala Thr Met Phe
1               5                   10                  15
Thr Pro Val Leu Arg Arg Leu Ala Ser Met Lys Ser Arg Ile Pro Leu
            20                  25                  30
Ile Ser Gly Leu His Leu Asn Phe Ile Ser Val His Tyr Ile Tyr Ile
        35                  40                  45
Ile Ala Met Thr Leu Ile Thr Ser Ile Ile Leu Tyr Pro Gly Gly Asp
    50                  55                  60
Leu Ala Tyr Ile Asp Ile Leu Phe Phe Cys Ser Gly Ala Ala Thr Gln
65                  70                  75                  80
Ser Gly Leu Asn Thr Val Asp Phe Asn Lys Leu Lys Thr Tyr Gln Gln
                85                  90                  95
Val Ile Leu Tyr Phe Ser Ser Met Leu Thr Thr Pro Asp Phe Tyr Pro
            100                 105                 110
Leu Arg Pro Arg Leu His Pro Ala Val Leu Val Arg Glu Thr Val Ser
        115                 120                 125
Thr His Arg Ala Gly Asn Leu Ser Asp Ala Leu Tyr Gln Gly Arg Glu
    130                 135                 140
Met Pro Thr Leu Arg Ser Glu Lys Glu Pro Thr Phe Phe Trp Lys Gly
145                 150                 155                 160
Arg Glu Ala Cys Ile Gly Leu Ser Pro Lys Cys Gly Ala Gly Pro Thr
                165                 170                 175
Asn Pro Gln Glu Phe Asn Glu Lys Gly Pro Lys Ala
            180                 185
```

<210> 30315
<211> 217
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (93)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30315
Gln Trp Ser Ser Leu Ala Gln Phe Thr Ala Cys Pro Pro Lys Thr Leu
1 5 10 15
Asn Gly Arg Ile Thr Leu Asn Phe Tyr Phe Ser Arg Asp Gln Met Val
20 25 30
Leu Tyr Gln Leu Gly Asp Cys Tyr Asn Val Asp Asn Tyr Val Ser Val
35 40 45
His Tyr Val Gln Thr Leu Arg Asn Ile Thr Arg Phe Arg Cys Ser Leu
50 55 60
Ser Pro Ser Ser Ser Thr Ile Arg Arg Asn Thr Pro Phe Phe Ser Cys
65 70 75 80
Met Arg Ala Arg Gly Glu Ala Asn Ser Thr Thr Leu Xaa Ala Ser Ser
85 90 95
Thr Arg Ile Arg Ser Lys Ser Ala Thr Val Leu Ile Arg Cys Ala Ile
100 105 110
Thr Ser Ile Val Val Asp Pro Cys Pro Lys Pro Glu Arg Ile Asp Phe
115 120 125
Trp Ile Thr Leu Ser Val Ala Val Ser Thr Ala Asp Val Ala Ser Ser
130 135 140
Ser Thr Arg Ile Leu Gly Ala Val Ser Met Ala Arg Ala Arg Gln Ser
145 150 155 160
Ser Cys Arg Trp Pro Cys Glu Arg Phe Asp Pro Pro Ser Ala Thr Arg
165 170 175
Val Ser Arg Gly Asp Met Cys Val Phe Ser Cys Lys Asp Ser Gly Asp
180 185 190
Asp Asp Cys Gln Leu Gly Ala Leu Ala Ala Val Ser Leu Ser Val Glu
195 200 205
Asp Val Leu Pro Tyr Cys Ala Asn His
210 215

<210> 30316
<211> 417
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1),(377)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30316
Xaa Lys Leu Leu Ser Ser Ser Leu Ser Gly Leu Trp Thr Ile Arg Ser
1 5 10 15
Tyr Gln Arg Val Asp Ser Phe Ile Asn Arg Met His Gly Leu Ile Asp
20 25 30
Arg His Ala Arg Val Tyr Trp Asn Leu Cys Leu Leu Asn His Trp Leu
35 40 45
Asn Leu Arg Val Ser Met Ser Gly Ala Leu Phe Thr Thr Ala Ala Ala
50 55 60
Met Thr Phe Thr Leu Leu Gln Asp Leu Lys Ala Ser Ser Thr Gly Phe
65 70 75 80
Ala Ile Ser Phe Ile Ile Gln Leu Ser Ala Ala Leu Ala Met Ala Ile

```
                85                  90                  95
Arg Met Tyr Val Met Phe Asp Leu Asp Met Asn Cys Val Glu Arg Val
            100                 105                 110
Leu Glu Tyr Ser Glu Ile Lys Thr Glu Arg Tyr Asp Gly Gln Asp Ala
        115                 120                 125
Pro Ala Ala Trp Pro Ser Lys Gly Arg Leu Gln Val Glu Asn Leu Ser
    130                 135                 140
Val Ala Tyr Ala Pro Asn His Pro Leu Val Leu Arg Gly Val Ser Phe
145                 150                 155                 160
Ala Ala Glu Pro Asn Glu Arg Ile Gly Ile Val Gly Arg Thr Gly Ala
                165                 170                 175
Gly Lys Ser Ser Leu Ala Leu Ala Leu Phe Arg Phe Leu Glu Ala Gln
            180                 185                 190
Glu Gly Arg Ile Leu Ile Asp Asp Val Asp Ile Ser Gln Ile Lys Leu
        195                 200                 205
His His Leu Arg Pro Arg Met Gly Ile Ile Pro Gln Asp Pro Thr Leu
    210                 215                 220
Phe Ala Gly Thr Ile Arg Ser Asn Leu Asp Pro Phe His Glu His Asp
225                 230                 235                 240
Asp Ser Asp Leu Leu Ala Val Leu Asp Arg Val Gln Trp Leu Ala Gln
                245                 250                 255
Tyr Gly Ser Thr Ser Ser Thr Glu Arg Glu Thr Ala Ala Lys Ala Pro
            260                 265                 270
Ser Trp Gln Ser Ser Ser Pro Glu Ser Leu Gln Glu Lys Thr His Met
        275                 280                 285
Ser Pro Leu Asp Thr Arg Val Ala Glu Gly Gly Ser Asn Leu Ser Gln
    290                 295                 300
Gly Gln Arg Gln Leu Leu Cys Leu Ala Arg Ala Met Leu Thr Ala Pro
305                 310                 315                 320
Lys Ile Leu Val Leu Asp Glu Ala Thr Ser Ala Val Asp Thr Ala Thr
                325                 330                 335
Asp Lys Val Ile Gln Lys Ser Ile Arg Ser Gly Phe Gly Gln Gly Ser
            340                 345                 350
Thr Thr Met Leu Val Ile Ala His Arg Ile Ser Thr Val Ala Asp Phe
        355                 360                 365
Asp Arg Ile Leu Val Leu Asp Ala Xaa Lys Val Val Glu Phe Ala Ser
    370                 375                 380
Pro Arg Ala Leu Met Gln Leu Lys Asn Gly Val Phe Arg Arg Met Val
385                 390                 395                 400
Glu Glu Asp Gly Glu Ser Glu His Leu Lys Arg Val Ile Phe Arg Asn
                405                 410                 415
Val
```

<210> 30317
<211> 154
<212> PRT
<213> A.fumigatus

<400> 30317

```
Gly Asp Ala Thr Ile Lys Cys Phe Gly Arg Thr Gly Cys Lys Leu Arg
1               5                   10                  15
Glu Arg Ala Pro Leu Ser Leu Asn Leu Leu Arg Ser Glu Ser Ala Val
            20                  25                  30
Arg Thr Cys Phe Arg Phe Thr Ile Ile Ser Gln Arg Thr Thr Thr Thr
        35                  40                  45
```

```
Lys Thr Lys His Ser Met Ala Pro Pro Ala Val Thr Ala Leu Gln His
    50                  55                  60
Leu Ser Asn Ala Leu Ala Thr Pro Glu Gln Leu Ser Ser Ser Ser Ser
65                  70                  75                  80
Ser Ile Asp Gly Val Thr Pro Asp Leu Glu Ala Ser Leu Arg Phe Ala
                85                  90                  95
Gly Ala Gln Leu Thr His Ala Ala Gly Ile Leu Leu Arg Leu Ser Gln
            100                 105                 110
Asp Ile Ile Ala Gln Ala Ile Val Thr Tyr Thr Arg Phe Trp Ile Gly
        115                 120                 125
Pro Glu Gly Gly Ser Met Arg Ile Tyr Ser Val Lys Val Cys Pro Leu
    130                 135                 140
Arg Phe Asn Cys Cys Ile Leu Val Ala Asn
145                 150
```

<210> 30318
<211> 253
<212> PRT
<213> A.fumigatus

<400> 30318

```
Leu Ala Ile Leu Ile Tyr Leu Pro Leu Arg Ser Leu Ser Ser Lys Pro
1               5                   10                  15
Leu Val Glu Asn Ile Ser Ile Met Asp Ile Asn Ser Leu Leu Ser Pro
            20                  25                  30
Asp Ser Asn Pro Gln Ser Gly Arg Ser Thr Pro Gly Asn Gly Ser Met
        35                  40                  45
Ser Ala Asn Asn Ala Pro Ala Ala Thr Ser Arg Pro Ser Asn Lys Pro
    50                  55                  60
Leu Arg Lys Gly Arg Thr Thr Pro Ala Arg Pro Thr Met Thr Ser Ser
65                  70                  75                  80
Pro Leu Ala His His Val Tyr Ala Pro Ser His Leu Asn Asp Pro Ser
                85                  90                  95
Pro Pro Ala Thr Ser Ser Pro Ser Val Gly Pro Asn Ile Gly Gly Gly
            100                 105                 110
Asn Gly Thr Pro Pro Ser Val Asp Leu Pro Pro Ser Arg Gln Ala Ser
        115                 120                 125
Thr Pro Gly Met Asp Thr Leu Ala Asp Leu Ala Ser Met Gln His His
    130                 135                 140
Gln Pro Gln Arg Ser Asn Thr Ser Ile Leu Arg Gly Thr Glu Ser Tyr
145                 150                 155                 160
Glu Ser Gln Leu Ser Pro Ser Thr Met Tyr Pro His Val Asn Pro Ile
                165                 170                 175
Ser His Asn Thr Pro Thr Pro Arg Thr Ser Phe Asp Ile Ala Met Ser
            180                 185                 190
Glu Gly Pro Arg Glu Gly Ala Ala Arg Arg Asn Tyr Ala Asp Thr Ser
        195                 200                 205
Leu Arg Pro Asp Ala Gln Arg Met Ala Thr Glu Leu Phe Ala Gln Ile
    210                 215                 220
Gln Asp Asn Pro His Ile Tyr Glu Ala His Val Asn Phe Ile Arg Leu
225                 230                 235                 240
Leu His Glu Gly Phe Val Asn His Val Tyr Pro Pro Asn
                245                 250
```

<210> 30319
<211> 95

<212> PRT
<213> A.fumigatus

<400> 30319
Lys Lys Asp Lys Ala Arg Ile Thr Ala Leu Phe Cys Cys Asn Ala Asp
1 5 10 15
Gly Ser Glu Lys Leu Leu Pro Trp Phe Ile Asp Thr Ala Lys Asn Pro
20 25 30
Arg Ala Phe Gln Ala Ala Gly Val Asn Ile Arg Asn Leu Asn Leu Ile
35 40 45
Trp Arg Ser Asn Gln Lys Ala Trp Ile Thr Thr Leu Ile Phe Thr Asp
50 55 60
Phe Leu Arg Trp Phe Asp Lys Gln Met Ser Gly Arg Asn Val Val Leu
65 70 75 80
Leu Ile Asp Asn Phe Ser Ala His Gln Ala Thr Val Thr Glu Ile
85 90 95

<210> 30320
<211> 226
<212> PRT
<213> A.fumigatus

<400> 30320
Ser Ser Gly Tyr Pro Leu Gln Asn Thr Leu Ile Ile Trp Leu Pro Ala
1 5 10 15
Asn Ser Thr Ser Arg Tyr Gln Pro Leu Asp Gln Gly Ile Ile His Cys
20 25 30
Trp Lys Leu Tyr Trp Lys Gln Tyr Trp Ile Arg Phe Ile Leu Gln Glu
35 40 45
Phe Glu Leu Asn Tyr Asp Leu Ile Ile Leu Met Asn Ile Leu Arg Ala
50 55 60
Val Arg Trp Gly Ile Gln Ser Trp Glu Phe Glu Leu Ser Gly Gln Val
65 70 75 80
Ile Gln Asn Cys Phe Gln Lys Ala Leu Asp Ser Gln Pro Ser Tyr Gln
85 90 95
Glu Pro Val Asn Pro Ala Val Leu Asp Asp Ile Gln Asn Ala Phe Ser
100 105 110
Leu Leu Lys Leu Ser Thr Pro Ile Gln Asp Leu Ile Asp Ile Asp Thr
115 120 125
Phe Leu Asn Pro Ala Glu Glu Ala Ile Gln Asp Thr His Glu Asp Ile
130 135 140
Lys Ser Gln Ile Leu Ala Gln Tyr Gly Pro Glu Leu Asp Asp Asp Ser
145 150 155 160
Glu Glu Glu Leu Glu Ile Leu Pro Gln Ile Ser Leu Asp Gln Ala Leu
165 170 175
Glu Ala Leu Arg Thr Leu Cys Leu Tyr Glu Glu Gln Gln Ala Glu Gly
180 185 190
Ile Pro Ser Leu Ile Tyr Glu Leu Asp Lys His Glu Arg Ile Leu Trp
195 200 205
Gly Arg Lys Leu Ser Leu Gln Thr Gln Arg Asp Ile Arg Ser Tyr Phe
210 215 220
Thr Gly
225

<210> 30321
<211> 534

<212> PRT
<213> A.fumigatus

<400> 30321

```
Phe Thr Arg Ile Leu His Pro Trp Ala Cys Thr Ile Asp Pro Ser Ala
1               5                  10                  15
Thr Val Ala Asp Ala Cys Val Ser Tyr Val Thr Ile Asp Ser Leu Asn
            20                  25                  30
Asp Gln Ile Tyr Ser Leu Leu Gln Ser Ile Thr Gln Glu Thr Asp Phe
        35                  40                  45
Phe Ser Tyr Tyr Arg Leu Asn Leu Phe Asn Lys Gln Cys Pro Phe Trp
    50                  55                  60
Asp Asp Ala Asn Ser Met Cys Gly Asn Ile Ala Cys Ser Val Asn Thr
65                  70                  75                  80
Ile Glu Ser Glu Glu Asp Ile Pro Leu Thr Trp Arg Ala Glu Glu Leu
                85                  90                  95
Ser Lys Leu Glu Gly Pro Lys Ala Gly His Pro Gly Arg Lys Leu Gln
            100                 105                 110
Lys Glu Arg Pro Ser Asp Lys Pro Leu Gln Gly Glu Leu Gly Ala Asn
        115                 120                 125
Val Gly Glu Ser Cys Val Val Glu Tyr Asp Asp Glu Cys Asp Glu Arg
    130                 135                 140
Asp Tyr Cys Val Pro Glu Asp Glu Gly Ala Ser Gly Lys Gly Asp Tyr
145                 150                 155                 160
Val Ser Leu Val Asp Asn Pro Glu Arg Phe Thr Gly Tyr Ala Gly Pro
                165                 170                 175
Gly Ala His Met Val Trp Asp Thr Ile Tyr Arg Glu Asn Cys Phe Leu
            180                 185                 190
Lys Ser Pro Pro Glu Met Ala Leu Ser Pro His Pro Ser Leu Gly Gly
        195                 200                 205
Leu Gln Ala Val Asn Asp Phe Arg Asn Val Leu Gln Lys Glu Met Lys
    210                 215                 220
Arg Ser Glu Gln Leu Pro Phe Asp Asn Glu Cys Leu Glu Lys Arg Val
225                 230                 235                 240
Phe His Arg Val Ile Ser Gly Met His Ala Ser Ile Thr Thr His Leu
                245                 250                 255
Cys Trp Asp Tyr Leu Asn Lys Thr Thr Gly Gln Trp His Pro Asn Leu
            260                 265                 270
Gln Cys Phe Lys Glu Arg Leu His Asp His Pro Glu Arg Ile Ser Asn
        275                 280                 285
Leu Tyr Phe Asn Tyr Ala Leu Val Ser Arg Ala Val Ala Lys Leu Arg
    290                 295                 300
Lys His Leu Gln Asn Tyr Thr Phe Cys Ile Ser Asp Pro Leu Gln Asp
305                 310                 315                 320
Arg Glu Thr Lys Glu Lys Val Ser Gln Leu Thr Ala Ile Leu Ala Asp
                325                 330                 335
Arg Pro Gln Ile Phe Asp Glu Asn Ile Met Phe Gln Asp Pro Ser Ala
            340                 345                 350
Pro Gly Leu Lys Glu Glu Phe Arg Asn Arg Phe Arg Asn Val Ser Arg
        355                 360                 365
Leu Met Asp Cys Val Gly Cys Asp Lys Cys Arg Leu Trp Gly Lys Leu
    370                 375                 380
Gln Val Asn Gly Tyr Gly Thr Ala Leu Lys Val Leu Phe Asp Tyr Asp
385                 390                 395                 400
Glu Thr Lys Asn Gly Glu Asn Pro Pro Leu Arg Arg Thr Glu Leu Val
                405                 410                 415
```

```
Ala Leu Ile Asn Thr Leu Gly Arg Ile Ser His Ser Leu Ala Ala Val
            420                 425                 430
Arg Ser Phe His Arg Ala Met Asp Leu Gly Gln Gly Gln Thr Phe Ala
        435                 440                 445
Ile Met Ala Gly Thr Pro Met Leu Lys Gln His Pro Gly Gly Arg Lys
    450                 455                 460
Ala Lys Val Leu Tyr Lys Asp Gly Gly Ser Thr Phe Tyr Tyr Glu Asp
465                 470                 475                 480
Asp Glu Asp Asp Phe Lys Tyr Ala Thr Glu Arg Leu Pro Trp Glu Arg
                485                 490                 495
Arg Pro Tyr Lys Glu Ser Asp Thr Ala Trp Asp Ser Phe Thr Ala Glu
            500                 505                 510
Phe Glu Val Val Trp Asn Thr Phe Val Tyr Val Leu Lys Ser Trp Trp
        515                 520                 525
Asn Leu Pro Lys Thr Leu
    530

<210> 30322
<211> 374
<212> PRT
<213> A.fumigatus

<400> 30322
Leu Ala Leu Ser Leu Gln Pro Arg Gly Glu Asp Thr Leu Pro Met Asp
1               5                   10                  15
Leu Asp Ala Glu Gly Arg Arg Leu Phe Asp Phe Tyr Val Asn Glu Met
            20                  25                  30
Pro Ala Cys Ser Tyr Gly Asn His Phe Arg Ser Pro Lys Ala His Asn
        35                  40                  45
Trp Tyr Thr Ala Val Phe Val Pro Glu Gly Met Lys Gly Pro Val Ala
    50                  55                  60
Phe Gln Asn Thr Ile Leu Val His Ala Ala Asn Thr Trp Ala Trp Val
65                  70                  75                  80
Arg Asn Gln Glu Glu Thr Lys Met Thr Leu Val His Arg Asn Arg Ala
                85                  90                  95
Ile Ser Met Leu Arg Glu His Leu Ala Ala Asn Pro Gly Asp Ile Ser
            100                 105                 110
Asp Val Ala Ile Ile Ala Cys Leu Ser Ala Ala Gly Leu Glu Asp Phe
        115                 120                 125
Asp Pro Arg Pro Gly Arg Lys Gln Ile Ser Trp Ile His Met Arg Ala
    130                 135                 140
Ala Arg Glu Met Ile Arg Ala Arg Gly Gly Pro Ala Ala Phe Glu Asn
145                 150                 155                 160
Thr Arg Leu Gly Met Leu Ile Asn Trp Gln Asp Tyr Ile Leu Ser Gly
                165                 170                 175
Tyr Glu Thr His Gly Pro Ser Phe Phe Phe Glu Pro Asn Pro Pro Ile
            180                 185                 190
Gln Ser Asp Leu Thr Glu Ala Ser Leu Pro Thr Ser Ser Cys Leu Ser
        195                 200                 205
Thr Asp Phe Glu Gly Val Pro Ser Thr Ala Arg Pro Phe Ser Pro Arg
    210                 215                 220
Asp Glu Leu Gln His Gln Cys Asn Glu Phe Ile Asp Phe Leu Lys Arg
225                 230                 235                 240
Cys Glu Gln Leu Ala Leu His Gln Gln Thr His Thr Asn Pro Ala Ile
                245                 250                 255
Ala Pro Met Arg His Thr Ala Phe Gln Pro Thr Ser Leu Leu Tyr Gln
```

```
            260                 265                 270
Ile Leu Ala Ala Pro Pro Gly Val Arg Phe Thr Ala Ser Gly Asn Arg
        275                 280                 285
Lys Gln Phe Val Ala Arg Phe Val Ala Leu Ile Met Leu Asn Ala Gly
    290                 295                 300
Leu Trp Asp Tyr Arg Ala Ser Val Ala His Ser Glu Ser Phe Leu His
305                 310                 315                 320
Thr Leu Glu Gln Ala Val Leu Glu Ser Glu Val Asn Met Ser Gly Ser
                325                 330                 335
Val Glu Ala Leu Leu Gln Ile Met Leu Glu Cys Asn Asp Gly Thr Pro
            340                 345                 350
Thr Pro Ser Thr Ser Pro Asn Leu Pro Ser Ala Phe Val Leu Asp Glu
        355                 360                 365
Arg Glu Pro Ala Ala Pro
    370
```

<210> 30323
<211> 69
<212> PRT
<213> A.fumigatus

<400> 30323

```
Glu His Val Ser Gly Ser His Val Gln Asp Gly Gln Arg Cys Gly Ser
1               5                   10                  15
His Leu Leu Lys Gly Val Gln Gln Lys Ile His Glu Gln Ser Asp Lys
            20                  25                  30
Thr Arg Val Glu Tyr Phe Asp Val Asp Leu Pro Ser Asn Phe Ile Leu
        35                  40                  45
Phe His Ile Gly Thr Pro Asp Gln Val Asn Thr Gly Ile Lys Thr Gly
    50                  55                  60
Leu Lys Glu Lys Ile
65
```

<210> 30324
<211> 269
<212> PRT
<213> A.fumigatus

<400> 30324

```
Leu Arg Gly Pro Phe Gln Pro Arg Gly Glu Asp Ile Thr Arg Phe Glu
1               5                   10                  15
Asp Ala Lys Pro Lys Ser Met Lys Gln Val Leu Thr Ser Leu Val Lys
            20                  25                  30
Leu Leu Ala Gln Ser Arg Gln Glu Pro Ser Cys Gln Leu Ile Gln Val
        35                  40                  45
Gly Leu Val Asp Ala Ile Leu Pro Ser Ile Ile Leu Gly Glu Pro Arg
    50                  55                  60
Ala Pro Leu Lys Ala Phe Leu Val Ser Leu Glu Ile Ile Thr Arg Lys
65                  70                  75                  80
Asn Ala Ile Leu Pro His Glu Leu Ile Ser Met Leu Gln Val Trp Leu
                85                  90                  95
Ser Lys Asn Ser Glu Lys Trp Ile Pro Ile Leu Gln Glu Asp Cys Lys
            100                 105                 110
Ala Leu Ser Met Asp Val Gly Val Leu Leu Leu Ser Asp Glu Asp Ser
        115                 120                 125
Cys Asn Thr Lys Arg Val Glu Ser Arg Gly Leu Ala Val Gln Ile Leu
```

```
    130                 135                 140
Leu Leu Gly Leu Leu Asn Gln Ala Lys Asn Pro Glu Leu Ala Ser Ser
145                 150                 155                 160
Ala Gly Asp Thr Ile Ala Ala Phe Phe Gln Lys Leu Lys Ser Asp Leu
                165                 170                 175
Gly Leu Ala Glu Asp Asn Arg Ala Leu Leu Ser Val Trp Ile Pro Pro
            180                 185                 190
Val Arg Tyr Met Val Leu Gln Asn Leu Asp Asn Leu Glu Pro Met Ser
        195                 200                 205
Asn Tyr Val Leu Gln Pro Leu Phe His Asn Asp Pro Ser Gly Phe Arg
    210                 215                 220
Ser Phe Leu Asp Ser Leu Pro Leu Lys Asn Val Leu Ala Gly Asp Met
225                 230                 235                 240
Ala Asp Ala Ala Leu Pro Glu Leu Thr Val Leu Phe Ala Ser Leu Gln
                245                 250                 255
Val Ala Lys Lys Ala Gly Leu Val Asp Glu Asp Cys Glu
            260                 265
```

<210> 30325
<211> 319
<212> PRT
<213> A.fumigatus

<400> 30325

```
Ile Arg Leu Leu Arg Thr Asn Cys Ser Leu Asp Gly Pro Ser Lys Gln
1               5                   10                  15
Gly Thr Gly Met Lys Leu Ser Leu Pro Gly Glu Ile Ile Gly Gln Phe
            20                  25                  30
Leu Phe His Arg Glu Phe Ser Ile Arg Ile Ala Ala Leu Ser Leu Leu
        35                  40                  45
Ile Ala Ala Pro Ala Thr Thr Lys Pro Leu Ser Ser Thr Ala Ile Arg
    50                  55                  60
Ala Ile Leu Arg Gly Leu Pro Ser Met His Ala Glu Ser Asp Ser Tyr
65                  70                  75                  80
Ser Arg Gly Glu Ile Ile Ser Leu Leu Arg Lys Leu Ile Val Arg Leu
                85                  90                  95
Lys Gly Gly Ile Leu Glu Asn Gln Asp Gly Pro Val Gln Glu Glu Leu
            100                 105                 110
Ser Thr Asn Lys Thr Gln Gln Ala Lys Ser Gly Arg Ser Asp Ser Glu
        115                 120                 125
Thr Arg Ala Cys Val Ser Thr Tyr Ile Gly Phe Leu Lys Thr Asp Met
    130                 135                 140
Arg Pro Thr Ala Ser Tyr Pro Arg His Ile Met Ala Leu Lys Thr Leu
145                 150                 155                 160
Asn Leu Phe Leu Gln Ser Gly Leu Asp Pro Arg Val Asn Leu Val Arg
                165                 170                 175
Arg Ala Asn Met Glu Glu Asp Lys Val Arg Trp Lys Val Asn Ile Glu
            180                 185                 190
Val Phe Asp Pro Ser Leu Ile Arg Leu Leu Val Asp Leu Leu Leu Asp
        195                 200                 205
Pro Phe Glu Glu Val Arg Ala Thr Ser Leu Thr Ile Leu Asn Met Ala
    210                 215                 220
Pro Arg Asp Met Leu Leu Gly Gly Leu Leu Gln Ser Ala Asp Arg Ser
225                 230                 235                 240
Ser Ala Met Pro Leu Arg Leu Ile Asp Ala Leu Thr Lys Ala Glu Gln
                245                 250                 255
```

```
Leu Ala Ser Asn Thr Ser Arg Ala Asp His Ala Asp Thr Val Ala Arg
            260                 265                 270
Leu Tyr His Ile Ile Phe Tyr Ala Thr Ala Glu Thr His Ser Gly Gly
        275                 280                 285
Gly Ser Gln Trp Trp Glu Thr Lys Lys Gly Val Val Asp Leu Leu Leu
    290                 295                 300
Thr Lys Leu Glu Gly Lys Ser Ser Pro Arg Gly Gly Arg Thr Ala
305                 310                 315
```

<210> 30326
<211> 82
<212> PRT
<213> A.fumigatus

<400> 30326

```
Val Arg His Gln Ala Arg Tyr Gly Leu Gln Ser Ala Ser Gly Ser Gly
1               5                   10                  15
Ser Ala Gly Pro Asn Ala Met Leu Phe Leu Ala Gly Asn Thr Gln Pro
            20                  25                  30
Trp Leu Asp Trp Leu Gln Gln Leu Ile Ser Gly His Pro Thr Pro Ile
        35                  40                  45
Asp Leu Lys Gln Ile Thr Thr Cys Gln Lys Lys Tyr Pro Asp Glu Ala
    50                  55                  60
Arg Ala Val Lys Val Gly Val Asn Arg Ala Val Asn Pro Trp Thr Arg
65                  70                  75                  80
Pro Ala
```

<210> 30327
<211> 113
<212> PRT
<213> A.fumigatus

<400> 30327

```
Lys Ile Ser Cys Phe Ser Ser Asn Pro Ile Pro Ser Val Pro Thr Phe
1               5                   10                  15
Ala Leu Phe Pro His Phe Gln Gly Glu Leu Tyr Phe Gly Leu Val Met
            20                  25                  30
Val Ile Arg Val Tyr His Pro Pro Leu Glu Ser Leu Ser Leu Ser Leu
        35                  40                  45
Leu Pro Leu Val Leu Phe His Pro Pro Ala Phe Phe Val Ser Gln Val
    50                  55                  60
Pro Ser Ala Leu Asn Ile Pro Tyr Ser Asn Leu Ser Leu Leu Val Leu
65                  70                  75                  80
Leu Leu Ile Leu Tyr Ser Leu Thr Ser Pro Val Val Lys Ser Phe Leu
                85                  90                  95
Leu Val Ser Ser Arg Leu Tyr Phe Leu Leu Leu Leu Ser His Pro Asp
            100                 105                 110
Phe
```

<210> 30328
<211> 191
<212> PRT
<213> A.fumigatus

<400> 30328
Ser Asp Pro Phe Leu Ile Ala Ser His Gln Ala His Pro Pro Thr Met
1 5 10 15
Ser Asp Pro Asn Thr Thr Ala Val Arg Pro Val Pro Arg Val Gly Phe
20 25 30
Ala Thr Ile Ile Leu Gly Leu Ile Val Leu Gly Ile Leu Arg Trp Ala
35 40 45
Tyr Ala Cys Tyr Lys Gly Asn Gln Lys Tyr Lys Leu Pro Ala Arg Val
50 55 60
Pro Gly Ile Pro Ile Leu Gly Asn Ser Leu Gln Val Pro Ala Val Gln
65 70 75 80
Gln Gly Pro Trp Ala Lys Asp Leu Ala Ala Lys Tyr Gly Glu Met Tyr
85 90 95
Val Gly Val Pro Phe Pro Ser Leu Pro Ser Arg Glu Asp Val Glu Leu
100 105 110
Lys His Lys Arg Asn Arg Phe Thr Cys Gln Phe Gly Gly Ser Thr Trp
115 120 125
Val Phe Leu Asn Ser Ser Arg Val Val Lys Asp Leu Leu Glu Lys Arg
130 135 140
Ala Ala Ile Tyr Asn Ser Arg Pro Pro Phe Pro Met Thr Gln Asp Asn
145 150 155 160
Ile Ser Arg Gly Gly Arg Ile Val Leu Met Pro Tyr Gly Glu Arg Trp
165 170 175
Arg Leu Val Arg Arg Val Met His Gln Ile Leu Ser Val Thr Asn
180 185 190

<210> 30329
<211> 283
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (280)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30329
Gly Leu Gln Ala Arg Gly Arg Gln Thr Gly Thr Thr Asn Pro Arg Arg
1 5 10 15
Tyr Ala Ala Lys Met Leu Arg Gly Glu Phe Leu Ala Ser Lys Glu Ile
20 25 30
Thr Gln Met Asp Glu Val Thr Lys Leu Phe Val Phe Gly Ser Leu Met
35 40 45
Glu Ala Gly Ser Asp Thr Ser Arg Val Thr Leu Gly Gln Ile Ile Ala
50 55 60
Gly Ala Ile Thr Tyr Pro Asp Trp Val Thr Arg Ala Arg Glu Gln Leu
65 70 75 80
Asp Arg Val Cys Gly Ala His Ala Glu Arg Leu Pro Gly Trp Asp Asp
85 90 95
Arg Pro Arg Leu Pro Tyr Ile Thr Ala Val Val Lys Glu Gly Phe Arg
100 105 110
Trp Arg Pro Asn Ile Ala Glu Ile Gly Ala Pro Thr Val Leu Ile Lys
115 120 125
Asp Asp Glu Tyr Gln Gly Ser Arg Phe Pro Lys Gly Thr Val Phe Thr
130 135 140
Trp Asn Ala Trp Ala Ile Ala Leu Ser Pro Asp Glu Tyr Glu Gln Pro

```
145                 150                 155                 160
Gln Arg Phe Trp Pro Asp Arg Phe Leu Asn Glu Asp Leu Glu Asn Ala
                165                 170                 175
Leu Lys Gly His Gly Ala Phe Gly Pro Gly Met Val Leu Pro Asn His
            180                 185                 190
Cys Arg Lys Gln Leu His Phe Pro Val Asn Gln Met Thr Gly Arg Arg
        195                 200                 205
Val Cys Ala Gly Trp Lys Val Arg Lys Thr Asn Val Trp Ile Ala Ile
    210                 215                 220
Ala Arg Leu Leu Tyr Cys Phe Asp Phe His Pro Val Pro Gly Gln Pro
225                 230                 235                 240
Ile Asp Thr Met Arg Ile Pro Gln Leu Ala Gly Asn Ala Thr Ser Phe
                245                 250                 255
Ala Ala Arg Val Ser Val Pro Ser Pro Ala His Ala Glu Leu Ile Arg
            260                 265                 270
Arg Lys Cys Ala Gln Ala Val Xaa Thr His Tyr
        275                 280

<210> 30330
<211> 541
<212> PRT
<213> A.fumigatus

<400> 30330
Asn Arg Phe Ser Pro Ile Thr Val Ala Ser Gly Leu Thr Leu Gly Leu
1               5                   10                  15
Arg Ser Ile Gly Asn Gly Pro Ser Ala Met Ile Leu Ser Phe Ile Leu
            20                  25                  30
His Gly His Leu Pro Tyr Tyr Ser Ile Asn Arg Pro His Pro Asp Pro
        35                  40                  45
Leu Leu His Ala Lys Leu Lys Asp Asn Pro Asp Leu Leu Asp Ala Asp
    50                  55                  60
Val Ala Ala Leu Thr Glu His Phe Gln Ala Ser Arg Leu Ser Tyr Ser
65                  70                  75                  80
Thr Gln Ala Leu Pro Val Asn Val Leu Leu Asp Thr Leu Val Arg Pro
                85                  90                  95
Ser Ile Asp Val Asp Val Gly Asp Gly Glu Thr Arg Val Glu Trp Arg
            100                 105                 110
Tyr Val Pro Glu Lys Ala Val Pro His Leu Val Phe Gly Asn Ala Pro
        115                 120                 125
Lys Ala Gly Gly Gln Trp Asn Asp Asn Leu Val Phe Ala Ser Trp Asp
    130                 135                 140
Ile Gln Thr Leu Ser Tyr Ala Ser Met Leu Ser Leu Pro Gly Tyr Ser
145                 150                 155                 160
Phe Ala Glu His Tyr Arg Lys Val Asn Gly Lys Asp Leu Pro Ala Phe
                165                 170                 175
Thr Arg Pro Thr Arg Arg Glu Ile Met Asp Tyr Phe Ser Ala Tyr Pro
            180                 185                 190
Glu Ala Val Gly Ile Asp Asp Ser Phe His Asn Asn Gln Ser Leu Ser
        195                 200                 205
Gly Val Thr Arg Thr Ala Asn Gly Phe Phe Ile Ser Ser His Asn Ile
    210                 215                 220
His Cys Lys His Leu Val Leu Ala Ser Gly Ile Phe Ser Glu Val Leu
225                 230                 235                 240
Gln Pro Leu Pro Met Leu Gln Pro Leu Arg Phe Leu Gln Pro Thr Pro
                245                 250                 255
```

```
Glu Ile Pro Leu Leu Val Ile Gly Ser Gly Phe Ser Ala Ala Asp Ile
            260                 265                 270
Ile Ile Ser Ala Pro Thr His Gln Lys Ile Leu His Ile Phe Lys Trp
        275                 280                 285
Asp Pro Glu Gly His Pro Ser Pro Leu Arg Ser Cys His Gln His Ala
    290                 295                 300
Tyr Pro Glu Tyr Ala Gly Val Tyr Arg Leu Met Lys Arg Ala Ala Leu
305                 310                 315                 320
Ala Ala Glu Pro Ala Ala Ala Lys Arg Leu Gly Lys Pro Arg Arg Thr
                325                 330                 335
Thr Ser Ser Pro Phe Leu Glu Ser Arg Ala Trp Asp Thr Val Tyr Glu
            340                 345                 350
Gly Leu Pro Asn Ala Glu Val Ile Ala Val Asn Met Gln Ser Glu Ala
        355                 360                 365
Ala Val Val Thr Phe Arg Leu Pro Asp Gly Ser Thr Val Glu Arg Thr
    370                 375                 380
Val Arg Gly Leu Val Tyr Ala Thr Gly Arg Arg Gly Ser Leu Gly Tyr
385                 390                 395                 400
Leu Asp Arg Pro Leu Leu Ser Asp Val Leu Gly Cys Pro Asp Gly Ala
                405                 410                 415
Glu Pro Ser Pro Ile Ile Ser Gly Glu Thr Leu Arg Ala Lys Ala Leu
            420                 425                 430
Glu Asp Leu Glu Val Ala Asp Asp Val Phe Ile Ile Gly Ser Leu Thr
        435                 440                 445
Gly Asp Ser Leu Ile Arg Phe Ala Tyr Gly Ser Cys Val Gln Thr Ala
    450                 455                 460
Gly Arg Leu Ile Arg Ala His Thr Gly Asp Asp Lys Ser Glu Cys Lys
465                 470                 475                 480
Thr Pro Thr Ser Ser Arg Pro Gln Ser Ser Ser Leu Arg Val Met Asn
                485                 490                 495
Gly Met Glu Gly His Glu Ile Tyr His Asn Gly Asp Tyr Tyr Gln Glu
            500                 505                 510
Leu Glu Lys Ile Asp Ser Glu Ala Thr Thr Arg Pro Pro Ser Ser Leu
        515                 520                 525
Glu Ser Leu Trp Ser Arg Met Met Arg Phe Trp Arg Ser
    530                 535                 540
```

<210> 30331
<211> 260
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (251),(256)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30331

```
Leu Thr Ser Val Gln Phe Ile Ala Val Phe Leu Gly Tyr Val Ala Val
1               5                   10                  15
Ser Gly Val Ala Ile His Arg Tyr Ala Lys Tyr Lys Gly Leu Asn Gly
            20                  25                  30
Asp Gly Ile Tyr Asp Ser Ser Asn Ser Phe Ser Leu Asp Thr Asn Thr
        35                  40                  45
Leu Ile Leu Phe Ile Phe Val Leu Cys Val Ala Leu Ala Phe Ser Tyr
    50                  55                  60
```

```
Ala Tyr Phe Leu Gly Ala Arg Tyr Phe Ser Lys Leu Phe Ile Trp Val
65                  70                  75                  80
Thr Gly Ile Leu Asn Ile Val Phe Ala Leu Ala Thr Gly Ile Tyr Tyr
                85                  90                  95
Ile Ala Arg Lys Gln Tyr Gly Gly Gly Ile Val Phe Leu Leu Phe Gly
            100                 105                 110
Val Phe Ala Ile Ile Cys Phe Ile Ser Trp Ile Pro Arg Ile Pro Phe
        115                 120                 125
Ser Ala Phe Met Leu Gln Thr Ser Ile Asp Val Ser Arg Lys Tyr Gly
    130                 135                 140
His Met Phe Ile Val Ser Thr Ile Gly Gly Leu Val Ala Val Ala Phe
145                 150                 155                 160
Ala Ala Trp Phe Ser Val Thr Leu Val Ser Ile Tyr Val Ala Tyr Glu
                165                 170                 175
Pro Ser Ser Ser Gly Ser Asn Pro Ser Cys Ser Asp Gly Gly Cys Ser
            180                 185                 190
Arg Ala Arg Val Ile Gly Leu Val Val Tyr Val Thr Phe Ala Met Tyr
        195                 200                 205
Trp Phe Ser Glu Trp Leu Lys Asn Thr Ile His Thr Thr Ile Ala Gly
    210                 215                 220
Val Tyr Gly Ser Trp Tyr Phe Trp Ser Gln Ser Pro Ile Gly Met Pro
225                 230                 235                 240
Arg Gly Ser Thr Arg Val His Ser Arg Ala Xaa Phe Thr Gln Ala Xaa
                245                 250                 255
Asp Thr Tyr His
            260
```

<210> 30332
<211> 125
<212> PRT
<213> A.fumigatus

<400> 30332

```
Ile Asp Leu Leu Ser Phe Leu Tyr Phe His Arg Ser Pro Leu Leu Pro
1               5                   10                  15
Ser Val Thr Thr Trp Leu Phe Val Pro Leu Gln Arg Tyr Thr Ile Met
            20                  25                  30
Ser Gly Gln Leu Arg Ser Tyr Tyr Asn Pro Ser Gln Ser Tyr Gly Asp
        35                  40                  45
Phe Gln Pro Gly Met Gln Asn Pro Gln Gln Gln Pro Asp Tyr Tyr Asn
    50                  55                  60
Asn Asn Val Ser Asn His Gly Tyr Asp Pro Asn Phe Gln Arg Gly Pro
65                  70                  75                  80
Glu Pro Lys Pro Pro Thr Glu Pro Pro Pro Thr Tyr Asn Gln Ala Val
                85                  90                  95
Tyr Gly Phe Asp Asp Ala Phe Lys Ile Glu Arg Pro Lys Tyr His Asp
            100                 105                 110
Ile Trp Ala Gly Leu Leu Val Ser Gly Cys Thr Leu Ser
        115                 120                 125
```

<210> 30333
<211> 77
<212> PRT
<213> A.fumigatus

<400> 30333

```
Leu His Gln Ala Leu Glu Val Ser Phe Thr Val Val Gly Ala Ala Met
1               5                  10                  15
Leu Arg Met Tyr Leu Asp Asp Glu Ile Gly Met Lys Ala Leu Tyr Pro
            20                  25                  30
Arg Pro Glu Thr Ser Gln Thr Asn Leu Leu Pro Ala Ile Leu Lys Pro
        35                  40                  45
Cys Asn Thr Cys Asp Met Leu Thr Ala Val Leu Glu Arg Gly Thr Asp
    50                  55                  60
Ser Leu Val Arg Tyr Val Phe Asp Ala Gly Phe Leu Tyr
65                  70                  75
```

<210> 30334
<211> 572
<212> PRT
<213> A.fumigatus

<400> 30334

```
Ala Ala Ala Asn Pro Arg Ser Asp Trp Gly Leu Asp Ser Arg Arg Val
1               5                  10                  15
Asp Ser Val Asp Phe Leu Phe Glu Leu Val Pro Phe Gln Ile Phe Phe
            20                  25                  30
Pro Ser Ile Arg Ile Ile Arg Phe Val Ser His Ile Leu Tyr Glu Lys
        35                  40                  45
Gly Trp Glu Ala Gln Ser Thr Leu Ala Val Ala Lys Thr Asp Pro Phe
    50                  55                  60
Ser Pro Ile Tyr Leu Gly Trp Arg Pro Val Gln Ser Ala Pro Gly Ser
65                  70                  75                  80
Asp Val Cys Glu Pro Gln Ala Ala Leu His Tyr Pro Pro Ser Val Ser
                85                  90                  95
Gly Ser Ala Pro Glu Cys Thr Cys Pro Phe Arg Gln Gln Pro Glu Gln
            100                 105                 110
Ile Gly Glu Gly Thr Pro Asn Asp Thr Leu Leu Asp Trp Leu Gln Glu
        115                 120                 125
Ala Val Gly Ala Phe Gln Thr Ser Ser His Ala Ser Thr Cys Ser Glu
    130                 135                 140
Ser Gly Asp Leu Pro Ser Ser Ile Val Glu Glu Lys Pro Leu Gln Pro
145                 150                 155                 160
Thr Thr Asn Arg Phe His Ile Met Met Ser Asn Gln Pro Thr Phe Ser
                165                 170                 175
Gly Lys Pro Gly Glu Asp Val Asp Leu Tyr Ile Asp Gln Cys Arg Phe
            180                 185                 190
Met Trp Ala Gly Val Ser Leu Asp Pro Glu Glu Lys Lys Gln Ala Ile
        195                 200                 205
Ala Thr Thr Leu Phe Val Gly Leu Arg Glu Ala Ala Leu Arg Phe Gly
    210                 215                 220
Arg Thr Leu Pro Lys Thr Glu Arg Lys Asp Trp Glu Lys Leu Ala Gln
225                 230                 235                 240
His Leu Arg Ala Arg Phe Pro Glu Gln Glu Pro Ser Asp Arg Ile Gln
                245                 250                 255
Asp Ala Ile Met Arg Leu Ser Glu Leu Arg Gln Gly Thr Lys Ser Leu
            260                 265                 270
Arg Gly Tyr Ile Asp Glu Val Gln Glu Leu Thr Met Ser Ile Pro Asp
        275                 280                 285
Asp Trp Gly Gln Ser Val Gly Ser Met Phe Ala Arg Gly Leu Ser Asp
    290                 295                 300
Pro Met Thr Arg Lys Val Leu Asn Ala Tyr Ile Gln Ala Gln Lys Ala
```

```
305                 310                 315                 320
Met Ser Lys Thr Val Lys Ile Glu Glu Leu Ile Arg Met Ala Arg Ala
                325                 330                 335
Cys Glu Asp Glu Ala Thr Val Val Glu Glu Val Thr Ala Ser Arg Ser
            340                 345                 350
Arg Asp Glu Met Phe Ala Asp Ala Leu Asn Asn Gln Ser Gln Leu Ile
        355                 360                 365
Gly Thr Leu Ala Glu Gln Leu Ser Arg Ile Asn Leu Ser Gln Gly Gln
    370                 375                 380
Ser Gln Gln Ser Ser Ile Ser Arg Gln Gln Gln Gln Trp Gln Asn Ala
385                 390                 395                 400
Gly Gln Arg Val Cys Phe Lys Cys Gly Gln Thr Gly His Ile Ala Pro
                405                 410                 415
Ile Cys Thr Asn Pro Pro Leu Pro Ala Glu Glu Gln Gln Arg Ile Arg
            420                 425                 430
Gln Glu Thr Met Gly Gln Gly Gln Gly Gln Leu Gln Ser Gln Gly Arg
        435                 440                 445
Tyr Arg Gln Pro Gln Thr Asn Arg Ser Ala Ser Glu Thr Asn Arg Pro
    450                 455                 460
Ile Gln Pro Gln Gly Gly Ala Phe Gly Leu Glu Ser Arg Arg Arg Val
465                 470                 475                 480
Asp Pro Thr Thr Ser Thr Thr Ser Ala Ala Ile Thr Gly Val Glu Ser
                485                 490                 495
Asn Asn Ile Ala Arg Val Arg Phe Val Asp Ser Glu Ser Glu Glu Val
            500                 505                 510
Ala Glu Trp Asn Ala Ile Asp Arg Val Asn Ala Val Leu Leu Ser Ser
        515                 520                 525
Leu Ser Pro Ile Asp Val His Ile Pro Gln Ser Ser Asn Ala Leu Val
    530                 535                 540
Glu Leu Gln Arg Val Tyr Ala Ala Gly Asp Glu Asp Ala Gly Gly Lys
545                 550                 555                 560
Arg Ala Lys Val Asp Thr Thr Ser Asp Ser Gln Leu
                565                 570
```

<210> 30335
<211> 83
<212> PRT
<213> A.fumigatus

```
<400> 30335
Arg Ile Ala Arg Leu Arg Asp Val Asp Ile Tyr Trp Gly Gln Gly Ala
1               5                   10                  15
Glu Lys His Cys Val Asn Ser Ile Asp Gly Ile Pro Phe Ser His Phe
            20                  25                  30
Phe Thr Phe Ala Val His Lys Pro Asp Thr Cys Asn Val Ile Arg Phe
        35                  40                  45
Tyr Ser Arg Asn Ser Cys Arg Ser Cys Ala Gly Gly Trp Val His Ser
    50                  55                  60
Thr Pro Gly Leu Gln Ser Lys Cys Ser Pro Leu Arg Leu Asn Trp Ser
65                  70                  75                  80
Ile Arg Leu
```

<210> 30336
<211> 162
<212> PRT

<213> A.fumigatus

<400> 30336

```
Cys Thr Gln Cys Phe Leu Ser Arg Val Gln Arg Tyr Ser Trp Arg Glu
1               5                  10                  15
Asp Cys Ile Arg Val Ser Leu Arg Thr Thr Leu Arg Ser Ile Gln Phe
            20                  25                  30
Thr Asp Val Cys Met His Val Ser Ser Ile Glu Leu Ile Ser Leu Phe
        35                  40                  45
Ser Phe Leu Ser Cys Leu Pro Thr Ser Ser Ile His Ile Val Ser Leu
    50                  55                  60
Lys Met Glu Ser Glu Cys Gln Cys Glu Gly Gly Asn Lys Asp Phe Pro
65                  70                  75                  80
Ala Gly Ser Val Met Arg Lys Phe Glu Asn Ala Ile Phe Pro Ile Ala
                85                  90                  95
Gly Ser Leu Tyr Arg Met Lys Lys Ile Leu Trp Glu Arg Tyr Asn Thr
            100                 105                 110
Asp Tyr His Gln Arg Arg Ala Val Phe Glu Ala Glu Glu Cys Lys Thr
        115                 120                 125
Lys Asp Pro Val Val Val Lys Phe Phe Leu Glu Cys Val Ile Cys Ser
    130                 135                 140
Leu Pro Tyr Ala Ser Leu Leu Ala Asn Phe Val Asp Ile Gly Gln Thr
145                 150                 155                 160
His Ser
```

<210> 30337
<211> 74
<212> PRT
<213> A.fumigatus

<400> 30337

```
Pro Lys Leu His Pro Val Cys Leu Ser Ser Asn Thr Tyr Ser Ser Gln
1               5                  10                  15
Ser Lys Tyr Asn Ile His Thr Pro Leu Thr Leu Pro Ser Asp Ser Ala
            20                  25                  30
Ile Pro Ser Ser Asn Thr Ser Ser Leu Ala Cys Cys Ser Gly Asn Phe
        35                  40                  45
Thr Ala Ser His Ser Cys Arg Cys Ser Ser Val Lys Tyr Pro Leu Thr
    50                  55                  60
Thr Ser Ser Arg Ser Asn Gly Pro Pro Ile
65                  70
```

<210> 30338
<211> 91
<212> PRT
<213> A.fumigatus

<400> 30338

```
Leu Arg Arg His Arg Ala Asp Pro Phe Met Arg Glu Glu Glu Arg Gly
1               5                  10                  15
Lys Arg Thr Met Lys Asp Asp Ala Ala Asn Leu Phe His Asn Glu Cys
            20                  25                  30
Glu Ile Trp Arg Thr Leu Ser Asp Thr Gly Tyr Thr Pro Lys Tyr Tyr
        35                  40                  45
Gly Lys Arg Glu Met His Gln Asp Leu Ala Phe Glu Asn Pro Gly Ala
```

```
    50                  55                  60
Tyr Leu Trp Ile Leu Ala Phe Gly Thr Leu Ser Gly Pro Leu Ile Leu
65                  70                  75                  80
Ala Asp Thr Pro Ser Ile Trp Trp Lys Gly Gly
                85                  90
```

<210> 30339
<211> 66
<212> PRT
<213> A.fumigatus

<400> 30339

```
Lys Ala Glu Asp Ala Ala Gly Asp Glu Thr Ala Val Ser Thr Thr Glu
1               5                   10                  15
Val Ser Ala Lys Asn Gly Val Asp Ser Ser Ala Leu Ser Asp Ala Val
            20                  25                  30
Gly Gly Glu Ser Ser Ala Pro Thr Asn Thr Ala Asn Pro Asp Gln Ser
        35                  40                  45
Asn Asn Asn Asp Ser Ile Val Pro Leu Thr Asn Gly Val Ala Gly Asp
    50                  55                  60
Ala Ser
65
```

<210> 30340
<211> 390
<212> PRT
<213> A.fumigatus

<400> 30340

```
Cys Leu Phe Phe Ile Ala Ile His Thr Ile Lys Glu Ile Tyr Arg Ser
1               5                   10                  15
Ser Ser Ile Ala His Ala Asp Val Asn Pro Pro Ala Gln Ser Tyr Phe
            20                  25                  30
Val Arg Trp Val Asn Val Lys Pro Asp His Thr Ile Ser Trp Ser Ile
        35                  40                  45
Gln Pro His Lys Lys Ser Leu Asn Phe Gly Ile Phe Lys His Pro Gly
    50                  55                  60
His Ser Gly Val Leu Ser Ser Thr Asn His Pro Ala Gly Asp Tyr His
65                  70                  75                  80
Ser Thr Asp Ser Ser Glu Asn Leu Pro Ser Ala Ala Ala Ala Ala Gly
                85                  90                  95
Ser Arg Thr Ser Val Ile Glu Lys Leu Thr Ser Ile Gly Leu Lys Gln
            100                 105                 110
Val Arg Trp Ile Gly Lys Cys Glu Ala Asp Lys Ile Val Lys Gly Thr
        115                 120                 125
Tyr Asp Val Pro His Asn Glu Gly Gly Asn Tyr Ala Leu Val Phe Asp
    130                 135                 140
Asn Thr Phe Ser Lys Gln Ile Ser Lys Thr Val Thr Leu Val Leu Leu
145                 150                 155                 160
Thr Tyr Pro Thr His Ser Gly Pro Thr Asn His Ser Thr Thr Gln Leu
                165                 170                 175
Ala Arg Glu Val Glu Phe Ala Glu Asn Ala Asn Ala Thr Ala Arg Asn
            180                 185                 190
Arg Gly Asn Ser Ile Leu Ser Lys Ala Pro Ser Gln Ala Val Ser Thr
        195                 200                 205
Thr Ser Gly Thr Thr His Thr Gly Leu Leu His Lys Arg Arg Arg Lys
```

```
    210                 215                 220
Arg His Gln Gly Trp Ala Arg Arg Tyr Phe Ser Leu Asp Phe Thr Ser
225                 230                 235                 240
Ser Thr Leu Ser Tyr Tyr His Asp Arg Asn Ser Ser Ala Leu Arg Gly
                245                 250                 255
Ser Ile Pro Leu Ser Leu Ala Ala Val Ala Cys Asn Glu Lys Ser Arg
            260                 265                 270
Glu Ile Ser Ile Asp Ser Gly Thr Glu Val Trp His Leu Arg Ala Ser
        275                 280                 285
Asn Asp Gln Asp Phe Ile Ala Trp Lys Arg Ala Leu Glu Lys Ala Ser
    290                 295                 300
Ser Lys Ala Ser Ala Glu Asp Ser His Ala Pro Glu Val Leu Leu Arg
305                 310                 315                 320
Val Pro Ser Gln Arg Phe Leu Thr Asn Ala Ala Glu Glu Arg Glu Trp
                325                 330                 335
Met Gln Val Glu His Leu Val Ser Lys Val Ser Gly Ser Arg Asp Ala
            340                 345                 350
Val Arg Arg Leu Ala Arg Asp Thr Asp Pro Lys Tyr Leu Asn Asn Ser
        355                 360                 365
Ser Ala Leu Thr Pro Tyr Glu Arg Pro Arg Gly Ser Leu Pro Gln Ser
    370                 375                 380
Pro Pro Gly Asn Gln Leu
385                 390
```

<210> 30341
<211> 70
<212> PRT
<213> A.fumigatus

<400> 30341

```
Ala Ile Tyr Asn Asn Ile Thr Arg Tyr Tyr Ile Thr Lys Gln Tyr Glu
1               5                   10                  15
Ile Leu Asn Leu Thr Ile Phe Arg Phe Ile Lys Asp Lys Glu Arg Gly
            20                  25                  30
Leu Thr Arg Leu Lys Leu Asp Lys Tyr Thr Tyr Ser Ser Pro Arg Leu
        35                  40                  45
Ile Val Cys Leu Gly Val Phe Arg Ile Leu Thr Ile Leu Thr Asp Phe
    50                  55                  60
Thr Lys Leu Gln Asp Tyr
65                  70
```

<210> 30342
<211> 198
<212> PRT
<213> A.fumigatus

<400> 30342

```
Glu Lys Ala Phe His Arg Pro Ala Phe Leu Leu Leu Val Ser His His
1               5                   10                  15
Gln Ser Thr Thr Ala Thr Asn Pro Leu Pro Arg Met Cys Ala Leu Val
            20                  25                  30
Thr Tyr Tyr Pro Arg Glu Pro Leu Asp Glu Thr Cys Glu Lys Glu Thr
        35                  40                  45
Asn Pro Pro Ala Cys Leu Leu Pro Pro Ser Thr Thr Ser Thr Ser Thr
    50                  55                  60
Ser Ser Cys Tyr Ala Ser Leu Ser Leu Leu Pro Ile Gln Ile His Leu
```

```
65                  70                  75                  80
Ala Gly His Gln Asn Pro Ser Phe Trp Asp Asp Tyr Ser Ala His Pro
                85                  90                  95
Ser Arg Thr Arg His Arg Cys His Leu Phe Phe Tyr Pro Glu Ser Glu
            100                 105                 110
Pro Gly Phe Ala Glu His Pro Ser Ser Thr Tyr Asp Trp Leu Ser Ser
        115                 120                 125
Arg Leu Ala Trp Ser Arg Ala Met Asp Cys Leu Lys Arg Gly Phe Gly
    130                 135                 140
Trp Pro Gly Gly Ser Trp Lys Thr Pro Asp Val Glu Thr Ile Trp Glu
145                 150                 155                 160
Glu Tyr Trp Arg Thr Leu Leu Phe Asn Ala Gly Arg His Ser Asp Pro
                165                 170                 175
Asp Gly Tyr Ala Ala Arg Phe Met Lys Met Met Ile Gly Ser Gly Asp
            180                 185                 190
Pro Ser Ser Leu Phe Ser
        195
```

<210> 30343
<211> 598
<212> PRT
<213> A.fumigatus

<400> 30343

```
Tyr Leu His Asp Gly Leu Asp Ile His Met Leu Ala Gly Cys Cys Ser
1               5                   10                  15
Ser Ala Phe Gln Pro His Ile His Ile Lys Met Ser Arg Thr Val Glu
            20                  25                  30
Leu Gly Ser Gln Pro Thr Ala Met Ala Gly Cys Pro Ser Glu Gln Gln
        35                  40                  45
Arg Leu Val Ser Glu Thr Asn Gln Ala Leu Gln Leu Ala Thr Gln Tyr
    50                  55                  60
Ser Lys Val Gln Arg Arg Pro Gly Gly Asn Trp Arg Gly Gln Thr Gly
65                  70                  75                  80
Ile Asn Ser Ile Ala Thr Thr Ala Glu His Ile Phe Met His Gln Ala
                85                  90                  95
Leu Gly Ser Asn Leu Asp Thr Asp Arg Asp Ala Phe Ile Ser Trp Phe
            100                 105                 110
Tyr Ser Val Gln Asn Ser Asp Gly Ser Trp Gly Ile Ser Pro Gly Asp
        115                 120                 125
Arg Gly Asp Leu Ser Val Thr Val Glu Ala Tyr Leu Ala Leu Arg Ile
    130                 135                 140
Leu Gly Val Ser Arg Asn Val His Gln Met Arg Arg Ser Gln Ser Phe
145                 150                 155                 160
Ile Leu Ala Glu Gly Ser Ile Ala Asn Val Cys Phe Ile Thr Arg Ile
                165                 170                 175
His Leu Ala Met Phe Gly Leu Tyr Pro Trp Asn Ala Val Arg Ser Leu
            180                 185                 190
Pro Pro Glu Leu Val Leu Leu Pro Gln Tyr Ile Leu Ser Ser Ile Cys
        195                 200                 205
Cys Trp Pro Ala Val Asp Leu Thr Val Leu Ile Pro Leu Leu Ile Leu
    210                 215                 220
Cys His His Arg Pro Ile Phe Pro Leu Pro Ile Gln Asp Cys Ala Ala
225                 230                 235                 240
Ser Ser Tyr Leu His Glu Leu Gln Cys Lys Pro Gln Glu Pro Gln Glu
                245                 250                 255
```

```
Asn Ala Phe Cys Ala Phe Pro Pro Gly Thr Cys Gly Asp Thr Ala Pro
            260                 265                 270
Ala Ser Thr Ser Thr Asp Leu Ile Val His Leu Leu Asn Leu Leu Lys
        275                 280                 285
Tyr Ile Leu Pro Leu Arg Arg Tyr Ala Leu Asp Arg Ser Val Ala Phe
    290                 295                 300
Ile Leu Gln Thr Val Arg Glu Met Gly Gly Val Gly Pro Leu Ser Arg
305                 310                 315                 320
Pro Leu His Met Ala Ile Val Ala Leu Glu Leu Glu Gly Tyr Ser Val
                325                 330                 335
Ser Ser Arg Ser Leu Arg Thr Thr Leu Asp Asn Ile Gly His Phe Val
            340                 345                 350
Tyr Glu Asp Gly Gly Gly Lys Arg Val Leu Ser Val Asn Thr Thr Phe
        355                 360                 365
Arg Asp Ser Ser Arg Met Ile Thr Gly Leu Gln Asp Ala Gly Ile Ala
    370                 375                 380
Val Asn Ala Pro Trp Phe Arg Thr Ser Val Gln Trp Leu Gln Arg Cys
385                 390                 395                 400
Leu Leu Pro Asp Val Asn Ser Asp Thr Ser Lys Thr Phe Glu Thr Arg
                405                 410                 415
Val Cys His Val Asp Asp Val Ala Ser Ala Ile His Ala Val Ile Arg
            420                 425                 430
Gln Asp Pro Leu Met Leu Arg Ser His Leu Val Ala Asn Ala Leu Gln
        435                 440                 445
Trp Leu Leu Lys Arg Gln Asn Ala Asp Gly Gly Trp Thr Ser Leu Ser
    450                 455                 460
Ser Ser His Tyr Arg Thr Ser Pro Asp Lys Leu Val Arg Gln Ser Thr
465                 470                 475                 480
Pro Asp Val Thr Gly His Val Leu Glu Thr Phe Gly Leu Leu Leu Thr
                485                 490                 495
Val Ser Arg Arg Asp Thr Arg Ala Val Ala Gln Gly Ile Leu Val Asp
            500                 505                 510
Gln Val Ala Ser Ala Ser Arg Arg Ala Ile His Tyr Leu Ser Ala Thr
        515                 520                 525
Gln Gln Pro Cys Gly Ala Trp Phe Gly Cys Cys Thr Arg Tyr His Ile
    530                 535                 540
Tyr Ala Thr Ser Ala Val Leu Arg Ala Leu Ala Tyr Phe Ile Gly Val
545                 550                 555                 560
Lys Glu Arg Asn Arg Trp Thr Glu Arg Asp Asp Ser Ile Asn Asp Asp
                565                 570                 575
Val Ser Gln Ala Ile His Trp Leu Glu Ser Ala Arg Asn Arg Asp Gly
            580                 585                 590
Gly Trp Gly Asp Ile Cys
        595
```

<210> 30344
<211> 111
<212> PRT
<213> A.fumigatus

<400> 30344

```
Phe Ala Ser Thr Thr Val Gly Ser Phe Gln Pro Arg Gly Glu Asp Asp
1               5                   10                  15
Pro Val Ser Arg Lys Glu Val Ala Gln Ser Glu Cys Arg Phe Gly Pro
            20                  25                  30
Ala Tyr Ala Pro Asn Thr Thr Phe His Glu Val Val Gly Glu Phe Val
```

```
        35                  40                  45
Asp Ile Lys Tyr Ala Asp Gly Glu Ile Leu Ser Gly Val Ile Gly Thr
    50                  55                  60
Glu Asn Val Thr Leu Ala Gly Ile Thr Val Asn Gln Thr Ile Gly Val
65                  70                  75                  80
Met Asp Tyr Ala Gly Trp Tyr Gly Asp Gly Val Thr Ser Gly Leu Met
                85                  90                  95
Gly Leu Ala Tyr Ser Ser Leu Trp Val Leu Ser Val Pro Leu Leu
            100                 105                 110
```

<210> 30345
<211> 131
<212> PRT
<213> A.fumigatus

<400> 30345

```
Ser Thr Asp Gly Val Tyr Ser Ala Ser Ala Tyr Thr Thr Asn Asn Arg
1               5                   10                  15
Gln Pro Arg Leu Tyr Asn Pro Ile Phe Ala Thr Met Tyr Glu Gln Gly
            20                  25                  30
Leu Ile Asp Pro Ile Phe Ser Met Val Met Asn Arg Asn Ala Ser Asn
        35                  40                  45
Gly Thr Ala Ala Gly Tyr Leu Thr Leu Gly Gly Leu Pro Pro Val Asp
    50                  55                  60
Ile Asn Gly Asn Phe Ser Thr Thr Pro Ile Leu Ile Thr Asn Ile Lys
65                  70                  75                  80
Gly Tyr Pro Lys Asp Tyr Asp Phe Tyr Ala Val Asn Ile Asp Gly Val
                85                  90                  95
Ala Leu Gly Asn Arg Ser Leu Pro Glu Ala Ala Gly Gly Ile Gln Tyr
            100                 105                 110
Ile Val Arg Met Tyr Arg Gly Ser Phe Trp Ile Trp Ala Arg Leu Ile
        115                 120                 125
Ile Thr Asp
    130
```

<210> 30346
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30346

```
Tyr Pro Leu Tyr Gly His Cys Val Cys Ile Phe Thr Met His Arg Ile
1               5                   10                  15
Thr Asn Phe Val Ile Val Glu Ile Thr Pro Ile Gly Ile Gln Asn Ile
            20                  25                  30
Gly Trp Lys Phe Trp Ile Val Trp Thr Ile Thr Asn Ala Ala Cys Leu
        35                  40                  45
Pro Ile Ile Tyr Tyr Leu Tyr Pro Glu Thr Gly Glu Trp Ser Ser Lys
    50                  55                  60
Leu Pro Ile
65
```

<210> 30347
<211> 206
<212> PRT
<213> A.fumigatus

<400> 30347
Gln Cys Thr Gly Ile Asn Ile Met Ser Tyr Tyr Leu Pro Leu Val Leu
1 5 10 15
Ile Asn Ser Val Gly Leu Ser Asn Ser Met Ser Arg Leu Leu Ser Ala
20 25 30
Cys Asn Ala Thr Ser Tyr Phe Val Phe Ala Cys Val Ala Val Ile Met
35 40 45
Val Glu Arg Phe Gly Arg Arg Gly Leu Met Leu Met Ser Thr Phe Gly
50 55 60
Gln Phe Ala Cys Phe Leu Ile Ile Thr Ile Leu Leu Arg Phe Ala Glu
65 70 75 80
Asn Asp Pro Lys Tyr Gly Thr Ala Ser Val Ala Phe Phe Phe Leu Tyr
85 90 95
Tyr Ile Ala Phe Gly Ile Gly Met Met Gly Val Pro Trp Leu Tyr Pro
100 105 110
Thr Glu Ile Asn Ser Leu Arg Met Arg Thr Lys Gly Ala Ala Val Ser
115 120 125
Ser Ala Thr Asn Trp Tyr Asp Ser Ile Leu Phe Met Val Ile Ala Phe
130 135 140
Val Tyr Ser Arg Cys Thr Gly Ser Gln Ile Leu Ser Leu Ser Lys Ser
145 150 155 160
His Leu Leu Gly Tyr Arg Thr Leu Val Gly Asn Ser Gly Ser Cys Gly
165 170 175
Gln Ser Pro Thr Arg Leu Val Phe Arg Leu Tyr Thr Ile Cys Thr Arg
180 185 190
Arg Pro Val Ser Gly Val Arg Ser Tyr Leu Phe Glu Arg Ser
195 200 205

<210> 30348
<211> 71
<212> PRT
<213> A.fumigatus

<400> 30348
Gln Ser Leu Ala Asn Arg Thr Leu Glu Asp Leu Asp Ala Tyr Tyr Arg
1 5 10 15
Ser Asn Pro Pro Leu Ile Val Thr Gly Asp Pro Asp Ala Ile Ser Thr
20 25 30
Gly Arg Pro Leu Lys Tyr Ile Gln His Glu Asp Glu Glu Leu Gln Arg
35 40 45
Gln Ile Lys Gln Arg Gln Ala Thr Gly Glu Glu Gly Lys Ile Gly Ser
50 55 60
Ala Thr Val Gln His Val Gly
65 70

<210> 30349
<211> 99
<212> PRT
<213> A.fumigatus

<400> 30349
Asn Lys Val Ser Ile Ala Asn Gly Phe Asn Thr Ser Asn Ser Ser Cys
1 5 10 15
Leu Ala Lys Leu Arg Leu Pro Pro Ser Ser Gly Glu Glu Ser Trp Ser
20 25 30

```
Phe Trp Arg Met Ala Leu Asn Val Ser Gly Phe Ala Leu Val Asn Trp
        35                  40                  45
Ile Asn Tyr Gly Leu Ser Ser Lys Gly Gly Ala Leu Ala Trp Arg Leu
    50                  55                  60
Pro Ile Ala Leu Gln Phe Phe Phe Ile Phe Ile Leu Tyr Ala Thr Val
65                  70                  75                  80
Pro Trp Leu Pro Glu Ser Pro Arg Leu Ala Ala Pro Asp Ala Pro His
                85                  90                  95
Ala His Ser
```

<210> 30350
<211> 79
<212> PRT
<213> A.fumigatus

<400> 30350

```
His Gln Val Glu Arg Leu Glu Met Ile Lys Ile Ala Arg Asn Gly Gly
1               5                   10                  15
Ser Ile Thr Pro Arg Tyr Gln Lys Ile Phe Lys His His Ala Ala Arg
            20                  25                  30
Asn Arg Val Ser Ile His Thr Arg Thr Val Ile Arg Ser Lys Glu Phe
        35                  40                  45
Cys Pro Ser Ser Gln Thr Trp Arg Leu Thr Thr Asp Pro Pro Ile Pro
    50                  55                  60
Asp Leu Pro Pro Ile Asp Tyr Ile Tyr Cys Ala Thr Gly Met Lys
65                  70                  75
```

<210> 30351
<211> 60
<212> PRT
<213> A.fumigatus

<400> 30351

```
Ser Phe Trp Thr Val Asn Arg Phe Glu Ser Thr Val Asp Gly Met Ser
1               5                   10                  15
Ser Asp Lys Ala Cys Cys Ser Asp Gly Trp Glu Glu Arg Leu Cys Arg
            20                  25                  30
Leu Leu Met Val Asn Ile Ser Leu Ser Tyr Leu Leu Met Lys Gln Ile
        35                  40                  45
Thr Tyr Leu Ser Ile Leu Ser Ile Ser Leu Arg Ala
    50                  55                  60
```

<210> 30352
<211> 80
<212> PRT
<213> A.fumigatus

<400> 30352

```
Ala Leu Ala Leu Leu Gln Ser Ile Asp Ile Ser Leu Tyr Val Val Ala
1               5                   10                  15
Ala Val Val Ile Tyr Tyr Phe Ala Gly Asp Gly Val Thr Ser Pro Ala
            20                  25                  30
Leu Gly Ser Ala Gly Pro Leu Ile Ser Lys Ala Ala Tyr Gly Ile Ala
        35                  40                  45
Leu Pro Thr Val Gly Ile Leu Ile Pro Arg Arg Phe Ser Ser Pro Leu
```

```
    50                  55                  60
Ala Arg Asp Gln Lys Leu Thr Leu Glu Asp Arg His Arg Arg Cys Asn
65                  70                  75                  80
```

JC542 U.S. PTO 09/417507 10/14/99

SEQUENCE LISTING

<210> 30353
<211> 479
<212> PRT
<213> A.fumigatus

<400> 30353

```
Ser Leu Leu Leu Ala Arg Leu Cys Pro Thr Arg Thr Ala Arg Phe Leu
1               5                  10                  15
Arg Thr Ser Thr Pro Lys Val Gly Pro Ala His Glu Met Gln Gly Ala
            20                  25                  30
Ser Arg Gln Gln Glu Asn Gln Leu Leu His Arg Thr Val Pro Met Leu
        35                  40                  45
Pro Asn Ala Thr Met Pro Ile Ile Pro Thr Lys Asn Gly Pro Asp Glu
    50                  55                  60
Lys Pro Pro Trp Ser Glu Met Lys Thr Lys Ala Gly Lys Glu Arg Lys
65                  70                  75                  80
Arg Leu Pro Leu Ala Cys Ile Ala Cys Arg Arg Lys Lys Ile Arg Cys
                85                  90                  95
Ser Gly Glu Lys Pro Ala Cys Lys His Cys Ser Arg Ser Arg Ile Pro
            100                 105                 110
Cys Val Tyr Lys Val Thr Thr Arg Lys Ala Ala Pro Arg Thr Asp Tyr
        115                 120                 125
Met Ala Met Leu Asp Lys Arg Leu Lys Arg Met Glu Asp Arg Val Ile
    130                 135                 140
Lys Thr Ile Pro Lys Asp Glu Pro Arg Asp Met Ala Ala Ile Gly Arg
145                 150                 155                 160
Ser Val Val Arg Pro Pro Gln Pro Gly Gln Ala Ser Lys Thr Gln Lys
                165                 170                 175
Lys Arg Ser Ala Asp Glu Ala Phe Ala Ser Glu Met Glu Glu Trp Ala
            180                 185                 190
His Glu Asp Arg Arg Ala Pro Gln Asp Ile Phe Pro Met Arg Arg Glu
        195                 200                 205
Gly Lys Ser Asn Asp Ala Thr Gly Leu Leu Thr Glu Gly Ala Glu Phe
    210                 215                 220
Leu Pro Ser Leu Glu Ile Gln Glu His Leu Ala Glu Val Phe Phe Asp
225                 230                 235                 240
Cys Val Tyr Gly Gln Ser Tyr Leu Leu Leu His Lys Pro Ser Phe Met
                245                 250                 255
Arg Arg Leu Lys Ala Arg Thr Val Pro Pro Val Leu Ile Leu Ala Val
            260                 265                 270
Cys Ala Val Ser Ala Arg Phe Ser Thr His Pro Gln Leu Ser Ser Asp
        275                 280                 285
Pro Pro Phe Leu Arg Gly Glu Asn Trp Ala Asn Pro Ala Ala Ala Ile
    290                 295                 300
Ala Leu Ser Arg His Asp Glu Pro Ser Ile Thr Ile Leu Thr Val Phe
305                 310                 315                 320
Leu Leu Leu Gly Leu His Glu Phe Gly Thr Cys His Gly Gly Arg Ser
                325                 330                 335
Trp Ser Phe Gly Gly Gln Ala Leu Arg Met Ala Tyr Ala Leu Gln Leu
            340                 345                 350
His Arg Glu Leu Asp Tyr Asp Pro Leu Leu Ser Gln Gly Ser Gly Asn
        355                 360                 365
```

```
Gly Ala Gln Leu Ser Phe Thr Asp Arg Glu Ile Arg Arg Arg Thr Met
    370                 375                 380
Trp Ala Cys Phe Leu Met Asp Arg Tyr Asn Ser Ser Gly Ser Gln Arg
385                 390                 395                 400
Pro Pro Ile Gly Asn Glu Lys Phe Leu Gln Ile Gln Leu Pro Ile Lys
                405                 410                 415
Glu Ser Ser Phe Gln Leu Glu Ile Pro Gly Pro Thr Glu Glu Leu Asp
            420                 425                 430
Arg Asn Val Pro Asn Pro Val Pro Asp Asp Val Gly Gln Leu Ser Asn
        435                 440                 445
Ala Lys Asp Asn Met Gly Val Ser Ala Tyr Ile Ile Arg Ala Val Val
    450                 455                 460
Ile Trp Gly Arg Ile Val Asp Tyr Leu Asn Leu Gly Gly Lys Lys
465                 470                 475
```

<210> 30354
<211> 60
<212> PRT
<213> A.fumigatus

<400> 30354

```
Phe Leu Pro Thr Lys Ile Glu Ile Ile Asp Tyr Ala Thr Pro Tyr Tyr
1               5                   10                  15
His Ser Ser Asn Asp Ile Gly Arg His Ala His Val Ile Leu Gly Ile
            20                  25                  30
Arg Gln Leu Thr Asp Ile Ile Arg Asn Gly Val Trp Asn Val Pro Ile
        35                  40                  45
Gln Phe Leu Arg Trp Ala Arg Tyr Leu Gln Leu Lys
    50                  55                  60
```

<210> 30355
<211> 575
<212> PRT
<213> A.fumigatus

<400> 30355

```
Glu Arg His Ser Asp Ile Asp Ile Asn Phe Leu Asn Tyr Val Phe Arg
1               5                   10                  15
Asn Met Ala Arg Glu Gly Asp Ser Asn Gly Thr Leu Ala Met Pro Arg
            20                  25                  30
Leu Asp Glu Ile Leu Arg His Pro Glu Asp Leu Asp Lys Ile Ala Gly
        35                  40                  45
Leu Lys Ala Glu Tyr Ser Arg Lys Lys Gly Thr Val Asp Ser Gln Leu
    50                  55                  60
Arg Glu Gly Leu Arg His Gln Leu Glu Thr Val Gln Arg Ser Ile Asn
65                  70                  75                  80
Ala Leu Thr Glu Gly Gln Arg Gln Val Thr Lys Thr Arg Asp Glu Leu
                85                  90                  95
Gln Thr Ile Asp Lys Leu Cys Ala Glu Ser Gln Thr Ser Val Asp Asp
            100                 105                 110
Phe Ser Arg Ile Asp Lys Leu Ala Lys Val Gln Arg Asn Phe Glu Ala
        115                 120                 125
Thr Leu Met Met Lys Lys Gly Leu Glu Asn Phe Ser Ile Asp Leu Ala
    130                 135                 140
Glu Val Glu Glu Leu Leu Arg Gln Asp Asp Glu Asp Leu Glu Asn Gln
145                 150                 155                 160
```

```
Pro Asn Leu Leu Arg Val His Met Gln Ile Ser Arg Leu Arg Asp Phe
                165                 170                 175
Arg Asp Glu Ala Met Asp Gln Ile Arg Lys Ala Gln Asp Pro Ser Ser
            180                 185                 190
Glu Ala Ala Leu Thr Asp Tyr Phe Gln Gly Leu Asp Ser Val Ile Asp
        195                 200                 205
Trp Phe Asp Glu His Leu Gly Thr Ala Cys Met Asn Leu Ile Pro Leu
    210                 215                 220
Val Gln Ser Asp Asn Arg Ser Met Val Val Arg Leu Gly Val Ile Val
225                 230                 235                 240
Met Thr Glu Glu Lys Asn Asp Ala Thr Val Arg Ala Leu Gln Glu Ala
                245                 250                 255
Gln Lys Asp His Gln Asp Leu Ala Gly Arg Phe Lys Ser Met Asn Ile
            260                 265                 270
Gly Pro Lys Thr Val Arg Gly Tyr Lys Glu Lys Leu Leu Gln Ala Ile
        275                 280                 285
Glu Leu Tyr Ala Glu Asn Gln Phe Arg Glu Thr Lys Glu Ala Phe Leu
    290                 295                 300
Gly Asp Pro Glu Asn Leu Asp Lys Ser Phe Lys Trp Tyr Phe Asn Asp
305                 310                 315                 320
Leu Phe Ser Val Gln Gln Gly Met Gln Ala Leu Leu Pro Lys Arg Trp
                325                 330                 335
Lys Ile Tyr Lys Thr Tyr Thr Asn Ile Tyr His Arg Met Met His Asp
            340                 345                 350
Phe Leu Ile Asp Leu Ile Asn Asp Pro Asp Leu Pro Ala Asp Asn Leu
        355                 360                 365
Leu Ala Ile Leu His Trp Ser Glu Lys Tyr Tyr Lys Lys Met Lys Lys
    370                 375                 380
Leu Gly Trp Lys Gln Ser Glu Leu Gln Pro Asn Ile Leu Asp Asp Arg
385                 390                 395                 400
Glu Pro Glu Leu Ile Arg Gln Trp Gln Asn Ile Ile Ile Lys Ala Val
                405                 410                 415
Glu Glu Trp Met Glu Arg Ile Thr Glu Thr Asp Arg Lys Gly Leu Val
            420                 425                 430
Glu Arg Ile Pro Asp Ser Leu Asp Thr Asn Ala Glu Gly Tyr Phe Arg
        435                 440                 445
Thr Lys Thr Leu Pro Asp Met Trp Arg Met Leu His Glu Gln Ile Val
    450                 455                 460
Ala Ser Gly Ala Ser Ser Arg Thr Asp Val Val Glu Gly Ile Ile Asp
465                 470                 475                 480
Ala Met Phe Arg Val Leu Lys Ser Arg Gln Thr Asn Trp Gln Met Leu
                485                 490                 495
Ile Asp Glu Glu Cys Gly Lys Tyr Lys Ala Gln Gly Gly Asp Gln Leu
            500                 505                 510
Glu Gly Leu Gln Leu Leu Gln Asp Trp Leu Ile Ala Val Ala Asn Asp
        515                 520                 525
Gln Ile Ala Cys Ile Asp Asp Asn Asp Glu Ser Gly Gln Leu Gly Tyr
    530                 535                 540
Leu Ser Lys Phe Lys Arg Asp Phe Glu Pro Ser Val Asp Pro Ser Leu
545                 550                 555                 560
His His Gly Ala Arg Arg Ile Arg Ala Lys Asp Pro Arg Met Arg
                565                 570                 575
```

<210> 30356
<211> 105
<212> PRT

<213> A.fumigatus

<400> 30356

```
Asp Lys Phe Pro Arg Asp His Cys Tyr Thr Ser Tyr Pro Ser Thr Ala
1               5                  10                  15
Ser Thr Thr Glu Asp Lys Gln Thr Glu Ala Asn Trp Ser Gln Leu Pro
            20                  25                  30
Asn Thr Gln Lys Pro Thr Thr Glu Gln Lys Thr His Ile Pro Val Asp
        35                  40                  45
Met Ser Tyr Phe Arg Val Thr Leu Leu Arg Ser Ala Ile Gly Leu Pro
    50                  55                  60
Arg Arg Thr Thr Asp Val Leu Lys Ala Leu Gly Leu Lys Lys Arg Met
65                  70                  75                  80
Ala Thr Val Phe His Pro Val Ser Pro Ser Val Gly Gly Gln Ile Leu
                85                  90                  95
His Cys Gln Ala Arg Arg Lys Ser Ala
            100                 105
```

<210> 30357
<211> 729
<212> PRT
<213> A.fumigatus

<400> 30357

```
Phe Ser Ser Glu Gly Leu Pro Leu Ala Val Thr Leu Ala Leu Ala Phe
1               5                  10                  15
Ala Thr Thr Arg Met Val Lys Glu Asn Asn Leu Val Arg Val Leu Arg
            20                  25                  30
Ala Cys Glu Thr Met Gly Asn Ala Thr Val Val Cys Ser Asp Lys Thr
        35                  40                  45
Gly Thr Leu Thr Gln Asn Lys Met Thr Val Val Ala Gly Thr Phe Gly
    50                  55                  60
Ala Gln Glu Ser Phe Gly Gln Asp Arg Lys Glu Asp Ala Glu Pro Pro
65                  70                  75                  80
Ser Asp Ser Thr Thr Val Ala Glu Ile Phe Lys Gln Cys Ser Thr Ala
                85                  90                  95
Val Arg Asp Leu Ile Ile Lys Ser Ile Ala Leu Asn Ser Thr Ala Phe
            100                 105                 110
Glu Glu Glu Lys Glu Gly Ser Arg Glu Phe Val Gly Ser Lys Thr Glu
        115                 120                 125
Val Ala Met Leu Gln Met Ala Arg Asp Tyr Leu Gly Met Asp Val Thr
    130                 135                 140
Thr Glu Arg Gly Ser Ala Glu Ile Val Gln Leu Ile Pro Phe Asp Ser
145                 150                 155                 160
Ala Arg Lys Cys Met Gly Val Val Tyr Arg Glu Pro Thr Ala Gly Tyr
                165                 170                 175
Arg Leu Leu Val Lys Gly Ala Ala Glu Ile Met Val Gly Ala Cys Ser
            180                 185                 190
Ser Lys Val Ser Asp Leu Ser Ala Ser Ser Asp Gly Val Met Val Asp
        195                 200                 205
Leu Phe Thr Glu Thr Asp Arg Gln Lys Met Leu Asp Thr Ile Glu Ser
    210                 215                 220
Tyr Ala Met Lys Ser Leu Arg Thr Ile Gly Leu Val Tyr Arg Asp Phe
225                 230                 235                 240
Pro Ser Trp Pro Pro Lys Asp Ala His Arg Val Glu Asp Asp Pro Ser
                245                 250                 255
```

```
Ala Ala Lys Phe Glu Asp Val Phe Arg Asp Met Thr Trp Leu Gly Val
            260                 265                 270
Val Gly Ile Gln Asp Pro Leu Arg Pro Glu Val Pro Val Ala Ile Gln
        275                 280                 285
Lys Cys Arg Ile Ala Gly Val Gln Val Lys Met Val Thr Gly Asp Asn
    290                 295                 300
Leu Ala Thr Ala Thr Ala Ile Ala Gln Ser Cys Gly Ile Lys Thr Glu
305                 310                 315                 320
Asp Gly Ile Val Met Glu Gly Pro Lys Phe Arg Gln Leu Ser Asp Gln
                325                 330                 335
Glu Met Asp Glu Val Ile Pro Arg Leu Gln Val Phe Ala Arg Ser Ser
            340                 345                 350
Pro Glu Asp Lys Arg Ile Leu Val Ala Arg Leu Lys Lys Leu Gly Glu
        355                 360                 365
Thr Val Ala Val Thr Gly Asp Gly Thr Asn Asp Gly Pro Ala Leu Lys
    370                 375                 380
Thr Ala Asp Val Gly Phe Ser Met Gly Ile Ala Gly Thr Glu Val Ala
385                 390                 395                 400
Lys Glu Ala Ser Ser Ile Ile Leu Leu Asp Asp Asn Phe Lys Ser Ile
                405                 410                 415
Val Thr Ala Ile Ala Trp Gly Arg Ala Val Asn Asp Ala Val Ser Lys
            420                 425                 430
Phe Leu Gln Phe Gln Ile Thr Val Asn Ile Thr Ala Val Ile Leu Thr
        435                 440                 445
Phe Val Ser Ser Leu Tyr Arg Ser Asp Asn Thr Ser Val Leu Ser Ala
    450                 455                 460
Val Gln Leu Leu Trp Val Asn Leu Ile Met Asp Thr Phe Ala Ala Leu
465                 470                 475                 480
Ala Leu Ala Thr Asp Pro Pro Thr Glu Gln Ile Leu His Arg Lys Pro
                485                 490                 495
Val Pro Lys Ser Ala Ser Leu Phe Thr Val Thr Met Trp Lys Met Ile
            500                 505                 510
Ile Gly Gln Ala Ile Tyr Gln Leu Ala Ile Thr Phe Met Leu Tyr Phe
        515                 520                 525
Ala Gly Asp Lys Leu Leu Gly Ser Arg Leu Gly Thr Asp Lys Arg Gln
    530                 535                 540
Leu Lys Leu Asp Thr Ile Val Phe Asn Thr Phe Val Trp Met Gln Ile
545                 550                 555                 560
Phe Asn Glu Phe Asn Asn Arg Arg Leu Asp Asn Lys Leu Asn Ile Phe
                565                 570                 575
Glu Gly Met Phe Arg Asn Tyr Trp Phe Leu Gly Ile Asn Cys Ile Met
            580                 585                 590
Val Gly Gly Gln Val Met Ile Ile Tyr Val Gly Gly Ala Ala Phe Asn
        595                 600                 605
Val Thr Arg Leu Asp Ala Val Gln Trp Gly Ile Cys Ile Val Cys Ala
    610                 615                 620
Ile Ala Cys Leu Pro Trp Ala Val Ile Leu Arg Leu Thr Pro Asp Arg
625                 630                 635                 640
Pro Val Glu Ile Ile Ile Asn Phe Val Val Leu Val Val Gly Thr Thr
                645                 650                 655
Leu Arg Pro Ile Gly Lys Ala Val Ser Ala Ile Ser Arg Ile Val Ser
            660                 665                 670
Ser Met Met Trp Pro Val Lys Arg Val Ser Arg Arg Val Leu Arg Arg
        675                 680                 685
Asn Ala Glu Asp Asp Ser Thr Thr Asp Lys Glu Glu Val Pro Met Thr
    690                 695                 700
```

```
Asp Val Glu Lys Gln His Thr Pro Lys Ala Pro Ala Thr Pro Val Val
705                 710                 715                 720
Val Pro Pro Ile Thr Ile Thr Ser Ser
                725

<210> 30358
<211> 241
<212> PRT
<213> A.fumigatus

<400> 30358
Lys Ser Gly Met Glu Ile Arg Val Ser Val Leu Glu Tyr Val Thr Thr
1               5                   10                  15
Arg Ile Gln Ala Leu Arg Ala Gln Gln Gln Lys Leu Arg Ala Ala Thr
            20                  25                  30
Ala Thr Ala Thr Ala Ala Ser Glu Thr Pro Ser Gln Gln Gln Ala Gln
        35                  40                  45
Ile Asp Gly Lys Gln Ala Asn Ala Asn Ala Ala Ala Asp Ala Ala Ser
    50                  55                  60
Pro Ala Pro Ser Thr Asp Thr Glu His Met Pro Thr Thr Leu Val Pro
65                  70                  75                  80
Gly Ser Tyr Glu Asn Ile Ser Ala Ile Arg Ser Asn Thr Met Lys Phe
                85                  90                  95
Phe Pro Asn Phe Phe Ala Arg His Gln Leu Ser Lys Ile Phe Ile Cys
            100                 105                 110
Phe Pro Asp Pro His Phe Lys Ala Arg Lys His Lys Ala Arg Ile Ile
        115                 120                 125
Ser Glu Thr Leu Asn Ala Glu Tyr Ala Tyr Ala Leu Arg Pro Gly Gly
    130                 135                 140
Leu Leu Tyr Thr Ile Thr Asp Val Glu Glu Tyr His His Trp Ile Leu
145                 150                 155                 160
Arg His Phe Gly Val Glu Leu Gly Ala Glu Glu Glu Ser Glu Glu Lys
                165                 170                 175
Ser Thr Ser Pro Asn Ala Asn Ala Asn Ala Gly Val Arg Glu Leu Phe
            180                 185                 190
Glu Arg Val Ser Glu Glu Glu Leu Glu Lys Asp Glu Cys Val Arg Val
        195                 200                 205
Met Lys Glu Ala Thr Glu Glu Gly Lys Lys Val Ala Arg Asn Lys Gly
    210                 215                 220
Asn Lys Tyr Val Ala Val Phe Arg Arg Lys Thr Asp Pro Glu Trp Pro
225                 230                 235                 240
Ala


<210> 30359
<211> 107
<212> PRT
<213> A.fumigatus

<400> 30359
Pro Phe Asp Ser Asn Thr Pro Phe Val Glu Lys Asp Gly Phe Ala Trp
1               5                   10                  15
Cys Leu Gln Cys His Ser Arg Arg Thr Ala Pro Arg Cys Leu Gly Cys
            20                  25                  30
Lys Lys Pro Val Leu Glu Asp Ile Val Val Ser Ala Val Gly Gly Gln
        35                  40                  45
```

```
Trp His Asn Glu Cys Phe Val Cys His Glu Cys Gly Asn Gly Phe Gly
    50                  55                  60
Pro Asp Gly Arg Tyr Phe Val Arg Glu Gly Glu Pro Lys Arg Thr Ser
65                  70                  75                  80
Lys Gly Arg Ile Ile Gly Gly Pro Val Gln Leu Ala Val Cys Glu Arg
                85                  90                  95
Cys Glu Ser Ile Arg Leu Lys Ala Ser Pro Lys
            100                 105
```

<210> 30360
<211> 112
<212> PRT
<213> A.fumigatus

<400> 30360

```
Asp Glu Arg Ala Leu Gly Ser Ser Arg Thr Ser Thr Lys Ala Lys Pro
1               5                   10                  15
Ala Ala Pro Lys Glu Glu Asp Glu Pro Pro Val Glu Thr Thr Ser Lys
            20                  25                  30
Gly Ala Ser Leu Leu Ser Lys Met Gly Trp Ser Ala Gly Ser Gly Leu
        35                  40                  45
Gly Ala Gln Gly Thr Gly Met Thr Ala Pro Ile Ala Thr Glu Val Tyr
    50                  55                  60
Ala Gln Gly Val Gly Leu Gly Ala Gln Gly Ser Lys Leu Gly Asp Ala
65                  70                  75                  80
Val Glu Glu Ala Gly Arg Asn Thr Arg Asn Arg Tyr Asp Glu Phe Leu
                85                  90                  95
Glu Lys Thr Arg Gln Thr Ala Arg Glu Arg Tyr Glu Arg Leu Gly Lys
            100                 105                 110
```

<210> 30361
<211> 253
<212> PRT
<213> A.fumigatus

<400> 30361

```
Leu Tyr Arg Phe Leu Asn Thr Thr Val Leu Lys Ser Leu Pro Ser Ser
1               5                   10                  15
Cys Ala Lys Phe Ile Ser Leu Cys Ile Arg Arg His Lys Ile Ile Thr
            20                  25                  30
Val Asn Phe Thr Tyr Pro Ser Gln Pro Leu Thr Thr Pro Pro Lys Thr
        35                  40                  45
Pro Gln Leu Asn Thr Met Leu Leu Ser Phe Phe Asn Arg Gly Pro Ser
    50                  55                  60
Pro Ser Pro Thr Thr Asp Ser Lys Lys Thr Ser Pro Ala Gln Ser Gln
65                  70                  75                  80
Gln Gly Ser Ile Pro Gly Ser Thr Glu Pro Gln Thr Gln Pro Gln Pro
                85                  90                  95
Gln Ala Gln Gln Thr Gln Ser Gln Pro Gln Arg Pro Leu Thr Asn Leu
            100                 105                 110
Lys Leu Leu Phe Gly Gly Val Thr Phe Phe Ala Leu Ser Leu Leu Ile
        115                 120                 125
Thr Arg Arg Ala Phe Thr Lys Arg Val Ile Ala Ser Ile Pro Pro Tyr
    130                 135                 140
Trp Thr Ser Ser Val Tyr His Arg Pro Pro Val Asn Gly Ala Gly Asp
145                 150                 155                 160
```

```
Ala Phe Glu Ala Leu Ser Leu Ala Thr Leu Asn Val Cys Ser Phe Ala
                165                 170                 175
Met Met Ala Thr Gly Gly Val Leu Tyr Ala Leu Asp Ile Asn Ser Val
            180                 185                 190
Glu Asp Met Arg Arg Tyr Val Lys Lys Gly Met Gly Thr Gly Thr Val
        195                 200                 205
Arg Asp Glu Glu Val Glu Arg Glu Val Glu Glu Trp Val Ala Lys Val
    210                 215                 220
Leu Gly Glu Lys Phe Gly Val Glu Leu Lys Lys Glu Lys Glu Lys Glu
225                 230                 235                 240
Lys Glu Lys Glu Ala Gly Asn Val Glu Gly Lys Gly Glu
                245                 250
```

<210> 30362
<211> 127
<212> PRT
<213> A.fumigatus

<400> 30362

```
Asp Pro Leu Asn Gln Asn Pro Phe Asp Phe Thr Asp Ser Leu Thr Arg
1               5                   10                  15
Leu Ser Ser Ser Leu Phe Leu Leu Leu Ala Pro Ser Leu Ser His Cys
            20                  25                  30
Ala Tyr Ala Gly Ile Lys Leu Ser Pro Ser Thr Ser Pro Thr Arg Val
        35                  40                  45
Asn His Ser Pro Leu His Gln Lys His Leu Ser Ser Thr Pro Cys Cys
    50                  55                  60
Ser Leu Ser Ser Thr Gly Ala Pro Ala Gln Ala Gln Pro Gln Thr Gln
65                  70                  75                  80
Arg Arg His Leu Gln His Asn Pro Asn Lys Gly Pro Ser Arg Asp Gln
                85                  90                  95
Pro Ser Pro Lys Arg Asn His Asn His Lys His Asn Lys Arg Ser Arg
            100                 105                 110
Asn His Lys Gly Pro Ser Gln Thr Ser Asn Ser Ser Ser Ala Ala
        115                 120                 125
```

<210> 30363
<211> 630
<212> PRT
<213> A.fumigatus

<400> 30363

```
Val Lys Thr Arg Arg Glu Ile Asn Ala Met Arg Thr Asn Tyr Thr Leu
1               5                   10                  15
Ser Cys Arg Cys Ile Glu Thr Ile Leu His Lys Ser Gln Pro Ala Met
            20                  25                  30
Asp Lys Ser Glu Leu Asp Pro Glu Lys Gly Phe Leu Cys Tyr Ser Val
        35                  40                  45
Leu Tyr Trp Pro Glu His Val Arg Leu Ser Gln Thr Glu Phe Ala Ile
    50                  55                  60
Arg Glu Glu Phe Lys Asp Phe Phe Gln Ile Gln Leu Glu Thr Trp Gly
65                  70                  75                  80
Arg Trp Leu Asp Tyr Tyr Ser Tyr Leu Lys Gly Ser Ser Tyr Arg Glu
                85                  90                  95
Leu Cys Pro Gly Leu Ala Pro Ile His Val Ala Ala His Trp Gly Ile
            100                 105                 110
```

```
Leu Pro Leu Ile Ser Phe Leu Leu Pro Ala Ser Leu Glu Asp Lys Asp
        115                 120                 125
Ser Arg Gly Gln Thr Pro Leu Leu Ile Ala Ala Gln Ala Val Gln Ile
    130                 135                 140
Glu Ala Met Arg Phe Leu Val Glu Arg Gly Ser Tyr Val Asn Ser Val
145                 150                 155                 160
Asn Asn Cys His Glu Asn Ala Leu Gln Ile Thr Cys Gln Asn Ser Gln
                165                 170                 175
Tyr Asn Asn Cys Ala Met Thr Lys Phe Leu Leu Asp Arg Gly Thr Ser
            180                 185                 190
Pro Tyr Val Cys Asp Lys Glu Asn Met Thr Pro Phe Leu Tyr Ala Ile
        195                 200                 205
Gly His Gln Lys Glu Asp Leu Ala Arg Val Phe Leu Gln Asn Gly Phe
    210                 215                 220
Tyr Val Asp Phe Arg Ile Arg Arg Arg Cys Trp Thr Gly Arg Met Val
225                 230                 235                 240
Asn Asn Ser Ile Ser Tyr Glu Val Asp His Ser Pro Glu Gln His Ser
                245                 250                 255
Asn Leu Gly Val Gln Ser Gly Leu Thr Ala Leu His Phe Ser Ala Leu
            260                 265                 270
Asn Ala Ser Ala Lys Met Ala Thr Leu Leu Leu Gln Tyr Gly Ala Asp
        275                 280                 285
Pro Asn Ala Arg Ser Asp Thr Gly Asp Thr Pro Leu His Leu Ala Ile
    290                 295                 300
Arg Pro Lys Leu Leu Glu His Lys Tyr His Asp Pro Trp Ile Ser Gly
305                 310                 315                 320
Glu Tyr Ala Ala Glu Ser Leu Arg Asp Leu Ile Thr Asp Tyr Glu Ser
                325                 330                 335
Glu Ala Tyr Asp Val Tyr Glu Ser Ile Asp Arg Tyr Arg Val His Ile
            340                 345                 350
Ile Glu Val Leu Leu Ser Ser Asp Ser Val Asp Val Asn Leu Ala Asn
        355                 360                 365
Asp Gln Gly Asp Tyr Pro Gln His Val Ile Pro Phe Glu Arg Asp Tyr
    370                 375                 380
Ala Ser Ser Ile Leu Cys Lys Leu Val Ala Lys Gly Ala Asp Ser Ser
385                 390                 395                 400
Arg Leu Asn Gly Ala Gly Gln Ser Cys Leu His Leu Ala Ser Lys Ala
                405                 410                 415
Gly Asn Leu Glu Val Val Arg Lys Leu Val Asn Gly Gly His Asp Ile
            420                 425                 430
Leu Met Pro Asp Ile Asp Gly Leu Ser Pro Phe His Tyr Ala Leu Arg
        435                 440                 445
Gly Arg Tyr Leu Gln Val Val Arg Phe Met Ser Thr Ala Cys Glu Ser
    450                 455                 460
Leu Leu Ser Lys Thr Trp Arg Ser Leu Asp His Phe Gly Lys Asn Pro
465                 470                 475                 480
Leu His His His Val Ser Ser Ile Phe Cys Ser Ala Glu Met Ile Asp
                485                 490                 495
Phe Leu Val Gln Cys Gly Cys Asn Val Asn Asp Val Asp Arg Glu Gly
            500                 505                 510
Asn Ser Ala Leu Ser Leu Tyr Met Ser Ser Ser His Leu Tyr Ile Asp
        515                 520                 525
Arg Glu Ile Phe Gln Leu Leu Leu Asp Lys Gly Ala Asp Pro Leu Cys
    530                 535                 540
Val Asn His His Lys Glu Asn Leu Ala His Leu Phe Met His Tyr Arg
545                 550                 555                 560
```

```
Glu Glu Gly Ile Gly Ile Leu Gln Ile Leu Leu Lys Cys Gly Val Asp
                565                 570                 575
Leu Ala Ala Arg Asp Leu Glu Gly Arg Thr Val Met His His Gly Ala
            580                 585                 590
Ile Pro Gly Cys Val Arg Pro Thr Pro Pro Arg Phe Ser Ser Arg Ala
        595                 600                 605
Arg Gly Phe Gly Pro Gln Ile Ser Trp Ile Phe Lys Ile Arg Ser Pro
    610                 615                 620
Ser Asn Asn Gln Arg Asn
625                 630
```

<210> 30364
<211> 223
<212> PRT
<213> A.fumigatus

<400> 30364

```
Val Leu Val Gly Trp Met Ala Trp Ile Ile Leu Thr Asn Tyr Lys Gln
1               5                   10                  15
Ser Ile Leu Ser His Leu Pro Glu His Val Asp Ser Glu Thr Ala Lys
            20                  25                  30
Ile Phe Val Leu Ile Tyr Ala Pro Gly Leu Lys His Ala Pro Asn Gln
        35                  40                  45
Gly Gly Ser Ser Asn Pro Thr Leu Ser Val Thr Ser Ser Tyr Ser Asn
    50                  55                  60
Ile Ala Pro Glu Glu Ala Arg Ser Pro Gly Glu Thr Leu Ser Gly Asp
65                  70                  75                  80
Leu Ser Thr Leu Glu Pro Arg Pro Ala Asp Glu Gln Glu Gly Ala Ser
                85                  90                  95
Pro Phe Phe Arg Thr Leu Tyr Thr Gln Ala Gln Ala Ile Val Asp Lys
            100                 105                 110
Glu Asn Thr Ile Met Pro Phe Ser Thr Ala Thr Gly Tyr Val His Leu
        115                 120                 125
Val Arg His Leu Ser Pro Asp Ile Val Tyr Val Gln Glu Ser Leu Thr
    130                 135                 140
Gly Lys Gln Gly Asp Ala Val Gln His Ile Ser Gly Trp Val Arg Gln
145                 150                 155                 160
Val Val Val Val Val Gly Asp Glu Gly Gly Arg Gly Gly Leu Ile Asp
                165                 170                 175
Ser Glu Asp Glu Ser Val Leu Ala Glu Lys Gly Glu Lys Trp Trp Gln
            180                 185                 190
Lys Glu Gly Met Thr Gly Ile Gly Lys Arg Ile Asp Val Val Asp Val
        195                 200                 205
His Arg Thr Gly Glu Asp Trp Arg Arg Arg Val Ser Gly His Asp
    210                 215                 220
```

<210> 30365
<211> 75
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (42)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30365
Met Ser Leu Ile Leu Tyr Leu Arg Ser Ala Ser Thr Gln Tyr Asp Ile
1 5 10 15
Trp Glu Ala Pro Asp Tyr Pro Pro Glu Val Gln Glu Gln Arg His Ser
20 25 30
Arg Ser Met Leu Ser Arg Ser Asn Pro Xaa Asn His His Thr Val Leu
35 40 45
His Ile Ser Thr Arg Gln Gly Lys Glu Phe Glu Ile Asp Ser Thr Val
50 55 60
Ile Ser Val Gln Thr Glu Ser Ser Gly Asn Phe
65 70 75

<210> 30366
<211> 517
<212> PRT
<213> A.fumigatus

<400> 30366
Ala Pro Val Asn Glu Arg Ala Thr Gly Thr Arg Ser Gly Phe Trp Asp
1 5 10 15
Ile Pro Gly Asn Asn Glu Arg Asp Ile Glu Asp Asp Phe Leu Asn Lys
20 25 30
Phe Lys Arg His Gln Ser Arg Tyr Ile Val Arg Gln Ser Lys Arg Leu
35 40 45
Gly Pro Arg Arg Glu Phe Arg Leu Leu Gly Gln Gly Ala Ala Pro Gln
50 55 60
Asn Asn His Ala His Lys Gly Glu Ser Gln Val Asp Asp Val Phe Gly
65 70 75 80
Asp Asp Glu Asp Asp Glu Ser Gly Phe Phe Ser Glu Ile Gln Lys Arg
85 90 95
Thr Ser Ala Glu Gly Pro Pro Pro Ile Thr Arg Lys Ser Thr Ser Gln
100 105 110
Val Ile Asp Ser Ile Asn Ala Val Ser Asp Ser Met Phe Ser Lys Gln
115 120 125
Leu Pro Ala Ala Ala Glu Leu Asn Asn Ser Leu Ala Val Pro Thr Ala
130 135 140
Asp Gly Glu Ile Lys Asn Phe Pro Ser Glu Glu Asp Leu Ala Ala Arg
145 150 155 160
Trp Gln Ala Glu Leu Ser Asp Asp Ala Asp Glu Thr Met Pro Thr Glu
165 170 175
Asp Asp Leu Ala Ala Arg Trp Gln Ala Glu Leu Asp Asp Asp Asp Asp
180 185 190
Asp Leu Leu Leu Asp Asp Asp Thr Thr Asn Ala Gln Arg Pro Pro Glu
195 200 205
Ala Ala Asn Ile Asp His Met Asn Asp Thr Ser Met Leu Gln Ser Pro
210 215 220
Phe Gly Thr Pro Glu Asn Leu Ala Arg Pro Lys Val Gln Pro Val Ser
225 230 235 240
Tyr Thr Pro His Gln Pro Ser Thr Ser Asp Leu Leu Ser Gly Ile Pro
245 250 255
Ala Gln Asn Thr Ala Ala Gln Pro Thr Asn Ala Ser Met Ser Ser Tyr
260 265 270
Phe Ser Ala Gln Ala Pro Pro Asn Pro Val Thr Thr Arg Ala Glu Ser
275 280 285
Phe Ala Glu Arg Ser Lys Glu Gly Tyr Lys Ser Pro Tyr Asp Ile Pro
290 295 300

```
Glu Asp Leu Ala Arg Pro Arg Arg Ala Val Ala Asn Ser Arg Thr Val
305                 310                 315                 320
Val Ala Gln Pro Gly Thr Val Pro Lys Pro Pro Pro Arg Ser Ser Ser
                325                 330                 335
Ile Pro Ala Pro Pro Leu Lys Ala Ser Thr Val Ser Pro Ala Pro Leu
            340                 345                 350
Gly Thr Ser Ser Thr Ala Pro Thr Ala Pro Gln Lys Asn Phe Phe Glu
        355                 360                 365
Glu Leu Pro Leu Pro Pro Pro Arg Pro Lys Ser Arg Pro Ala Ser Ser
    370                 375                 380
Gly Arg Tyr Thr Pro Asn Ala Pro Val Ser Ala Pro Ser Leu Pro Gln
385                 390                 395                 400
Ser Ile Pro Pro Pro Ala Asn Gln Tyr Ser Asn Val Pro Gly Ala Pro
                405                 410                 415
Gln Ser Asn Ile Gly Pro Pro Asp Pro Pro Gln Leu Gln Gln Pro Glu
            420                 425                 430
Arg Leu Asp Pro Tyr Ser Asn Leu Leu Ala Pro Asn Val Pro Ser Ala
        435                 440                 445
Pro Ala Val Pro Ser Thr Ala Ser Arg Tyr Ser Pro Arg Pro Pro Gly
    450                 455                 460
Val Gln Ala Gly Val Lys Pro Pro Pro Ser Pro Arg Tyr Ser Pro Ala
465                 470                 475                 480
Pro Pro Gln Ser Thr Asn Ala Val Ala Ala Ala Ser Tyr Lys Trp Leu
                485                 490                 495
Cys Leu Thr Thr Arg Glu Phe Leu Arg Ala Arg Ser Trp Phe Ser Ile
            500                 505                 510
Ser Asn His Ala Gln
        515
```

<210> 30367
<211> 65
<212> PRT
<213> A.fumigatus

```
<400> 30367
Ser Val Ile His Met Ile Tyr Ile Gly Ser Leu Trp Trp Ser Leu Cys
1               5                   10                  15
Ile Arg Arg Ile Ile Ile Gln Glu Gln Val Val Ile Ile Ile Ile Glu
            20                  25                  30
Phe Arg Leu Pro Pro Gly Ser Gln Ile Ile Phe Gly Gly His Ser Phe
        35                  40                  45
Val Ser Ile Ile Arg Lys Phe Arg Leu Pro Ser Cys Gly Lys Ile Phe
    50                  55                  60
Phe
65
```

<210> 30368
<211> 306
<212> PRT
<213> A.fumigatus

```
<400> 30368
Lys Glu Ile Cys Leu Lys Met Glu Asn Glu Gly Lys Phe Gly Gly Lys
1               5                   10                  15
Asn Thr Glu Phe Lys Ala Arg Gly Glu Asn Ala Leu Ile Gln Val Pro
            20                  25                  30
```

```
Asp Arg Leu Asp Arg Val Arg Leu Trp Arg Leu Asn Gln Val Arg Glu
        35                  40                  45
Met Gly Ala Ile Pro Gly Ile Pro Glu Tyr Gln Glu Trp Ala Arg Ala
    50                  55                  60
Arg Asn Phe Ser Ile Lys Arg Gly Gly Leu Arg Ala Cys Gly Tyr Thr
65                  70                  75                  80
Leu Ser Pro Arg Pro Ala Ala Phe Pro Ser Phe Ser Thr Gly Arg Cys
                85                  90                  95
Thr Thr Asn Pro Ser Asp Asp Pro Ala Arg Ala Arg Lys Ala Ala Lys
            100                 105                 110
His His Ser Ile Cys Pro Leu Ala Ile Gln Ser Gly Arg Ser Arg Arg
        115                 120                 125
Thr Arg Thr His Pro Ala Pro Arg Glu Asp Thr Thr Thr Gly Arg Arg
    130                 135                 140
Arg Gly Arg His Arg Thr Arg Ser Gly Gly Gly Gly Gly Ser Arg Arg
145                 150                 155                 160
Ser Ser Asp Ala Ser Phe Pro Asp Leu Arg Arg Arg Arg Arg Leu Trp
                165                 170                 175
Thr Ser Ala Glu Ser Arg Ser Ala Leu Leu Ser Pro Arg Lys Leu Arg
            180                 185                 190
Ile Ala Ser Pro Lys Arg Trp Thr His Ala Leu Gly Phe Leu Phe Leu
        195                 200                 205
Pro Ile Val Arg Ala Gln Pro Ser Arg Ser Pro Val Ile His Pro Leu
    210                 215                 220
Leu Pro Arg Arg Arg Arg Ser Ser Ala Thr Gly Asn Pro Ala Arg Ser
225                 230                 235                 240
Asn Val Leu Arg Pro Ala Pro Arg Gly Ser Lys Arg Thr Ser Ala Arg
                245                 250                 255
Ala Arg Ala Glu Ser Leu Arg Leu Gln Ser Pro Gly Pro Ala Pro Ser
            260                 265                 270
Ser Ile Ser Thr Ser Asp Pro Ala Tyr Val Ala Pro Ala Pro Asp Trp
        275                 280                 285
Arg Leu Phe Gln Leu Leu Leu Arg Thr Asn Pro Ala Ala His Ser Thr
    290                 295                 300
Glu Leu
305
```

<210> 30369
<211> 323
<212> PRT
<213> A.fumigatus

<400> 30369

```
Thr Lys Leu Glu Lys Trp Gly Arg Ser Pro Val Ser Arg Asn Ile Arg
1               5                   10                  15
Asn Gly Gln Glu Leu Ala Thr Phe Arg Ser Lys Gly Gly Ala Tyr Glu
            20                  25                  30
Leu Ala Gly Thr Pro Cys Pro Arg Gly Arg Gln Leu Phe Leu Arg Ser
        35                  40                  45
Pro Pro Ala Gly Ala Gln Pro Thr Pro Pro Met Thr Gln Pro Ala Pro
    50                  55                  60
Gly Lys Gln Pro Asn Thr Thr Gln Phe Ala Pro Leu Pro Tyr Asn Pro
65                  70                  75                  80
Ala Ala Pro Ala Ala Pro Glu Pro Ile Gln His Arg Glu Lys Thr Pro
                85                  90                  95
Pro Pro Val Asp Ala Ala Asp Gly Thr Gly Leu Ala Ala Ala Ala Ala
```

```
            100                 105                 110
Ala Asp His Gly Ala Pro Val Thr Pro Pro Ser Gln Ile Ser Gly Gly
        115                 120                 125
Gly Gly Gly Tyr Gly Pro Pro Pro Ser His Ala Leu Pro Tyr Ser Pro
    130                 135                 140
Pro Gly Ser Tyr Ala Ser Pro Pro Pro Ser Ala Gly Leu Thr His Ser
145                 150                 155                 160
Gly Ser Phe Ser Ser Gln Ser Ser Val His Ser Pro Pro Gly Val Pro
                165                 170                 175
Ser Tyr Thr Pro Ser Phe Leu Ala Gly Gly Gly Pro Val Pro Pro Gly
            180                 185                 190
Ile Gln Pro Gly Val Met Ser Phe Ala Pro Pro Pro Val Asp Pro Asn
        195                 200                 205
Ala His Leu His Ala His Gly Gln Ser Leu Tyr Gly Ser Asn Pro Gln
    210                 215                 220
Val Gln Pro Gln Val Gln Ser Gln Pro Gln Ile Gln Pro Thr Ser Pro
225                 230                 235                 240
Pro Pro Pro Ile Gly Gly Tyr Ser Asn Tyr Ser Tyr Glu Pro Thr Pro
                245                 250                 255
Gln Pro Thr Ala Pro Asn Tyr Asp Tyr Ala Val His Lys Gln Leu Tyr
            260                 265                 270
Arg Pro Thr Glu Ala Glu Ala Asn Ser His Ala Gln Lys Tyr Ala Gln
        275                 280                 285
Lys Ala Met Gln Asn Pro Gly Gln Arg Ser Arg Lys Phe Glu Asp Gly
    290                 295                 300
Ala Ser Arg Val Glu Ser Ser Val Asn Arg Phe Leu Lys Lys Leu Glu
305                 310                 315                 320
Lys Arg Leu
```

Sequence Listing

<210> 30370
<211> 117
<212> PRT
<213> A.fumigatus

<400> 30370

```
Ser Ala Cys Pro Ser Ile Pro Ala Gly Val Arg Pro Asn Pro Tyr Leu
1               5                   10                  15
Thr Leu Ser Ala Met Ile Ala Ala Gly Ile Asp Gly Met Arg Ser Gln
            20                  25                  30
Gln Pro Leu Arg Gly Gly Asp Cys Val Thr Ser Ala Ser Glu Leu Ser
        35                  40                  45
Pro Gly Glu Arg Gln Ala Leu Gly Ile Asn Thr Ile Leu Pro Lys Ser
    50                  55                  60
Leu Asp Glu Ser Leu Asn Asp Leu Glu Lys Gly Leu Gly Leu Arg Glu
65                  70                  75                  80
Leu Cys Gly His Met Ile Ile Ile Thr Tyr Leu Met Val Lys Arg Thr
                85                  90                  95
Glu Ala Lys Ile Leu Arg Gln Met Ala Glu Asp Asp Arg Arg Asn Trp
            100                 105                 110
Leu Ile Ala Arg Tyr
        115
```

<210> 30371
<211> 457
<212> PRT

<213> A.fumigatus

<400> 30371

```
Cys Gln Cys Ser Arg Ile Ser Ser Ser Ala Ala Ser Ala Gly Leu Ile
1               5                  10                  15
Ser Ile Asn Ser Lys Phe Ile Arg Ser Arg Ser Phe Ser Ile Leu Lys
            20                  25                  30
Leu Thr Val Val Glu Ala Leu Cys Leu Ile Trp Tyr Thr Thr Ser Ala
        35                  40                  45
Thr Thr Asn Thr Ser Ser Lys Ser Ile Leu Asn Ala Leu Pro Lys Pro
    50                  55                  60
Ile Thr Leu Thr Ile Val Gln Phe Ala Phe Val Ser Ile Trp Cys Leu
65                  70                  75                  80
Leu Leu Ala Tyr Leu Ser Ala Val Phe Pro Trp Leu Lys Ser Ser Val
                85                  90                  95
Pro Ala Leu Arg Asn Gly Ile Arg Tyr Pro Ser Arg Asp Val Ile Val
            100                 105                 110
Thr Ala Leu Pro Leu Ala Ile Phe Gln Leu Ala Gly His Ile Leu Ser
        115                 120                 125
Ser Met Ala Thr Ser Gln Ile Pro Val Ser Leu Val His Thr Ile Lys
    130                 135                 140
Gly Leu Ser Pro Leu Phe Thr Val Leu Ala Tyr Arg Val Phe Phe Arg
145                 150                 155                 160
Ile Arg Tyr Ala Lys Ala Thr Tyr Leu Ser Leu Val Pro Leu Thr Leu
                165                 170                 175
Gly Val Met Leu Ala Cys Ser Thr Gly Phe Ser Thr Asn Phe Phe Gly
            180                 185                 190
Ile Leu Cys Ala Leu Leu Ala Ala Leu Val Phe Val Ser Gln Asn Ile
        195                 200                 205
Phe Ser Lys Lys Leu Phe Asn Glu Ala Ser Arg Ala Glu Ser Glu Pro
    210                 215                 220
Gln Ala Ser Gly Arg Lys Lys Leu Asp Lys Leu Asn Leu Leu Cys Tyr
225                 230                 235                 240
Cys Ser Gly Leu Ala Phe Ile Leu Thr Leu Pro Ile Trp Phe Ile Ser
                245                 250                 255
Glu Gly Tyr Arg Leu Ile Ser Asp Leu Met Gln Asp Gly Val Ile Ser
            260                 265                 270
Leu Ser Glu Lys Asp Asn Ser Leu Asp His Gly Ala Leu Phe Ile Glu
        275                 280                 285
Phe Val Phe Asn Gly Ile Ser His Phe Ala Gln Asn Ile Leu Ala Phe
    290                 295                 300
Val Leu Leu Ser Met Ile Ser Pro Val Ser Tyr Ser Val Ala Ser Leu
305                 310                 315                 320
Val Lys Arg Val Phe Val Ile Val Val Ala Ile Val Trp Phe Gly Ser
                325                 330                 335
Ser Thr Thr Ser Leu Gln Ala Phe Gly Ile Ala Leu Thr Phe Val Gly
            340                 345                 350
Leu Tyr Leu Tyr Asp Arg Asn Ser His Asp Asp Val Ala Asp Arg Arg
        355                 360                 365
Ala Asn Ala Asp His Phe Arg Thr Lys Glu Thr Ile Leu Pro Leu Ser
    370                 375                 380
Val Gln Thr Lys Lys Thr Trp Asp Ser Asn Gly Tyr Ala Phe Pro Pro
385                 390                 395                 400
Ser Arg Thr Gly Glu Thr His Ser Met Asp Asn Ser Ala Val Leu Ala
                405                 410                 415
Ala Asn Ser Lys Lys Glu Asp Asp Ala Phe Asp His Val Arg Pro Arg
```

```
            420                 425                 430
Gly Ser Ser Thr Ser Arg Thr Trp Leu Pro Pro Gly Thr Lys Gln Glu
        435                 440                 445
Ser Thr Trp Gln Pro Gly Asp Ala Gln
    450                 455
```

<210> 30372
<211> 157
<212> PRT
<213> A.fumigatus

<400> 30372

```
Trp Ser Thr Asp Ser Val Ser Val Leu Lys Glu Arg Pro Arg Arg Met
1               5                   10                  15
Thr Gly Leu Val Arg Leu Arg Arg Arg Arg Cys Val Arg Leu Ala Trp
            20                  25                  30
Arg Val Val Ser Pro Thr Leu Pro Ala Thr Pro Leu Thr Val Arg Gln
        35                  40                  45
Arg His Asp Met Leu Thr Pro Thr Ala Leu Val Lys Glu Asn Ala Thr
    50                  55                  60
Pro Ser Pro Arg Arg Met Ala Thr Gly Ser Ala Ser Ala Thr Thr Gly
65                  70                  75                  80
Cys Thr Thr Pro His Gln Thr Ala Trp Ser Ser Ala Thr Ala Ser Ser
                85                  90                  95
Ser Ser Ala Val Thr Arg Asn Ala Pro Pro Ala Ala Pro Ser Thr Pro
            100                 105                 110
Pro Thr Arg Pro Thr Ser Arg Met Cys Thr Gly Met Trp Arg Arg Ala
        115                 120                 125
Arg Thr Arg Gly Ser Gly Ser Thr Met Arg Arg Thr Glu Arg Thr Leu
    130                 135                 140
Gly Ala Leu Pro Pro Leu Leu Thr Arg Val Ser Ser Cys
145                 150                 155
```

<210> 30373
<211> 254
<212> PRT
<213> A.fumigatus

<400> 30373

```
Thr Arg Met Ser Arg Arg Thr Ala Arg Arg Thr Ile Met Arg Ser Thr
1               5                   10                  15
Arg Thr Arg Thr Ser Arg Arg Arg Thr Gly Gly Met Ser Arg Arg Trp
            20                  25                  30
Cys Arg Gly Met Arg Ala Arg Arg Arg Cys Leu Arg Gly Ser Trp Pro
        35                  40                  45
Thr Ser Pro Asp Ala Arg Ala Val Ile Pro Met Cys Cys Thr Asn Gly
    50                  55                  60
Ser Ser Arg Arg Ala Ser Thr Ser Arg Ser Trp Ile Ser Gly Ile Trp
65                  70                  75                  80
Phe Ala Leu Ala Met Val Cys Ser Ser Ser Pro Ala Asp Phe Leu Arg
                85                  90                  95
Pro Ser Pro Leu Thr Thr Thr Leu Thr Lys Cys Val Glu Gly Phe Gly
            100                 105                 110
Leu Asp Leu Leu Ser Asp Gly Ser Tyr Pro Phe Thr Tyr Val Glu Gly
        115                 120                 125
Ser Asn Phe Thr Arg Asn Leu Ala Ile Pro Thr Ile Asp Phe Gly Thr
```

```
    130                 135                 140
Phe His Leu Tyr Pro Asp Ser Trp Gly Thr Ser His Glu Trp Gly Asp
145                 150                 155                 160
Leu Trp Val Gln Ser His Gly Ala Ala Cys Thr Ala Ala Gly Lys Pro
                165                 170                 175
Cys Leu Phe Glu Glu Tyr Gly Val Thr Ser Asp His Cys Ala Leu Glu
            180                 185                 190
Thr Pro Trp Gln Lys Thr Ser Leu Asn Thr Thr Gly Leu Ser Gly Asp
        195                 200                 205
Leu Tyr Trp Gln Tyr Gly Asp Thr Leu Ser Thr Gly Pro Ser Pro Asn
    210                 215                 220
Asp Gly Asn Thr Ile Tyr Tyr Gly Thr Asp Glu Phe Gln Cys Ile Val
225                 230                 235                 240
Lys Asp His Val Ala Ala Ile Lys Ala Lys Gln Gly Trp Val
                245                 250
```

<210> 30374
<211> 91
<212> PRT
<213> A.fumigatus

<400> 30374

```
Arg Ala Ser Ala Ser Thr Ser Ser Pro Thr Ala Ala Thr Pro Ser Pro
1               5                   10                  15
Thr Ser Lys Ala Ala Thr Ser Arg Ala Thr Ser Pro Ser Pro Pro Ser
            20                  25                  30
Thr Leu Glu Pro Ser Thr Cys Thr Arg Thr Ala Gly Ala Pro Pro Thr
        35                  40                  45
Asn Gly Ala Ile Ser Gly Tyr Asn Arg Thr Ala Leu His Ala Arg Pro
    50                  55                  60
Pro Ala Ser Pro Val Cys Leu Arg Ser Thr Ala Leu Pro Pro Thr Thr
65                  70                  75                  80
Ala Arg Ser Arg Arg Pro Gly Arg Arg Pro His
                85                  90
```

<210> 30375
<211> 199
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (27)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30375

```
His Lys Thr Ser His Pro Ala Leu Val Glu Gln Ser Ile Thr Met Lys
1               5                   10                  15
Thr Leu Ala Leu Thr Leu Ala Ala Leu Leu Xaa Gln Ala Pro Pro Leu
            20                  25                  30
Gln Ala Lys Met Tyr Arg Gln Asn Ile Leu Thr Phe Glu Val Ser Asn
        35                  40                  45
Asp Ala Arg Ile Asn Gly Gln Lys Ile Glu Tyr Asn Asp Pro Asp Cys
    50                  55                  60
Asp Gln Gly Met Gln Cys Val Val Thr Lys Thr Cys Ala Ala Gln Gly
65                  70                  75                  80
```

```
Thr Gly Pro Thr Leu Ser Ala Asp Lys Lys His Phe Ala Cys Cys Leu
                85                  90                  95
Ala Gly Gln Arg Leu Leu Gly Ser Pro Glu Thr Ala Phe Asp Cys Cys
            100                 105                 110
Ala Asp Gly His Asp Leu Ala Gly Ser Ala Gln Thr Gly Tyr His Cys
        115                 120                 125
Cys Pro Thr Gly Tyr Ser Phe Asp Gly Gln Gln Cys Lys Gln Val Cys
    130                 135                 140
Lys Asn Gly Arg Leu Met Val Asn Gly Gln Cys Val Cys Pro Glu Gly
145                 150                 155                 160
Thr Ala Glu Ala Asn Asp Gly Ser Cys Gln Ala Lys Thr Gln Thr Met
                165                 170                 175
Cys Thr Ser Gly Leu Glu Ser Gly Glu Ser Asn Pro Ser Gly Asp Thr
            180                 185                 190
Leu Asn Arg Gln Thr Thr Ser
        195
```

<210> 30376
<211> 183
<212> PRT
<213> A.fumigatus

<400> 30376

```
Tyr Ala Asn Ala Asp Gly Ser Gly Lys Gly Lys Cys Tyr Thr Phe Thr
1               5                   10                  15
Ala Glu Asn Gly Asn Arg Leu Gly Leu Arg Asn Asp Gly Val Tyr Tyr
            20                  25                  30
Ala Ala Pro Asp Ser Met Val Gln Arg Tyr Gly Lys Phe Gln Leu Cys
        35                  40                  45
Ser Asp Glu Lys Cys Thr Pro Gly Arg Ala Ile Asn Pro Ser Asp Lys
    50                  55                  60
Thr Tyr Ile Lys Asp Val Tyr Gly Asp Val Ala Thr Gly Ala His Ala
65                  70                  75                  80
Gly Gln Trp Leu Asn Asn Ala Gln Asn Gly Ala His Ile Gly Arg Thr
                85                  90                  95
Pro Thr Phe Ala Asn Ala Gly Gln Phe Val Leu Ser Lys Trp Pro Cys
            100                 105                 110
Gly Lys Tyr Cys Leu Gly Gly Phe Ala Ala Gly Ile Gly Pro Ala Cys
        115                 120                 125
Pro Ala Glu Ile Pro Ala Met Thr Phe Tyr Ser Gln Asp Pro Gln Met
    130                 135                 140
Cys Val Pro Phe Glu Leu Thr Glu Val Pro Cys Asp Ile Lys Ala Asn
145                 150                 155                 160
Val Asn Asn Cys Ile Trp Lys Asn Gly Asp Gln Cys Cys Asn Lys Val
                165                 170                 175
Asp Cys Thr Trp Arg Pro Leu
            180
```

<210> 30377
<211> 341
<212> PRT
<213> A.fumigatus

<400> 30377

```
Pro Leu Asp Ala Ser Ala Val Cys Leu Ser Thr Thr Asp Ile Thr Thr
1               5                   10                  15
```

```
Thr Thr Thr Lys Met Lys Phe Ser Trp Leu Thr Val Ala Ser Leu Leu
            20                  25                  30
Met Gly Gln Val Ala Leu Ala Ala Pro Ser Ala Lys Thr Phe Ala Ser
        35                  40                  45
Ala Ser Gly Thr Gln Phe Ser Ile Asp Gly Lys Thr Gly Tyr Phe Ala
    50                  55                  60
Gly Ser Asn Ser Tyr Trp Ile Gly Phe Leu Thr Asn Asn Ala Asp Val
65                  70                  75                  80
Asp Leu Val Phe Asn His Met Lys Glu Ser Gly Leu Lys Ile Leu Arg
                85                  90                  95
Val Trp Gly Phe Asn Asp Val Asn Thr Val Pro Gly Pro Gly Thr Val
            100                 105                 110
Tyr Tyr Gln Val His Ala Asn Gly Lys Ser Thr Ile Asn Thr Gly Ala
        115                 120                 125
Asp Gly Leu Gln Arg Leu Asp Tyr Val Val His Ala Ala Glu Gln His
    130                 135                 140
Gly Ile Lys Leu Val Ile Asn Phe Val Asn Asn Trp Asp Asp Tyr Gly
145                 150                 155                 160
Gly Met Asn Ala Tyr Val Gln Ala Tyr Gly Glu Thr Asp His Asn Ala
                165                 170                 175
Phe Tyr Thr Asn Gln Asn Ile Gln Lys Ala Tyr Arg Arg Tyr Val Lys
            180                 185                 190
Ala Val Val Ser Arg Tyr Ala Ser Ser Pro Ala Val Phe Ala Trp Glu
        195                 200                 205
Leu Ala Asn Glu Pro Arg Cys Lys Gly Cys Asp Pro Asp Val Leu Tyr
    210                 215                 220
Glu Trp Ile Lys Ser Thr Ser Glu Tyr Ile Lys Lys Leu Asp Lys Arg
225                 230                 235                 240
His Met Val Cys Ile Gly Asp Gly Met Phe Leu Leu Pro Ser Arg Leu
                245                 250                 255
Ser Pro Ser Ile Ser Ser Asn Asp Asn Thr Asp Lys Met Cys Arg Gly
            260                 265                 270
Leu Arg Pro Arg Pro Pro Leu Arg Arg Gln Leu Pro Leu His Leu Arg
        275                 280                 285
Arg Arg Gln Gln Leu His Ala Gln Pro Arg His Pro His His Arg Leu
    290                 295                 300
Trp Asn Leu Pro Pro Val Pro Gly Gln Leu Gly His Leu Pro Arg Met
305                 310                 315                 320
Gly Arg Ser Leu Gly Thr Ile Ala Arg Arg Cys Met His Gly Arg Arg
                325                 330                 335
Gln Ala Leu Ser Val
            340
```

<210> 30378
<211> 384
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (81)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30378

```
Val Arg Arg Cys His Ala Ile Pro Pro Gly Pro Gln His Ser Gly Arg
1               5                   10                  15
```

Val Gly Leu Val Tyr Arg Arg Asp Arg Leu Arg His Val Asp Arg Ala
20 25 30
Ala Gly Pro Ala Gln Leu Val Asp Pro Arg Glu Ala Pro Val Asp His
35 40 45
Ala Gln Gly Arg His Asp Pro Val Arg Pro Arg Leu Cys Arg Leu Ala
50 55 60
Pro Gln Pro Arg Ala Arg Leu Asp Arg Val Gln Arg Gln Leu His Ala
65 70 75 80
Xaa Arg Leu Ala Arg Val Asp Gly Ala Ala Leu Leu Pro Ala Leu Asp
85 90 95
Pro Ala Thr Gly Gly Pro Val Pro Ala Arg Gly Gln Asp Pro Arg Ala
100 105 110
Glu Gln Gly Ala His Arg Ala Gln Asp Arg Gln Thr Ala Arg Arg Ser
115 120 125
Arg Ala Arg Thr Leu Ser Pro Ala Gln Glu Lys Ile Pro Gly Gly Asp
130 135 140
Met Ile Asp Trp Phe Lys Ser Arg Tyr Gln Ala Gln Gly Lys Thr Ala
145 150 155 160
Thr Ala His Gln Leu Thr Arg Asp Gln Leu Leu Ala Thr Phe Ala Ser
165 170 175
Ile Tyr Asn Leu Ser Asn Ala Leu Thr Tyr Val Met Phe Asp Leu Ala
180 185 190
Ala Asn Pro Ala Ala Val Asp Glu Leu Arg Glu Glu Leu Asp Gln Val
195 200 205
Leu Gly Pro Asn Val Gly Ala Glu Ser Ile Asp Lys Thr Ala Leu Pro
210 215 220
Arg Leu Ile Lys Leu Asp Ser Phe Val Arg Glu Ser Gln Arg Leu Ser
225 230 235 240
Pro Thr Ser Leu Val Asn Ile Pro Arg Ile Val Thr Asp Pro Asn Gly
245 250 255
Leu Arg Leu Lys Thr Gly His Val Ile Pro Pro Gly Tyr Leu Val Met
260 265 270
Val Arg Ala Gln Pro Ile Asn Gln Ser Pro Thr Leu Tyr Pro Asn Pro
275 280 285
Glu Arg Phe Asp Ala Phe Arg Phe Ala Arg Leu Arg Gln Gln Gly Gly
290 295 300
Ala Asn Glu Asn Arg Trp Gln His Thr Ser Thr Gly Ala Asp Asn Ile
305 310 315 320
Asn Phe Gly His Gly Ile Trp Ala Cys Pro Gly Arg Phe Phe Ala Ser
325 330 335
Ala Glu Ile Lys Val Val Val Ala Tyr Val Ile Arg His Tyr Asp Leu
340 345 350
Arg Leu Ile Glu Gly Arg Pro His Pro Lys Pro Lys Tyr Gly Gly Leu
355 360 365
Ala Ile Phe Pro Asp Ala Gly Ala Glu Val Glu Leu Lys Pro Arg Val
370 375 380

<210> 30379
<211> 238
<212> PRT
<213> A.fumigatus

<400> 30379
Pro Ile Ala Val Gln His Pro Tyr Pro Cys Ala Arg Asn Cys Asp Cys
1 5 10 15
Ile Met Thr Val Leu Pro Asp Ser Glu Asn Gly Tyr Leu Leu Asn Tyr

```
            20                  25                  30
Glu Asp Gln Glu Lys Arg Arg Met Asn Met Gln His Asp Leu Ile Lys
        35                  40                  45
Thr Tyr Met Gly Lys Leu Ile Leu Ala Pro Leu Pro Phe Asp Gln Pro
    50                  55                  60
Asn Leu Arg Val Leu Asp Ser Gly Thr Phe Asn Gly Lys Ser Pro Leu
65                  70                  75                  80
Cys Arg Phe Asp Pro Leu Glu Thr Asn Arg Arg Arg Pro Leu Ala Arg
                85                  90                  95
Arg Arg Leu Asp Pro Pro Pro Val Pro His Ala Arg Arg His Arg Arg
            100                 105                 110
Leu Pro Asn Arg Leu Pro Ser Gln Ala Pro Pro Glu His Arg Val Pro
        115                 120                 125
Arg Ala Val His Leu Arg Pro Leu Ala His Arg Met Ala Arg Leu Val
    130                 135                 140
Arg Pro Arg Pro Pro Glu Thr Gly Asp Cys Met Arg Ala Pro Arg Arg
145                 150                 155                 160
Arg Pro Ala Gly Ala Val Pro Thr His Arg Pro Arg Gln Ala Arg His
                165                 170                 175
Arg Leu Gly Ala Ile His Arg Thr Gln Ser Lys Ala Ser Asp Pro Gly
            180                 185                 190
Ala Ser Glu Ala Ile Pro Cys Ser Arg Ala Leu Pro Phe Ala Gly Gly
        195                 200                 205
Gly Asp Ala Ala Ser Phe Pro Arg Glu Pro Pro Ala Gly Gly Thr Gly
    210                 215                 220
Ala Pro Leu Val Gly Arg Ile Trp Thr Ala Arg Ser Ala Arg
225                 230                 235
```

<210> 30380
<211> 206
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (142)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30380

```
Ser Ser Gln Ser Gln Tyr Pro Asp Thr Pro Phe Ala Leu Gly Val Pro
1               5                   10                  15
Gly Gln Gln Leu Val Val Leu Pro Val Ser Glu Ile Asp Thr Val Lys
            20                  25                  30
Ala Leu Pro Glu Asn Gln Leu Ser Ile Lys Lys His His Tyr Asn Gln
        35                  40                  45
Phe Leu Gly Glu Tyr Ser Tyr Met Gly Thr Lys Ala Asp Glu Phe Asp
    50                  55                  60
Asp Ala Met Arg Tyr Leu Leu Val Arg Asn Thr Pro Ala Val Leu Ala
65                  70                  75                  80
Ser Phe Thr Ala Glu Ile Asp Tyr Ala Met Ser Thr Val Leu Gln Val
                85                  90                  95
Pro Pro Asn Ser Trp Thr Arg Val Lys Pro Arg Ser Ile Met Pro Lys
            100                 105                 110
Val Ala Thr Ile Leu Ser Gly Arg Ala Phe Val Gly Leu Pro Leu Ser
        115                 120                 125
Arg Glu Pro Asp Trp Ile Glu Ser Asn Val Asn Tyr Thr Xaa Asp Val
```

```
    130                 135                 140
Ser Arg Ala Trp Met Val Leu Arg Phe Tyr Pro His Trp Ile Arg Pro
145                 150                 155                 160
Leu Val Ala Pro Phe Leu Arg Glu Val Lys Thr Leu Glu Gln Asn Lys
                165                 170                 175
Ala Leu Ile Gly Arg Lys Ile Ala Lys Leu Leu Ala Asp Gln Glu Arg
            180                 185                 190
Gly Arg Ser Arg Pro Pro Arg Arg Arg Ser Pro Ala Ala Ile
        195                 200                 205

<210> 30381
<211> 61
<212> PRT
<213> A.fumigatus

<400> 30381
Thr Ser Tyr Lys Ala Ile Arg Gln Val Asn Glu Thr Leu Ser His Tyr
1               5                   10                  15
Cys Thr Ser Pro Glu Gly Met Thr Arg Leu Glu His Glu Gln Ser Ser
            20                  25                  30
Pro Lys Gly Asp Thr Thr Tyr Leu Leu Ile Val Gly Ser Ile Lys Gln
        35                  40                  45
Val His Met Lys Ser Val Ser Gly Arg Ser Leu Asp Gln
    50                  55                  60

<210> 30382
<211> 76
<212> PRT
<213> A.fumigatus

<400> 30382
Ser Arg Ser Pro Gly Phe Ile Met Arg Gln Lys Leu Leu Gly Phe Leu
1               5                   10                  15
Leu Ile Ile Arg Ser Ala Phe Tyr Val Phe Phe Val Ser Leu Ile Leu
            20                  25                  30
Phe Ile Leu Pro Leu Ile Leu Val Ser Leu Phe Val Phe Ile Ile Arg
        35                  40                  45
Leu Phe Phe Ser Leu Leu Phe Leu Gly Val Cys His Phe Phe Ser Gly
    50                  55                  60
Ile Cys Leu Leu Phe Leu Arg Leu Arg Leu Leu Leu
65                  70                  75

<210> 30383
<211> 447
<212> PRT
<213> A.fumigatus

<400> 30383
Asn Gly Ser His Ser Thr Gly Val Ile Ile His Glu Leu Glu His Phe
1               5                   10                  15
Ser Asn Gly Ala Asp Glu Asp Leu Val Arg Glu Ser Val Arg Ala Leu
            20                  25                  30
Gly Arg Cys Ala Gln Asn Asp Pro Ser Thr Ala Lys Tyr Cys Leu Val
        35                  40                  45
Val Leu Leu Arg Gln Ile Thr Ser Leu Asp Glu Thr Leu Val Ser Glu
    50                  55                  60
```

```
Ser Leu Thr Val Ile Arg His Leu Ile Gln Gln Asp Pro Ala Ser His
65                  70                  75                  80
Glu Gln Thr Val Ile Arg Leu Val Lys His Leu Gly Ser Ser Ser Ser
                85                  90                  95
Pro Glu Ala Arg Ala Thr Ile Ile Trp Leu Val Gly Glu Phe Ala Gly
            100                 105                 110
Val Asp Pro Lys Arg Asn Ile Ala Pro Asp Val Leu Arg Ile Leu Val
        115                 120                 125
Gln Lys Phe Ala Asp Glu Pro Glu Pro Val Lys Gln Gln Ile Val Leu
    130                 135                 140
Leu Gly Ala Lys Val Tyr Leu His His Leu Leu Arg Asn Pro Pro Lys
145                 150                 155                 160
Gln Pro Thr Glu Asp Pro Ser Val Ser Glu Pro Lys Ile Asn Gln Glu
                165                 170                 175
His Asn Glu Trp Ala Asp Asp Ala Ala Lys Glu Ser Glu Val Asn Asp
            180                 185                 190
Asn Asn Lys Glu Asp Gln Arg Lys Glu Glu Pro Lys Gly Asp Gln Ile
        195                 200                 205
Thr Leu Leu Trp Arg Tyr Ile Leu Leu Leu Ala Arg Tyr Asp Ser Ser
    210                 215                 220
Tyr Asp Leu Arg Asp Arg Ala Arg Met Leu Lys Ala Leu Leu Ala Asp
225                 230                 235                 240
Pro Ser Ser Thr Glu Leu Ala Asn Leu Ile Leu Leu Ala Arg Lys Pro
                245                 250                 255
Val Pro His Ala Pro Ser Pro Ser Glu Thr Arg Lys Glu Leu Leu Leu
            260                 265                 270
Gly Ser Ser Thr Leu Ile Val Gly Pro Asp Ala Gly Pro Phe Gly Leu
        275                 280                 285
Ser Gly Tyr His Asn Leu Pro Asp Trp Val Glu Leu Gly Gln Glu Pro
    290                 295                 300
Asp Pro Ser Leu Arg Glu Ser Glu Met Lys Pro Asp Val Thr Glu Arg
305                 310                 315                 320
Ala Thr Met Thr Ala Gly Gly Lys Leu Asp Arg Ala Leu Met Glu His
                325                 330                 335
Glu Ser Arg Val Ala Ala Met Lys Arg Gln Gln Asn Gly His Val Arg
            340                 345                 350
Ala Gly Ala Ser Ala Ala Lys Thr Lys Thr Leu Asp Gln Trp Leu Glu
        355                 360                 365
Glu Glu Ser Glu Thr Glu Glu Glu Glu Thr Asp Ser Gly Glu Glu Val
    370                 375                 380
Thr Asp Ser Glu Glu Glu Glu Thr Glu Glu Glu Thr Asp Asp Glu Asp
385                 390                 395                 400
Glu Glu Gly Asp Glu Asp Glu Gly Glu Asp Glu Glu Asp Glu Gly Asp
                405                 410                 415
Glu Glu Asp Val Glu Ser Ala Ser Asp Asp Gln Gln Glu Ala Gln Gln
            420                 425                 430
Leu Leu Ser His Asp Glu Pro Gly Ala Pro Gly Ser Arg Gly Phe
        435                 440                 445
```

<210> 30384
<211> 64
<212> PRT
<213> A.fumigatus

<400> 30384
Asn Lys Asn Ile Pro Leu Trp Met Val Pro Tyr Val Arg Tyr Gly Met

```
1               5                   10                  15
Asp Pro Gln Leu Leu Val Ala Gln Ser Gln Gly Lys Ala Phe Arg His
            20                  25                  30
Glu Asn Leu Thr Trp Gln Thr Lys Leu Pro Trp Asp Met Val Val Ala
        35                  40                  45
Leu Lys Gln Ala Val Ser Trp Gly Arg Met Asn Ile Asp Ser Val Arg
    50                  55                  60

<210> 30385
<211> 117
<212> PRT
<213> A.fumigatus

<400> 30385
Val Val Ser Leu Ala Gly Gly Gln Gly Ala Gly Ala Gly Leu Thr Thr
1               5                   10                  15
Val Ala Cys Glu Gln Leu Leu Asp Ile Cys Val Lys Asn Cys Gly Tyr
            20                  25                  30
Pro Phe His Leu Gln Ile Ser Thr Lys Glu Phe Leu Asn Glu Leu Val
        35                  40                  45
Arg Arg Phe Pro Glu Arg Pro Pro Met Arg Pro Ser Arg Val Gln His
    50                  55                  60
Arg Ile Leu Glu Ser Ile Glu Glu Trp Arg Gln Thr Ile Cys Gln Thr
65                  70                  75                  80
Ser Arg Tyr Lys Glu Asp Leu Gly His Ile Arg Asp Met His Arg Leu
                85                  90                  95
Leu Leu Tyr Lys Gly Tyr Met Phe Pro Glu Ile Arg His Glu Asp Ala
            100                 105                 110
Ala Val Leu Ile Phe
        115

<210> 30386
<211> 166
<212> PRT
<213> A.fumigatus

<400> 30386
Lys Thr Ala Leu Met Ile Leu Ser Asn Ser Ser Ser Ser Leu Thr Ala
1               5                   10                  15
Asp Pro Asp Ser Ala Ser Glu Ser Ser Asn Gly Val Gly Ser Gly Arg
            20                  25                  30
Ala Ile Phe Ser Gly Cys Gly Leu Ser Gly Thr Glu Gly Phe Trp Lys
        35                  40                  45
Asp Phe Glu Leu Arg Ile Leu Ala Arg Ile Ser Ala Ile Trp Ala Ser
    50                  55                  60
Ser Ser Glu Ser Ser Glu Met Ala Tyr Gly Ser Arg Ser Ser Ser Ala
65                  70                  75                  80
Ser Ser Ser Ser Ser Pro Ser Pro Ser Leu Cys Ser Ser Phe Ser Ser
                85                  90                  95
Ser Ser Ala Ser Asp Ser Ala Asp Ala Ala Arg Leu Phe Val Phe Pro
            100                 105                 110
Thr Val His Ile Ser Ser Ala Pro Pro Ser Ala Arg Phe Ser Ser Tyr
        115                 120                 125
Ser Arg Ser Ile Leu Ala Asn His Ser Ser Ser Ala Phe Leu Met Ser
    130                 135                 140
Ser Ser Val Ala Gln Ala Ala Tyr Arg Phe Asn Ser Ala Glu Leu Ile
```

145 150 155 160
Ser Arg Lys Ala Ser Pro
165

<210> 30387
<211> 284
<212> PRT
<213> A.fumigatus

<400> 30387
Leu Phe Arg Pro Asn Ala Lys Lys Ile Leu Ser Pro Ala Asp Arg Glu
1 5 10 15
Leu Leu Glu Gln Phe Gly Ala Ala Val Val Glu Cys Ser Trp Val Arg
20 25 30
Val Lys Glu Val Pro Trp Ser Arg Ile Gly Gly Arg Cys Glu Arg Leu
35 40 45
Cys Lys Cys Phe Val Pro Asn Arg Ile Tyr Val Phe Leu Gln Asp Lys
50 55 60
Glu Leu Met Ile Ser Arg Tyr Thr Val Pro Tyr Leu Ile Ala Ala Asn
65 70 75 80
Thr Val Asn Tyr Gly Arg Pro Trp Arg Leu Asn Cys Val Glu Ala Leu
85 90 95
Ala Ala Cys Phe Cys Ile Cys Gly His Glu Asp Trp Ala Arg Glu Val
100 105 110
Leu Lys His Phe Asn Tyr Gly Glu Ala Phe Leu Glu Ile Asn Ser Ala
115 120 125
Leu Leu Lys Arg Tyr Ala Ala Cys Ala Thr Glu Glu Asp Ile Lys Lys
130 135 140
Ala Glu Glu Glu Trp Leu Ala Lys Ile Glu Arg Glu Tyr Glu Glu Asn
145 150 155 160
Arg Ala Glu Gly Gly Ala Asp Asp Met Trp Thr Val Gly Asn Thr Asn
165 170 175
Arg Arg Ala Ala Ser Ala Glu Ser Asp Ala Glu Asp Glu Glu Lys Asp
180 185 190
Glu Gln Ser Glu Gly Glu Gly Glu Asp Glu Glu Glu Ala Glu Glu Glu
195 200 205
Arg Asp Pro Tyr Ala Ile Ser Asp Asp Ser Glu Asp Glu Ala Gln Met
210 215 220
Ala Glu Ile Arg Ala Lys Ile Leu Asn Ser Lys Ser Phe Gln Asn Pro
225 230 235 240
Ser Val Pro Asp Lys Pro Gln Pro Glu Lys Ile Ala Arg Pro Asp Pro
245 250 255
Thr Pro Leu Glu Asp Ser Asp Ala Glu Ser Gly Ser Ala Val Ser Asp
260 265 270
Asp Glu Glu Phe Asp Lys Ile Ile Asn Ala Val Phe
275 280

<210> 30388
<211> 89
<212> PRT
<213> A.fumigatus

<400> 30388
Thr Lys Leu Thr Gln Arg Met Val Arg His Lys Lys Asp Asn Phe Ser
1 5 10 15
Arg Gly Gly Lys Lys Phe Ser Ser Asn Pro Arg Pro Arg Pro Arg Pro

```
            20                  25                  30
Val Pro Arg Asp Asp Asp Asp Gly Ser Ala Thr Asn Arg Pro Ala Phe
        35                  40                  45
Lys Ala Ala Cys Trp Asp Leu Gly His Cys Asp Pro Lys Arg Cys Ser
    50                  55                  60
Gly Lys Arg Leu Met His Phe Gly Leu Met Arg Glu Leu Ala Ile Gly
65                  70                  75                  80
Gln Lys Phe Ala Gly Val Val Ile Ser
                85
```

<210> 30389
<211> 152
<212> PRT
<213> A.fumigatus

<400> 30389

```
Gly Val Ile Glu Asp Leu Val Ala Leu Arg Tyr Val Phe Leu Ala His
1               5                   10                  15
Asn Gly Asn Leu Val Ile Ile Val Leu Thr Ser Gln Leu Ser Gln Arg
            20                  25                  30
Arg Tyr Arg Asp Arg Asp Arg Asp Ser Tyr Arg Arg Arg Asp Arg Ser
        35                  40                  45
Val Asp Arg Arg Asp Asp His Arg Asp Glu Asp Ser Tyr Arg Ser Ser
    50                  55                  60
Arg Arg Asp Arg Ser Arg Asp Arg Arg Arg Ser Arg Asp Arg Gly Asp
65                  70                  75                  80
Asp Arg Asp His Arg Arg Lys Ser Arg Glu Arg Asp Tyr Arg Ser Arg
                85                  90                  95
Arg Asp Asp Ser Arg Asp Arg Ala Arg Arg Arg Thr Asp Asp Ser Ala
            100                 105                 110
Asp Leu Lys His Lys Ser Arg Arg Asp Asp Ser Arg Thr Arg Asn Leu
        115                 120                 125
Asp Ser Lys Pro Arg Glu Val Ser Pro Thr His Asn Val Phe Glu Ile
    130                 135                 140
Ile Tyr Lys Pro Asp Ala Asn Lys
145                 150
```

<210> 30390
<211> 234
<212> PRT
<213> A.fumigatus

<400> 30390

```
Ala Ser Lys Pro Ser Thr Pro Ala Pro Thr Ala Pro Thr Glu Asp Glu
1               5                   10                  15
Lys Arg Ala Glu Arg Leu Ala Lys Leu Glu Ala Trp Lys Gln Lys Gln
            20                  25                  30
Ala Ala Glu Arg Glu Arg Lys Gln Arg Glu Ala Ala Ala Ala Gly Gly
        35                  40                  45
Ala Arg Ser Ile Leu Glu Glu Ile Asp Arg Lys Ser Gly Leu Ser Pro
    50                  55                  60
Ala Val Gly Ser Pro Gln Ser Pro Ala Thr Pro Thr Thr Asp Ala Thr
65                  70                  75                  80
Pro Thr Pro Tyr Ser Gly Lys Phe Asp Pro Lys Ala Ile Val Arg Asn
                85                  90                  95
Ala Ala Pro Ala Pro Ser Thr Pro Ala Val Leu Gly Asn Asp Val Ala
```

```
            100                 105                 110
Val Pro Gln Ser Ala Lys Ala Ser Ala Ser Ser Ser Ser Met Asn Asn
        115                 120                 125
His Val Gln Ala Asn Lys Pro Pro Ala Ala Asn Ser Thr Thr Ser Cys
    130                 135                 140
Lys Leu Tyr Ile Pro Thr Ile Arg Phe Leu Gln Ile Ala Asn Val Thr
145                 150                 155                 160
Cys Thr Ala Thr Ser Thr Val Lys Arg Asn Val Gly Gly Phe Gly Leu
                165                 170                 175
Gly Ala Lys Gln Val Ala Asp Ala Glu Lys Ser Ser Ala Val Lys Thr
            180                 185                 190
Leu Gly Phe Gly Glu Glu Glu Ser Lys Arg Lys Lys Leu Glu Arg Leu
        195                 200                 205
Pro Thr Pro Pro Leu Glu Asp Ala Lys Asp Asp Met Gly Ala Val Gly
    210                 215                 220
Leu His Gln Gly Leu Lys Glu Arg Ser Met
225                 230

<210> 30391
<211> 73
<212> PRT
<213> A.fumigatus

<400> 30391
Lys His Thr Ser Lys Met Ser Ser Asn Lys Pro Tyr Val Ile Lys Gly
1               5                   10                  15
Ile Pro Val Asp Ala Gly Gln Ile Ile Pro Val Arg Arg Asp Ile Asp
            20                  25                  30
Glu Trp Tyr Glu Asp Thr Ser Arg Gln Ser Arg Ile Gln Leu Ser Ile
        35                  40                  45
Phe Ile Trp Ala Leu Arg Glu Phe Gln Ser Ile Asp Tyr Lys Asp Arg
    50                  55                  60
Leu Ser Tyr Phe Gln Ile Ala Gly Leu
65                  70

<210> 30392
<211> 97
<212> PRT
<213> A.fumigatus

<400> 30392
Arg Gln Tyr Leu Arg Phe Asp Pro Val Asn Gly Thr Cys Gly Glu Tyr
1               5                   10                  15
Met Gly Ser Tyr Met Ser Asn Leu Gly Gly Tyr Leu Ala Asp Glu Met
            20                  25                  30
Ala Thr Ala Asn Cys Ser Phe Cys Pro Ile Lys Glu Thr Asn Val Phe
        35                  40                  45
Leu Gly Arg Val Ser Ser Ser Tyr Ser Asp Ile Trp Arg Asn Phe Gly
    50                  55                  60
Leu Met Trp Val Phe Ile Val Phe Asn Ile Phe Ala Ala Cys Ser Leu
65                  70                  75                  80
Tyr Trp Trp Val Arg Val Pro Arg Asp Lys Lys Pro Val Ala Lys Ala
                85                  90                  95
Glu
```

<210> 30393
<211> 79
<212> PRT
<213> A.fumigatus

<400> 30393
Cys Thr Asp Glu Ala Pro Asn Asn Gln Gly Lys Ser Asp Asp Leu Ala
1 5 10 15
Gly Leu Leu Val Tyr Phe Ile Leu Gly Gly Gly Ala Ile Pro Thr Ile
20 25 30
Ala Ala Ser Thr Val Cys Ile Leu Met Leu Phe Leu Arg Phe Asn Val
35 40 45
Pro Ala Gly Tyr Ile Cys Tyr Asp Leu Thr Ser Phe Arg Leu Val Ala
50 55 60
Leu Val Ala Ile Val Thr Val Leu Cys His Phe Ser Val Gln Leu
65 70 75

<210> 30394
<211> 664
<212> PRT
<213> A.fumigatus

<400> 30394
Asn Arg Pro Ser Ser Arg Ser Ser Met Ser Arg Leu Gln Thr Gly Lys
1 5 10 15
Thr Glu Phe Pro Lys Pro Thr Pro Ala Arg Ala Glu Lys Gln Arg Thr
20 25 30
Ser Pro Asp Arg Thr Gln Leu Met Ala Gln Phe Val Asp Val Gly Arg
35 40 45
Lys Leu Met Arg Arg Met Glu Glu Leu Ala Ser Lys Asp Glu Arg Arg
50 55 60
Asp Lys Thr Pro Ala Phe Val Gly Lys Asp Ala Arg Ser Ala Val Asp
65 70 75 80
Arg Asp Arg Ser Glu Arg Met Ala Glu Ala Ser Arg Ser Lys Thr Arg
85 90 95
Ser Gly Ala Ala His Ala Ala Ser Ser Thr Ala Ser Asp Glu His Ser
100 105 110
Glu Gly Ser Thr Thr Ser Ser Gln Glu Asp Ala His Asn Ser Phe Glu
115 120 125
Lys Arg Glu Val Pro Pro Glu Met Leu Tyr Arg Pro Ser Leu Ser Asp
130 135 140
Leu Leu Arg Asp Ala Ser Thr Phe Asn Met Tyr Arg Gln Arg Ala Ile
145 150 155 160
Ala Arg Arg Ile Leu Thr Gln Trp Leu Lys Lys Ala Val Gln Thr Gln
165 170 175
Gln Thr His Arg Asn Met Glu Val Val Ala Val Asn Arg Asp Arg Ile
180 185 190
Thr Leu Leu Arg Gln Ala Phe Glu Thr Trp Arg Thr Ile Val Gln Gly
195 200 205
Lys Arg Arg Ala Ala Gln Thr Glu Lys Phe Phe Lys His Leu Glu Glu
210 215 220
Arg Ala Gly Arg Ala Arg Asp Leu Tyr Leu Met Thr Lys Ala Phe Thr
225 230 235 240
His Trp Ala Gln Ile Ala Ser Asp Glu Val Ala Lys Thr Ser Ala Ala
245 250 255
Arg Arg His Ile Leu Arg Val Lys Tyr Phe Asn Ala Trp Arg Glu Ile

```
            260                 265                 270
Thr Ala Val Asn Glu Leu Lys Ala Gln Arg Phe Ala Leu Gln Arg Pro
        275                 280                 285
Phe Asn Ala Trp Arg Ser Lys Ala Arg Glu Ala Lys Glu Met Glu Gln
    290                 295                 300
Arg Ala Val Ala Val His Asn Lys Lys Leu Ser His Ala Val Tyr Trp
305                 310                 315                 320
Gln Trp Phe Trp Ser Phe Cys Asp Arg Arg Ala Pro Gln Trp Tyr Asp
                325                 330                 335
His Arg Leu Lys Arg Arg Ser Leu Leu Tyr Trp Leu Arg Lys Phe Arg
            340                 345                 350
Met Asn Arg Glu Arg Ile Gln Glu Ile Asp Ala Lys Asn Lys His Thr
        355                 360                 365
Ala Thr Ala Thr Ala Cys Gln Leu Trp His Gln Arg Ser Gln Ala Ile
    370                 375                 380
Val Ala Ala Glu Lys Asp Ala Ile Ser Met Asn Arg Arg Gln Val Leu
385                 390                 395                 400
Gln Glu Lys Leu Glu Glu Trp Arg Val Glu Ala Arg Leu Arg Pro Ile
                405                 410                 415
Ala Ser Arg Val Ser Ala Thr Ile Asp Arg Asn Ile Thr Gln Thr Ala
            420                 425                 430
Phe Ser Gln Trp Ala Arg Arg Leu Arg Met Leu Arg Glu Ala Lys Glu
        435                 440                 445
Val Asp Arg Leu Arg Val Met Arg Asn Ala Trp Thr Ala Trp Asn Asp
    450                 455                 460
Leu Leu Arg Cys Gln Ala Leu Thr Ala Arg Ile Glu Glu Arg Met Lys
465                 470                 475                 480
Ile Glu Ile Met Tyr Lys Trp Ile Leu Ala Glu Arg Phe Arg Leu Met
                485                 490                 495
Gln Arg Ile Arg Asp Gln Arg Ile Thr Arg Asp Val Phe Ala Arg Phe
            500                 505                 510
Val Thr Asn Val Arg Asp Thr Tyr Thr Arg Leu Leu Gln His Ala Asp
        515                 520                 525
Val His Glu Glu Tyr Arg Asn Glu Glu Leu Leu Arg Ser Lys Phe Asn
    530                 535                 540
Cys Trp Arg Glu Gln Leu Ala Leu Gln Arg Gln Arg Glu Val Ala Ala
545                 550                 555                 560
Ala Glu Phe Tyr Ala Pro Arg Leu Gln Gln Glu Ser Leu Val Ala Trp
                565                 570                 575
His Ser Lys His Gln His Thr Thr Lys Leu Glu Arg Trp Ala Arg Asp
            580                 585                 590
Ala Arg Phe Tyr Phe Leu Ala Thr Arg Thr Ile Lys Lys Trp His Lys
        595                 600                 605
Ala Thr Leu Asp Ser Ala Lys Arg Arg Arg Gln Glu Ala Tyr Ala Lys
    610                 615                 620
Met Arg Arg Arg Ile Lys Ile Asn Leu Ala Leu Lys Ala Leu Thr His
625                 630                 635                 640
Trp His Ser Arg Ala Gln His Val Ala Arg Leu Glu Phe Phe Leu Arg
                645                 650                 655
Ser Thr Pro Leu Arg Glu Tyr Ile
            660
```

<210> 30395
<211> 94
<212> PRT
<213> A.fumigatus

<400> 30395
Glu Ala Ser Leu Tyr Ala Lys Ile Gln Lys Cys Glu Phe Ile Val Pro
1 5 10 15
Glu Thr Lys Phe Leu Gly Ile Ile Ile Gly Gln Asp Ser Ile Arg Met
20 25 30
Asp Pro Asp Lys Val Lys Ile Ile Val Asn Trp Gln Val Leu Thr Cys
35 40 45
Val Ala Asp Ala Gln Ala Phe Ile Gly Tyr Trp Phe Trp Gln Leu Leu
50 55 60
Pro Ala Ile Tyr Gln Gly Phe Leu Lys Asn Tyr Cys Ser Leu Ser Glu
65 70 75 80
Pro Asp Trp Glu Gly Cys Pro Ile Tyr Val Asp His Asn Leu
85 90

<210> 30396
<211> 77
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (35)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30396
Gly Ser Tyr Leu Tyr Tyr His Glu His Leu Tyr Ile Pro Asn His Asp
1 5 10 15
Lys Leu Arg Ala Gln Leu Leu Gln Glu Cys His Asp Lys Pro Ala Ala
20 25 30
Gly His Xaa Gly Lys His Lys Leu Tyr Glu Leu Ile Ala Arg Glu Tyr
35 40 45
Tyr Trp Pro Gly Met Tyr Arg Tyr Val Asp Arg Trp Thr Arg Asn Cys
50 55 60
His Thr Cys Cys Arg Ser Thr Leu Ser Cys Glu Ala Arg
65 70 75

<210> 30397
<211> 90
<212> PRT
<213> A.fumigatus

<400> 30397
Pro Ala Leu Leu Met Leu Arg Pro Leu Leu Val Ile Gly Phe Gly Asn
1 5 10 15
Phe Tyr Arg Arg Phe Ile Lys Asp Phe Ser Arg Ile Ile Ala Pro Leu
20 25 30
Val Asn Leu Thr Gly Lys Asp Val Leu Phe Met Trp Thr Thr Thr Tyr
35 40 45
Lys Leu Ser Phe Glu Ala Leu Lys Lys Ala Phe Val Asn Ala Pro Ile
50 55 60
Leu Lys Pro Phe Asn Trp Ile Lys Asp Val Val Val Lys Thr Asn Ser
65 70 75 80
Ser Asn Tyr Met Ser Ala Gly Val Met Ser
85 90

<210> 30398
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30398
Tyr Asp Asn Glu Gly Val Leu His Pro Val Thr Phe Phe Ser Lys Lys
1 5 10 15
Leu Ser Val Thr Glu Cys Asn Tyr Glu Ile Tyr Asp Lys Glu Leu Leu
20 25 30
Thr Ile Ile His Cys Phe Glu Glu Trp Arg Pro Lys Leu Glu Gly Thr
35 40 45
Pro Ser Pro Ile Lys Val Ile Thr Asp His Arg Asn Leu Glu Tyr Phe
50 55 60
Met Ser Thr Lys Leu Leu Asn Arg
65 70

<210> 30399
<211> 73
<212> PRT
<213> A.fumigatus

<400> 30399
Gln Ala Cys Trp Ser Glu Phe Leu Ser Arg Phe Asn Phe Lys Ile Ile
1 5 10 15
Tyr Arg Pro Gly Lys Gln Gly Val Lys Pro Asp Ala Leu Thr Arg Arg
20 25 30
Ser Glu Asp Leu Pro Lys Glu Gly Asp Glu Arg Leu Gln His Gln Ser
35 40 45
Gln Ile Ile Leu Lys Lys Lys Asn Leu Asp Pro Glu Ile Gln Asn Ser
50 55 60
Val Lys Leu Glu Ala Ile Thr Arg Ser
65 70

<210> 30400
<211> 167
<212> PRT
<213> A.fumigatus

<400> 30400
Ala Phe His Cys Ser Met Asn Val His Asn Glu Pro Leu Trp Gln Trp
1 5 10 15
Pro Ser Ser Val Pro Ser Asn Thr Ser Leu Asn Ser Glu Ser Ser Gln
20 25 30
Ser Pro Gln Lys Pro Tyr Gln Ser Ser Asp Glu Asn Pro Thr Thr Glu
35 40 45
Cys Pro Glu Ser Pro Arg Lys His Tyr Pro Asn Arg Thr Cys Arg Ile
50 55 60
Cys Leu Glu Ser Val Pro Pro Thr Phe Tyr Pro Pro Ser Glu Asn Leu
65 70 75 80
Pro Gly Phe Leu Gln Pro Lys Pro Arg Val Val Tyr Glu Ser Ser Asp
85 90 95
Pro Glu Leu Gly Arg Leu Leu Arg Pro Cys Lys Cys Lys Gly Ser Ser
100 105 110
Arg Tyr Val His Glu Gly Cys Leu Gln Ser Trp Arg His Ala Asn Pro
115 120 125

```
Ser Tyr Gly Lys Arg His Tyr Trp Gln Trp Pro Thr Cys Gly Phe Gln
    130                 135                 140
Tyr Arg Leu Glu Arg Leu Lys Trp Ala His Trp Ile Ser Ser Ala Ser
145                 150                 155                 160
Thr Pro Asn Arg Ile Asn Phe
                165
```

<210> 30401
<211> 281
<212> PRT
<213> A.fumigatus

<400> 30401

```
Tyr Cys Asp Leu Thr Met Glu Asp Gln Arg Arg Asp Asn Arg Ile Ala
1                   5                  10                  15
Arg Arg Asp Glu His Ile Pro Gln Ser Glu Gly Arg Gly Asn Asn Thr
            20                  25                  30
His Pro Leu Pro Ser Glu Asn Pro Gln Ser His Glu Leu Asp Ser Tyr
        35                  40                  45
Thr Glu Ala Cys Arg Asp Leu Glu Lys Gln Leu Lys Ala Gln Ile Asn
    50                  55                  60
Leu Ile Lys Arg His Leu Gly Ala Val Gly Met Ser Gln Ser Leu Asp
65                  70                  75                  80
Ala Ser Ser Gln Thr Val Gln Val Gly Pro Ser Asp Ala Met Gln Gly
                85                  90                  95
Gln Pro Ile Ala Ser Glu Ser Ala Ala Pro Ile Thr Pro Thr Lys Thr
            100                 105                 110
Leu Ser Ala Ser Ala Leu Thr Ser Gly His Ala His Ile His Thr Pro
        115                 120                 125
Asn Ile Gly Asn Ser Glu Val Pro Val Val Asn Gln Gly Leu Val Ser
    130                 135                 140
Pro Ala Val Ser Thr Ser Ser Ala Ala Thr Thr Cys Glu Ala Phe Pro
145                 150                 155                 160
Asp Tyr Tyr Glu Ser Cys Glu Lys Asn Pro Pro Ile Val Asp Lys Ala
                165                 170                 175
His Glu Ala Ala Tyr Asn Tyr Ala Ile Ser Lys Val Val Glu Glu Ala
            180                 185                 190
Thr Arg Phe Lys Lys Ile Asp Thr Asn Val Thr Asn Pro Pro Val Leu
        195                 200                 205
Asn Ala Ala Thr Asp Pro Val Val Lys Gly Arg Ser Ala Thr Pro Ser
    210                 215                 220
Ala Lys Lys Ala Leu Gly Thr Phe Gln Thr Ser Lys His Ser Ser Thr
225                 230                 235                 240
Val Pro Met Pro Pro Ile Arg Pro Ser Leu Thr Glu Thr Glu Ile Ala
                245                 250                 255
Glu Arg Lys Thr Lys Leu Leu Ala Glu Met Lys Ala Phe Ile Val Phe
            260                 265                 270
Thr Thr Gly Arg Trp Lys Asp Thr Ser
        275                 280
```

<210> 30402
<211> 66
<212> PRT
<213> A.fumigatus

<400> 30402

```
Gly Asp Trp Leu Asp Ser Glu Phe Asn Glu Val Leu Glu Gly Thr Leu
1               5                  10                  15
Glu Gly His Cys Gln Ser Gly Ser Leu Cys Thr Phe Met Leu Gln Trp
            20                  25                  30
Asn Ala Gln Lys Leu Lys Ser Gln His Ile Asn Gln Ile Tyr Gln Arg
        35                  40                  45
Tyr Gly Ala Arg Ala Ser Ser Asp Ser Ser Asp Asp Arg Asn Thr Arg
    50                  55                  60
Val Ser
65
```

<210> 30403
<211> 166
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (153)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30403

```
Ile Leu Leu Ala Gln Gly Ile Asn Thr Ala Gln Arg Ala Ile Asp Arg
1               5                  10                  15
Pro Leu Cys Ser Leu Gln Thr Ser Arg Thr Asn Met Asp Ser Lys Arg
            20                  25                  30
Gly Val Val Ala Ala Val Leu Ala Leu Leu Pro Leu Val Ser Ala Gln
        35                  40                  45
Gln Pro Ala Ala Ser Ser Ala Gly Asn Pro Lys Leu Thr Thr Tyr Lys
    50                  55                  60
Cys Thr Thr Ala Gly Gly Cys Val Ala Gln Asp Thr Ser Val Val Leu
65                  70                  75                  80
Asp Trp Gly Tyr His Trp Ile His Thr Val Asp Gly Tyr Thr Ser Cys
                85                  90                  95
Thr Thr Ser Ser Gly Val Asp Ser Thr Leu Cys Pro Asp Ala Ala Thr
            100                 105                 110
Cys Ala Lys Asn Cys Val Ile Glu Pro Ala Asn Tyr Thr Ser Ala Gly
        115                 120                 125
Val Thr Thr Ser Gly Asp Ser Leu Thr Met Tyr Gln Tyr Val Gln Ser
    130                 135                 140
Asn Gly Val Tyr Thr Asn Ala Ser Xaa Arg Leu Tyr Met Ser Ser Ser
145                 150                 155                 160
Arg Pro Cys Arg Leu Asp
                165
```

<210> 30404
<211> 61
<212> PRT
<213> A.fumigatus

<400> 30404

```
Ser Phe Tyr Phe Phe Phe Ser Phe Ser Tyr Ile Ser Gly Asp Tyr Arg
1               5                  10                  15
Leu Ser Cys Asn Met Ile Tyr Ala Lys Asn Ser Ala Cys Leu Ile His
            20                  25                  30
Leu Ser Ser Ser Leu Lys Glu Arg Ser Leu Tyr Ala Phe Tyr Tyr Pro
```

```
        35                  40                  45
Gln Met Ala Val Thr Asn Glu Arg Ile Phe Pro Leu His
    50                  55                  60

<210> 30405
<211> 75
<212> PRT
<213> A.fumigatus

<400> 30405
Arg Asp Ala Thr Ser Leu Phe Cys His Thr Met Ala Ser Asp Leu Gln
1               5                   10                  15
Pro Pro Asn Asp Arg Lys Arg Val Lys Val Tyr Glu Leu Arg Asp Asn
            20                  25                  30
Asp Trp Phe Asp Arg Gly Thr Gly Phe Cys Met Gly Gln Ile Leu Asp
        35                  40                  45
Val Ser Pro Arg Cys Arg Ser Pro Ser Gln Arg Lys Lys His Arg Pro
    50                  55                  60
Leu Ser Ala Arg Lys Leu His Leu Ala Ser Arg
65                  70                  75

<210> 30406
<211> 116
<212> PRT
<213> A.fumigatus

<400> 30406
Leu Cys Pro Leu Leu Asp Asp Ala Leu Ser Asp Asp Leu Glu Ser Tyr
1               5                   10                  15
Gln Ser Ile Met Leu Pro Pro Pro Glu Leu Gly Asn Leu Pro Asp Ile
            20                  25                  30
Asp His Ile Met Arg Ala Ala Ser Ile Thr Gln Gly Gly Arg Asp Ala
        35                  40                  45
Leu Ser Lys Phe Val Ile Arg Asp Glu Tyr Ile Pro Lys Leu Ile Pro
    50                  55                  60
Leu Val Thr Val Ala Glu Asp Leu Glu Ser Leu Pro Asp Leu His Arg
65                  70                  75                  80
Leu Cys Asn Ile Met Lys Ser Leu Ile Leu Leu Asn Asp Asn Thr Ile
                85                  90                  95
Ile Glu Thr Val Val Thr Asp Asp Ile Ile Leu Gly Val Val Gly Ala
            100                 105                 110
Leu Glu Cys Ala
        115

<210> 30407
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30407
Phe Ile Pro Asp Asp Pro Glu Phe Pro Thr His Lys Ala Asn His Arg
1               5                   10                  15
Gln Tyr Leu Ala Asp Gln Ser Arg Tyr Lys Glu Val Val Pro Ile Lys
            20                  25                  30
Asp Pro Ile Ile Arg Arg Lys Ile Arg Tyr Thr Trp Arg Leu Gln Tyr
        35                  40                  45
```

```
Leu Lys Asp Val Val Leu Ala Arg Met Ser Ser Pro Arg Gly Trp Lys
    50                  55                  60
Asp Pro Arg Trp Arg Tyr Val Ser
65                  70

<210> 30408
<211> 489
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (58)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30408
Leu Leu Tyr Phe Lys Asp Pro Val Phe Pro Ala Pro Ala Asp Ala Phe
1               5                  10                  15
Lys Gly Phe Asp Gln Gly Gln His His Gly Met Ala Asn Pro Met Gly
            20                  25                  30
Leu Asp Ser Glu Asp Glu Pro Arg Arg Gly Thr Ser Arg Ala Asn Ser
        35                  40                  45
Val Arg Phe Asp Glu Ser Ala Ile His Xaa Tyr Tyr Gly Gln Ala Ser
    50                  55                  60
Arg Ser Thr Ser Glu Leu Pro Leu Arg Thr Gly Ser Gly Met Gly Ser
65                  70                  75                  80
His Pro Leu Thr Glu Arg Ser Leu Ser His Arg Ser Asp Gly Arg Gln
                85                  90                  95
Ser Ser Ser Gly His Ser His His Ser Ala Arg Thr Asn Ser Leu Gly
            100                 105                 110
Leu Glu Thr Thr Ser Arg Leu Met Gly Ser Phe Val Gly Gly Ser Pro
        115                 120                 125
Leu Ile Pro Pro Pro Gly Ile Phe Phe Ile Gly Pro Val Arg Cys Val
    130                 135                 140
Ile Arg Cys Trp Leu Thr Thr Asn Phe Ser His Asp Ser Leu Leu Tyr
145                 150                 155                 160
Ala Ala Val Cys Ser Gly Ser Tyr Ala Ser Ile Leu Gly Tyr Pro Met
                165                 170                 175
Val Gln Lys Leu Gly Leu Glu Asp Leu Val Thr His Glu Asp Gly Val
            180                 185                 190
Arg Phe Ile Lys Leu Pro Met Tyr Leu Pro Glu Ala Ser Val His Gln
        195                 200                 205
Ala Ser Ser Arg Pro Asn Ser Pro Val Pro Gln Leu Pro Thr Leu Thr
    210                 215                 220
Ile Arg Phe Leu Val Arg Asp Met Asp Pro Asn Asp Pro Ser Ile Gln
225                 230                 235                 240
Ile Ile Leu Gly Ser Asp Val Leu Arg Ser His Asn Ala Asp Ile Leu
                245                 250                 255
Phe Ser Gln Asp Lys Ile Ile Met Val Asp Asp Glu Arg Asn Lys Ile
            260                 265                 270
Ser Ile Pro Leu Val Arg Pro Glu Asp Asp Ser Val Phe Lys Ser Leu
        275                 280                 285
Cys Thr Ala Ser Asp Cys Thr Arg Val Glu Arg Ser Thr Arg His Ala
    290                 295                 300
Leu Glu Lys Gly Pro Thr Glu Val Ser Gly Asp Ser Ala Val Gly Ala
305                 310                 315                 320
```

```
Ile Gly Glu Leu Ser Arg Ser Arg Arg Ser Thr Ser Ala Ser Thr Thr
                325                 330                 335
Ala Arg Ala Ser Thr Glu Glu Leu Asp Glu Ser Arg Lys Thr His Ser
            340                 345                 350
Ser Gly Ser His Asp Val Ser Pro Val Ala Glu Gly Gln Glu Asp Ser
        355                 360                 365
Gly Lys Ser Thr Ser Ala Ile Asp Phe Gln Ala His Glu Thr Ala Lys
    370                 375                 380
Pro Glu Thr Ala Gly Val Trp Gly Ala Trp Arg Arg Glu Met Lys Ile
385                 390                 395                 400
Asp Pro Ala Ser Ser Gly Ala Ser Lys Pro Ser Arg Gly Arg Thr Met
                405                 410                 415
Lys Val Leu Arg Pro Thr Lys Ser Ser Thr Arg Val Pro Thr Ala Ser
            420                 425                 430
Ser Gly Leu Gly Thr Asp Ala Ala Ala Ser Pro Gln Pro Thr Ser Ser
        435                 440                 445
Arg Ala Ser Ser Asp Glu Ser Arg Ala Gly Lys Gln Leu Ala Pro Asn
    450                 455                 460
Pro Ile Gly Gly Ala Ser Ala Phe Gly Trp Leu Asn Ser Ser Gln Pro
465                 470                 475                 480
Pro Lys Arg Val Val Thr Met Pro Lys
                485
```

<210> 30409
<211> 154
<212> PRT
<213> A.fumigatus

<400> 30409

```
Pro Cys Pro Phe Val His Thr Ser Arg His Asp Arg Lys Arg Lys Arg
1               5                   10                  15
Arg Asp Gln Ile Phe Glu Asn Thr Ser Ile Ala Ser Leu Val Ser Ser
            20                  25                  30
Phe Ala Ser Leu Thr Asn Pro Leu Thr Ala Leu Asn Ser Ala Leu Pro
        35                  40                  45
Ala Ser Pro Asn Ile Ser Asn Lys Ile Pro Ser Leu Leu Val Thr Thr
    50                  55                  60
Ala Pro Ala Ser Arg Ser Arg Ala Ser Ala Thr Pro Leu Ser Ser Leu
65                  70                  75                  80
Phe Met Leu Leu Thr Pro Ser Thr Ile Thr Tyr Thr Leu Cys Pro Arg
                85                  90                  95
Ser Ser Lys Ser Ser Val Val Cys Val Ile Gln Ile Cys Val Ser Ile
            100                 105                 110
Pro Thr Met Ile Thr Ser Arg Gly Val Ser Pro Pro Phe Thr Phe Gly
        115                 120                 125
Ser Ser Ala Ser Ser Ser Gly Val Ile Ile Glu Lys Ser Val Leu Ser
    130                 135                 140
Met Leu Ala Arg Thr Ser Gly Val Glu Arg
145                 150
```

<210> 30410
<211> 170
<212> PRT
<213> A.fumigatus

<400> 30410

```
Thr Thr Lys Leu Leu Lys Ala Ser Ser Ala Leu Asn Ile Pro Ile Tyr
1               5                  10                  15
Val Thr Thr Gln Asn Arg Pro Arg Leu Gly Asp Ile Val Ser Glu Leu
            20                  25                  30
Gln Pro Tyr Leu Ser Thr Pro Leu Val Arg Ala Asn Ile Asp Lys Thr
        35                  40                  45
Leu Phe Ser Met Ile Thr Pro Glu Leu Asp Ala Leu Leu Pro Asn Val
    50                  55                  60
Lys Gly Gly Glu Thr Pro Leu Asp Val Ile Ile Val Gly Ile Glu Thr
65                  70                  75                  80
His Ile Cys Ile Thr Gln Thr Thr Leu Asp Leu Leu Glu Arg Gly His
                85                  90                  95
Arg Val Tyr Val Ile Val Asp Gly Val Ser Ser Met Asn Lys Glu Glu
            100                 105                 110
Arg Gly Val Ala Leu Ala Arg Leu Arg Asp Ala Gly Ala Val Val Thr
        115                 120                 125
Ser Ser Glu Gly Ile Leu Phe Glu Ile Leu Gly Asp Ala Gly Arg Ala
    130                 135                 140
Glu Phe Lys Ala Val Ser Gly Leu Val Arg Glu Ala Lys Glu Glu Thr
145                 150                 155                 160
Arg Glu Ala Met Glu Val Phe Ser Lys Ile
                165                 170
```

<210> 30411
<211> 135
<212> PRT
<213> A.fumigatus

<400> 30411

```
Asp Gly Leu Thr Leu Ser Arg Leu Pro Ala Pro Thr Ser Ser Leu Pro
1               5                  10                  15
Arg Thr Pro Thr Gly Thr Ile Asp Met Asn Cys Pro Val Thr Asp His
            20                  25                  30
His Leu Thr Ala Asp Asp Cys Arg Tyr Tyr Val Arg Ala Ala Ala Val
        35                  40                  45
Ala Arg His Ile Tyr Met Arg Lys Thr Val Gly Val Gly Arg Leu Arg
    50                  55                  60
Lys Val His Gly Ser Thr Lys Asn Arg Gly Ser Arg Pro Asn His His
65                  70                  75                  80
Val Asp Ala Ser Gly Ser Val Asp Arg Lys Ile Ile Gln Ser Leu Glu
                85                  90                  95
Lys Ile Gly Val Leu Glu Tyr Asp Glu Glu Lys Gly Gly Arg Arg Ile
            100                 105                 110
Thr Gln Ala Gly Gln Arg Asp Leu Asp Arg Ile Ala Lys Thr Thr Val
        115                 120                 125
Asp Glu Glu Glu Asp Glu Glu
    130                 135
```

<210> 30412
<211> 154
<212> PRT
<213> A.fumigatus

<400> 30412

```
Lys Lys Phe His Ser Ser Pro Ala Glu Ser Ile Val Tyr Gln Thr Asn
1               5                  10                  15
```

```
Ser Ser Met Leu Pro Thr Cys Met Leu Leu Asp Arg Phe Asn Ser Lys
            20                  25                  30
Pro Pro Ser Phe Pro Ser Cys Asn Asn Met Gly Glu Leu Phe Leu Asp
        35                  40                  45
Lys Glu Asn Thr Glu Arg Phe Lys Met Lys Thr Ser Gly Thr Phe Tyr
    50                  55                  60
Cys Phe Ser Arg Arg Leu Ile Tyr Ser Ser Ser Ser Ser Ser Ser Thr
65                  70                  75                  80
Val Val Leu Ala Ile Arg Ser Arg Ser Arg Trp Pro Ala Trp Val Met
                85                  90                  95
Arg Arg Pro Pro Phe Ser Ser Ser Tyr Ser Arg Thr Pro Ile Phe Ser
            100                 105                 110
Arg Asp Trp Met Ile Leu Arg Ser Thr Glu Pro Glu Ala Ser Thr Trp
        115                 120                 125
Trp Leu Gly Arg Glu Pro Arg Phe Leu Val Glu Pro Trp Thr Leu Arg
    130                 135                 140
Arg Arg Pro Thr Pro Thr Val Leu Arg Met
145                 150
```

<210> 30413
<211> 431
<212> PRT
<213> A.fumigatus

<400> 30413

```
Gln Ala Arg Gly Leu Arg Thr Arg Gly Thr Met Asn Glu Asn Asp Glu
1               5                   10                  15
Asn Gly Pro Ser Thr Arg Leu Thr Arg Ala Lys Ala Ala Ala Leu Ser
            20                  25                  30
Ala Gly Asp Val Pro Thr Thr Thr Ala Ala Ala Lys Lys Pro Leu Gln
        35                  40                  45
Ser Lys Lys Ala Ala Thr Asn Ser Thr Thr Thr Gly Thr Gln Arg Arg
    50                  55                  60
Arg Ala Ala Leu Gly Asp Val Ser Asn Val Thr Lys Ser Glu Asn Gly
65                  70                  75                  80
Glu Ala Lys Glu Thr Lys Lys Ala Ala Ser Gly Lys Val Gly Leu Thr
                85                  90                  95
Ser Lys Ala Thr Met Gln Thr Gly Gly Ile Gln Lys Leu Ser Arg Thr
            100                 105                 110
Asn Ser Ser Arg Thr Ala Leu Gly Ala Lys Asp Asn Ala Lys Lys Glu
        115                 120                 125
Lys Pro Ala Val Glu Gly Lys Arg Pro Gly Ser Gly Ser Gly Ile Gly
    130                 135                 140
Ser Thr Gln Met Lys Arg Thr Ser Ser Gln Lys Ser Val Gln Glu Lys
145                 150                 155                 160
Ser Leu Gln Val Glu Glu Pro Pro Arg Lys Lys Val Glu Val Glu Lys
                165                 170                 175
Lys Thr Thr Glu Lys Lys Thr Thr Val Glu Val Ser Thr Ala Lys Glu
            180                 185                 190
Asp Ala Val Ile Ala Thr Glu Pro Glu Val Ala Lys Lys Pro Asp Asp
        195                 200                 205
Val Val Asp Asp Leu Asp Thr Glu Asp Leu Asp Asp Pro Leu Met Ala
    210                 215                 220
Ala Glu Tyr Val Val Glu Ile Phe Asp Tyr Leu Arg Asp Leu Glu Leu
225                 230                 235                 240
Glu Thr Leu Pro Asn Pro His Tyr Ile Asp His Gln Pro Asp Leu Glu
```

```
                245                 250                 255
Trp Lys Met Arg Gly Ile Leu Val Asp Trp Leu Ile Glu Val His Thr
            260                 265                 270
Arg Phe Arg Leu Leu Ala Glu Thr Leu Phe Leu Ala Val Asn Ile Ile
        275                 280                 285
Asp Arg Phe Leu Ser Ala Glu Val Val Ala Leu Asp Arg Leu Gln Leu
    290                 295                 300
Val Gly Val Ala Ala Met Phe Ile Ala Ser Lys Tyr Glu Glu Val Leu
305                 310                 315                 320
Ser Pro His Val Ala Asn Phe Ser His Val Ala Asp Glu Thr Phe Thr
                325                 330                 335
Asp Lys Glu Ile Leu Asp Ala Glu Arg His Ile Leu Ala Thr Leu Glu
            340                 345                 350
Tyr Asn Met Ser Tyr Pro Asn Pro Met Asn Phe Leu Arg Arg Ile Ser
        355                 360                 365
Lys Ala Asp Asn Tyr Asp Ile Gln Thr Arg Thr Leu Gly Lys Tyr Leu
    370                 375                 380
Met Glu Ile Ser Leu Leu Asp His Arg Phe Met Cys Tyr Pro Gln Ser
385                 390                 395                 400
His Val Ala Ala Ala Ala Met Tyr Leu Ala Arg Leu Ile Leu Glu Arg
                405                 410                 415
Gly Ala Trp Val Arg Thr Leu Ala Leu Val Arg Gln Ser Asp Leu
            420                 425                 430
```

<210> 30414
<211> 127
<212> PRT
<213> A.fumigatus

<400> 30414

```
Gln Thr Phe His Arg Ser Thr Val Gln Thr His Thr Ser Asn Ile Gly
1               5                   10                  15
Gln Leu Asn Pro Arg Leu Ile Asn His Arg Val Pro His Tyr Gln Phe
            20                  25                  30
Gln Pro Ile Ile His Ser Ile Ser Lys Gln Pro Arg Lys His His Pro
        35                  40                  45
Thr Ser Pro Gln Ile His Gln Leu Thr Thr His Thr His Gln Leu Gln
    50                  55                  60
Pro Gln Arg Arg Ala His Pro Gln Gly Lys Asn Val Leu Val Pro Glu
65                  70                  75                  80
Asn Val His Pro Ser Pro Pro Leu Pro Arg Leu Val Pro His Asn Arg
                85                  90                  95
Arg Ser Pro Leu Pro Thr Ser Arg Asn Pro Gln Leu Gln Ser Gly His
            100                 105                 110
Ala Gln Pro Leu Cys Pro Ala His Gln Leu Arg Ala Leu Ala Glu
        115                 120                 125
```

<210> 30415
<211> 185
<212> PRT
<213> A.fumigatus

<400> 30415

```
Gln His Thr Pro Thr Ser Phe Asn His Asn Val Glu Pro Ile Arg Lys
1               5                   10                  15
Ala Lys Met Ser Trp Phe Gln Lys Thr Phe Thr Leu Pro Pro Arg Ser
```

```
            20                  25                  30
Arg Gly Ser Tyr Leu Ile Thr Asp Glu Val Leu Ser Gln Leu Pro Glu
        35                  40                  45
Ile Arg Asn Tyr Lys Val Gly Met Leu Asn Leu Phe Val Gln His Thr
    50                  55                  60
Ser Cys Ala Leu Ser Leu Asn Glu Asn Trp Asp Glu Asp Val Arg Ala
65                  70                  75                  80
Asp Met Ser Asp Ala Leu Asp Arg Ile Val Pro Thr Asp Arg Lys Gly
                85                  90                  95
Asn Leu Tyr Arg His Ser Ala Glu Gly Glu Asp Asp Met Pro Val Cys
            100                 105                 110
Ser Leu Ser Phe Phe Val Arg Cys Leu Arg Ile Ala Leu Arg Glu Trp
        115                 120                 125
Arg Met Gly Leu Thr Ser Gly Ala Gly Ser Tyr Gln Val Arg Ser Cys
    130                 135                 140
Gly Gly Val Gly Gln Tyr Ser His His Glu Trp Ala Val Gly His Trp
145                 150                 155                 160
Tyr Val Ala Gly Asp Leu Val Phe Gly Val Ser Asp Glu Ser Ala His
                165                 170                 175
Ala Gln Gly Cys Cys Asp Asp Ser Gly
            180                 185
```

<210> 30416
<211> 205
<212> PRT
<213> A.fumigatus

<400> 30416

```
Thr Trp Phe Tyr Gln Lys Gly Trp Cys Arg Val His Arg His Arg Asp
1               5                   10                  15
Arg Ser Arg Leu Val Ser Lys Trp Asn Ser Arg Ser Asp Arg Ser Glu
            20                  25                  30
Glu Leu Thr Glu Phe Ser Asp Trp Glu Arg Val Ile Ile Ile His Ser
        35                  40                  45
Arg Asp Ala Asn Asn Met Trp Ala Pro Thr Arg Ala Phe Leu Phe Ala
    50                  55                  60
His Ser Gly Tyr His Asp Leu Ala Trp Gly Asp Ile Gln Asn Thr Leu
65                  70                  75                  80
Thr Thr Asp Glu Ile Asn Ala Gly Asp Ala Lys Asn Pro Asn Gly Val
                85                  90                  95
Gln Asn Asn Asp His Pro Lys Val Tyr Val Ala Trp Ser Lys His Ala
            100                 105                 110
His Phe Asp Asp Arg Asn Thr Gly Trp Asn Asp Pro Ile Ser Gln Ser
        115                 120                 125
Thr Asp Asn Ala Phe Arg Ser Asp Asp Trp Trp Tyr Tyr Val Asp Lys
    130                 135                 140
Ser Tyr Tyr Val Ser Phe His Val Phe Phe Thr Ala Gly Leu Glu Leu
145                 150                 155                 160
Leu Thr Gly Ile Arg Phe Tyr Gln Met Ile Pro Pro Leu Leu Ala Lys
                165                 170                 175
Leu Ser Gly Leu Arg Thr Gly Ala Met Arg Leu Val Thr Leu Leu Leu
            180                 185                 190
Cys Met Gln Val Cys Ala Leu Arg His Asp Gly Ser Lys
        195                 200                 205
```

<210> 30417

<211> 89
<212> PRT
<213> A.fumigatus

<400> 30417
Ile Asp Cys Thr Asn Ser Tyr Phe Lys His Arg Ser Ile Glu Ser Gln
1 5 10 15
Thr His Gln Ser Ser Gly Pro Ser Leu Ser Ile Pro Ala Tyr His Pro
20 25 30
Phe Asn Leu Gln Thr Thr Pro Gln Thr Pro Ser His Gln Pro Thr Asn
35 40 45
Pro Pro Thr Asn Asn Thr His Pro Pro Ala Ser Thr Thr Thr Ser Ser
50 55 60
Pro Ser Ala Arg Gln Lys Cys Pro Gly Ser Arg Lys Arg Ser Pro Phe
65 70 75 80
Pro Pro Ala Pro Ala Ala Arg Thr Ser
85

<210> 30418
<211> 61
<212> PRT
<213> A.fumigatus

<400> 30418
Ser Gln Arg Lys Arg Ser Gln Ser Thr Arg Pro Ile Tyr Asn Thr Phe
1 5 10 15
Ile Asp Lys Ser Ser Leu Cys Thr Leu Phe Phe Leu Ala Leu Met Leu
20 25 30
Leu Asn Asn Ser Leu His Val Asn Met Leu Val Ile Ile Ala Gln Gly
35 40 45
Glu Val Ile Trp Arg Ile Tyr Arg Arg Arg Arg Ala Ser
50 55 60

<210> 30419
<211> 158
<212> PRT
<213> A.fumigatus

<400> 30419
Leu Val Phe Arg Val Pro Asp Lys Pro Tyr Ser Thr His Arg Leu Leu
1 5 10 15
Ile Gly Thr His Thr Ser Ser Asp Ala Gln Asn Tyr Leu Gln Ile Ala
20 25 30
His Val Gln Leu Pro Asn Pro Ser Ala Pro Asn Pro Asp Asp Tyr Asp
35 40 45
Glu Glu Arg Gly Glu Ile Gly Gly Tyr Gly Gly Ser Ser Lys Lys Ala
50 55 60
Pro Met Glu Ile Lys Phe Asn Ile Val Gln Lys Ile Asp His Lys Gly
65 70 75 80
Glu Val Asn Lys Ala Arg Tyr Gln Pro Gln Asn Pro Asn Ile Ile Ala
85 90 95
Thr Met Cys Thr Asp Gly Arg Val Met Val Trp Asp Arg Ser Lys His
100 105 110
Pro Ser Leu Pro Thr Gly Gln Val Asn Pro Gln Met Glu Leu Ile Gly
115 120 125
His Thr Lys Glu Gly Phe Gly Leu Ser Trp Ser Pro His Thr Ala Gly

```
    130                 135                 140
Gln Leu Ala Thr Gly Ser Glu Asp Lys Thr Val Arg Ile Trp
145                 150                 155

<210> 30420
<211> 86
<212> PRT
<213> A.fumigatus

<400> 30420
Arg Cys Pro Arg Arg Pro Thr Arg Ala Val Cys Ile Ser Ser Ile Leu
1               5                   10                  15
Ser Val Val Arg Leu Phe Asp Thr Asn Phe Leu Cys Ser Leu Phe Gln
            20                  25                  30
His Gly Gly His Thr Asn Arg Ile Ser Asp Phe Ser Trp Asn Leu Asn
        35                  40                  45
Asp Pro Trp Val Leu Cys Ser Ala Ala Glu Asp Asn Leu Leu Gln Val
    50                  55                  60
Trp Lys Val Ala Asp Ala Ile Val Gly Lys Asp Leu Glu Asp Val Pro
65                  70                  75                  80
Thr Glu Glu Leu Glu Pro
                85

<210> 30421
<211> 205
<212> PRT
<213> A.fumigatus

<400> 30421
Leu Asn Ile Trp His Arg Asp Leu Thr Thr Tyr Ser Lys Gly Asn Lys
1               5                   10                  15
Leu Leu Lys Pro Ser Arg Thr Tyr Thr His His Ser Ser Ile Val Asn
            20                  25                  30
Asp Val Gln Tyr His Pro Leu His Ser Ser Leu Ile Gly Thr Val Ser
        35                  40                  45
Asp Asp Ile Thr Leu Gln Ile Leu Asp Ile Arg Glu Ser Glu Thr Thr
    50                  55                  60
Arg Ala Ala Ala Ser Thr Glu Gly Gln His Arg Asp Ala Ile Asn Ala
65                  70                  75                  80
Ile Ala Phe Asn Pro Ala Ala Glu Thr Val Leu Ala Thr Gly Ser Ala
                85                  90                  95
Asp Lys Thr Ile Gly Leu Trp Asp Leu Arg Asn Leu Lys Thr Lys Leu
            100                 105                 110
His Ser Leu Glu Ser His Thr Asp Ser Val Thr Ser Ile Ser Trp His
        115                 120                 125
Pro Phe Glu Glu Ala Val Leu Ala Ser Ala Ser Tyr Asp Arg Lys Ile
    130                 135                 140
Ala Phe Trp Asp Leu Ser Arg Ala Gly Glu Glu Gln Thr Pro Glu Asp
145                 150                 155                 160
Ala Gln Asp Gly Pro Pro Glu Leu Tyr Val Tyr Leu Ala Ser Phe Leu
                165                 170                 175
Leu Phe Val Tyr Ser Ile Leu Ile Ser Tyr Ala Val Ser Ser Ser Thr
            180                 185                 190
Ala Gly Ile Pro Thr Ala Phe Leu Thr Ser Val Gly Ile
        195                 200                 205
```

<210> 30422
<211> 209
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (17)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30422
Ser Arg Ile Phe Phe Leu Ser Trp Met Thr Leu His Val Pro Asp Arg
1 5 10 15
Xaa Ser Pro Thr Phe Thr Ser Pro Leu Cys Val Cys Gly Trp Gly Leu
20 25 30
Val Ala Ser Phe Gln Ser Leu Ala Thr Ser Phe Ser Thr Phe Val Val
35 40 45
Leu Arg Ala Phe Leu Gly Ile Thr Glu Ala Ala Phe Gly Pro Gly Val
50 55 60
Pro Phe Tyr Leu Ser Leu Phe Tyr Lys Arg Glu Glu Leu Ala Leu Arg
65 70 75 80
Asn Gly Leu Phe Ile Ser Ala Ala Pro Leu Ala Thr Ser Phe Ala Ser
85 90 95
Ser Leu Ala Trp Leu Ile Val Lys Val Ser Ser Asn Gly Pro Ile Ala
100 105 110
Pro Trp Arg Thr Leu Phe Leu Val Glu Gly Phe Pro Ser Val Phe Val
115 120 125
Ala Val Phe Ala Trp Ile Leu Ile Pro Asp Ser Pro Glu Ser Ala Arg
130 135 140
Phe Leu Glu Pro Arg Glu Arg Met Val Ala Lys Leu Arg Leu Gly Glu
145 150 155 160
Thr Arg Ser Asp Tyr Cys Gly Pro Asp Ser Arg Lys Phe Asn Trp Arg
165 170 175
Glu Val Ala Lys Ala Leu Ser Asp Pro Lys Ser Tyr Val Thr Ala Val
180 185 190
Arg Gly Ser His Ile Ser Pro Ala Leu Ser Leu Thr Asp Val Gln Leu
195 200 205
Leu

<210> 30423
<211> 246
<212> PRT
<213> A.fumigatus

<400> 30423
Arg Ala Ala Thr Ile Val Tyr Val Leu Gln Leu Gln Cys Arg Phe Gln
1 5 10 15
Leu His Ala Cys Val Pro Ala His His His Arg Arg Val Ser Pro Gly
20 25 30
Met Ser Asn Pro Val Asp Gln Cys Thr His Phe Asn Ser Met Gly Tyr
35 40 45
Ser Ser Leu Ser Ala Gln Ala Leu Cys Ala Pro Pro Tyr Leu Ile Ala
50 55 60
Phe Met Val Val Leu Ala Thr Ala Tyr Leu Ser Asp Arg His Arg Ser
65 70 75 80

```
Arg Ser Pro Tyr Leu Ile Ala His Ala Leu Ile Ser Ser Phe Ala Tyr
                85                  90                  95
Leu Ala Ile Ala Ala Thr Gly Tyr Tyr His Glu His Leu Ser Ala Gly
            100                 105                 110
Val Gln Thr Phe Ile Arg Tyr Ala Cys Val Tyr Pro Ala Thr Ser Gly
        115                 120                 125
Phe Phe Ser Ala Ile Thr Leu Ile Ile Thr Trp Thr Met Asp Asn Arg
    130                 135                 140
Ala Ala Lys Glu Gly Lys Gly Ala Ser Met Ala Ile Leu Asn Leu Ile
145                 150                 155                 160
Gly Gln Cys Gly Pro Leu Leu Gly Thr Arg Leu Tyr Pro Arg Ser Glu
                165                 170                 175
Gly Pro Trp Tyr Val Arg Gly Met Ala Thr Cys Ser Phe Phe Met Val
            180                 185                 190
Val Val Ala Val Leu Ala Ile Val Leu Arg Ala Met Leu Gln Arg Gly
        195                 200                 205
Val Arg Ala Ala Asp Arg Lys Gly Asp Ala Asp Gly Glu Met Glu Thr
    210                 215                 220
Arg Arg Val Leu Met Asp Gly Asn Gln Phe Asn His Ser Val Glu Glu
225                 230                 235                 240
Arg Phe Val Asn Ile Leu
                245
```

<210> 30424
<211> 222
<212> PRT
<213> A.fumigatus

<400> 30424

```
Ile Val Leu Arg Asn His Thr Arg Asn Ser Lys Pro Pro Lys Ala Lys
1               5                   10                  15
Pro Lys Arg Asn Thr Ala Ala Arg Trp Thr Thr Asp Ala Ser Thr Cys
            20                  25                  30
Ala Ser Asn Gln Arg Ser Ala Thr Ser Ser Pro Lys Ser Pro Pro Ala
        35                  40                  45
Ile Ser Asp Cys Thr Ala Ser Ser Pro Pro Gln Gly Ile Asn His Leu
    50                  55                  60
Gln Ser Ala Val Glu His Ser Gln Ser Ala Leu Asn Glu Val Met Gln
65                  70                  75                  80
Ile Asn Tyr Asn Gly Val Phe Asn Ser Ala Thr Ala Ala Ala Arg Gln
                85                  90                  95
Met Phe Asn Tyr Gln Gln Lys Gly Ser Ile Leu Leu Val Ala Ser Met
            100                 105                 110
Ser Gly Leu Ile Ala Asn Lys Gly Met Thr Ser Pro Val Tyr Asn Ser
        115                 120                 125
Ser Lys Ala Ala Val Ile Gln Leu Ala Arg Ser Leu Ala Met Glu Trp
    130                 135                 140
Gly Arg Arg Gly Ile Arg Val Asn Ser Leu Cys Pro Gly His Ile Leu
145                 150                 155                 160
Thr Pro Met Val Glu Leu Val Phe Glu Gln Asn Pro Ala Ala Lys Ala
                165                 170                 175
Thr Trp Glu Ala Glu Asn Met Leu Gly Arg Leu Ala Cys Pro Glu Glu
            180                 185                 190
Phe Arg Gly Ala Ala Leu Phe Ala Leu Ser Asp Ala Ser Ser Phe Met
        195                 200                 205
Thr Gly Ser Thr Met Ile Ile Asp Gly Gly His Thr Ala Trp
```

210 215 220

<210> 30425
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30425
Leu Leu Pro Gly Val Lys Gly Phe Ser Ser Tyr Ile Cys Pro Arg Glu
1 5 10 15
Leu Pro Ser Ser Ala Met Asp Leu Leu Lys Glu Val Ser Ala Trp Gly
20 25 30
Phe Leu Gln Ser Asn Ala Ile Leu Ser Leu Phe Ile Pro Leu Pro Asn
35 40 45
His Ala Ser Lys Gly Leu Pro Val Met Leu Ile Leu Thr Ile
50 55 60

<210> 30426
<211> 119
<212> PRT
<213> A.fumigatus

<400> 30426
Gln Arg Gly Thr Phe His Pro Arg Arg Glu Asp Ser Glu Val Asn Lys
1 5 10 15
Tyr Thr His Thr Pro Val Asn Ala Val Trp Phe Val Val Leu Phe Ser
20 25 30
Ile Gly Leu Asn Cys Ile Ala Ile Gly Ser Thr Gln Thr Ala Thr Ala
35 40 45
Ile Phe Ser Ile Thr Ala Pro Ala Leu Asp Ile Ser Tyr Val Ser Val
50 55 60
Ile Leu Ala His Arg Leu Tyr Lys Asp Lys Val Lys Phe Val Glu Gly
65 70 75 80
Pro Phe Thr Leu Gly Lys Trp Gly Ala Ala Ile Asn Trp Val Ser Ile
85 90 95
Val Trp Val Leu Phe Ile Ser Thr Val Leu Phe Phe Pro Pro Thr Val
100 105 110
Pro Val Thr Ala Ser Asn Met
115

<210> 30427
<211> 566
<212> PRT
<213> A.fumigatus

<400> 30427
Phe Arg Val Leu Leu Leu Thr Glu Asn Leu His Lys Glu Arg Pro Ser
1 5 10 15
Asp Ser Lys Asn Glu His His Arg Glu Thr Leu Gly Ser Met Ile Trp
20 25 30
Gln Trp Tyr Glu Glu Arg Lys Asp Gly Val Ala Leu Glu Lys Ala Pro
35 40 45
Gly Gly Asp Leu Leu Glu Gln Val His Ser Gly Gly Arg Glu Leu Ser
50 55 60
Trp Thr Asp Val Arg Arg Lys Pro Leu Asp Pro Gly Glu Gln Leu Ile
65 70 75 80

```
Tyr Gln Gln Tyr Leu Ala Thr Lys Arg Gln Leu Gln Asp Ala Ser Gln
                85                  90                  95
Thr Arg Gly Gln Glu Asn Leu Glu Asn Pro Thr Asp Val Leu Asp Asp
            100                 105                 110
Arg Ser Ser Ser Thr Ser Glu Asp Ser Glu Thr Glu Gln Gln Gly Arg
        115                 120                 125
Val Leu Asn Phe Ser Thr Ser Leu Ala His Ala Asn Arg Asn Lys Leu
    130                 135                 140
Gly Leu Ser Asp Glu Asp Leu Gly Val Asn Ile Leu Leu Arg Arg Lys
145                 150                 155                 160
Asn Val Tyr Asp Tyr Asp Val Arg Gly Lys Lys Gly Arg Glu Arg Met
                165                 170                 175
Phe Pro Tyr Val Ala Pro Arg Lys Arg Gly Asp Glu Tyr Gly Glu Phe
            180                 185                 190
Ile Arg Pro Glu Glu Tyr Leu Arg Ala Glu Glu Arg Glu Glu Ala Asp
        195                 200                 205
Met Gln Gln Arg Arg Ser Glu Ala Gln Thr Lys Leu Gly Gln Lys Arg
    210                 215                 220
Arg Trp Asp Glu Ala Gly Pro His Gly Arg Arg Ala Ser His Ser Gly
225                 230                 235                 240
Ala Lys Arg Gln Gln Val Ala Gly Asp Ala His Lys Arg Glu Ala Gly
                245                 250                 255
Gly Ala Asp Asp Leu Ser Thr Thr Glu Asp Ala Asp Gly Gly Asp Ala
            260                 265                 270
Ala Ile Ser Ser Glu Asp Glu Ala Asp Glu Gln Ser Phe Glu Gly Pro
        275                 280                 285
Ala Lys Ala Val Phe Glu Lys Ser Thr Ile Thr Ile Asn Ala Arg Leu
    290                 295                 300
Ala Phe Val Asp Phe Thr Gly Leu His Asp Lys Arg Ser Leu Glu Met
305                 310                 315                 320
Leu Ile Pro Leu Ile Gln Pro Arg Lys Leu Ile Leu Val Gly Gly Met
                325                 330                 335
Lys Glu Glu Thr Thr Ala Leu Ala Thr Glu Cys Lys Lys Leu Leu Ala
            340                 345                 350
Ala Lys Ala Gly Val Asp Val Ser Ser Pro Asp Ser Ala Leu Ile Phe
        355                 360                 365
Thr Pro Thr Asn Gly Glu Thr Val Asp Ala Ser Val Asp Thr Ser Ala
    370                 375                 380
Trp Met Val Lys Leu Ser Thr Asn Leu Val Arg Arg Leu Lys Trp Gln
385                 390                 395                 400
His Val Arg Ser Leu Gly Val Val Thr Leu Thr Ala Gln Leu Arg Gly
                405                 410                 415
Pro Glu Leu Asn Pro Lys Glu Glu Ser Glu Glu Ser Ala Ser Lys Lys
            420                 425                 430
Gln Lys Val Leu Gln Asp Glu Ala Ser Ser Ala Ala Thr Ser Thr Leu
        435                 440                 445
Gly Glu Thr Lys Pro Ala Val Asp Lys Ser Asp Val Phe Pro Val Leu
    450                 455                 460
Asp Val Leu Pro Ala Asn Met Ala Ala Gly Thr Arg Ser Met Thr Arg
465                 470                 475                 480
Pro Leu His Val Gly Asp Phe Arg Leu Ala Asp Leu Arg Lys Val Met
                485                 490                 495
Gln Ser Ala Gly His Lys Ala Glu Phe Arg Gly Glu Gly Thr Leu Leu
            500                 505                 510
Ile Asp Gly Met Val Ala Val Arg Lys Ser Gly Thr Gly Arg Ile Glu
        515                 520                 525
```

```
Ile Glu Ala Ser Ala Gln Ser Ser Thr Met Asn Gln Ala Thr Gly Arg
    530                 535                 540
Gly Val Ala Ser Phe Leu Ala Val Lys Arg Lys Ile Tyr Asp Gly Leu
545                 550                 555                 560
Ala Val Val Ala Gly Ser
                565
```

<210> 30428
<211> 68
<212> PRT
<213> A.fumigatus

<400> 30428
```
Arg Ser Ala Ile Thr Ser Leu Arg Asp Gly Ser Tyr Lys Ile His Ser
1               5                   10                  15
Asn Leu Asn Gln Thr Lys Tyr Val Asp Arg Ser Thr His Asn Phe Thr
            20                  25                  30
Glu Pro Asn Ala Val Leu Leu Asn Leu Arg Leu Asn Pro Pro Ser Glu
        35                  40                  45
Pro Leu Val Tyr Thr Arg Ser Ser Ala Asp Gln Tyr Ile Ser Tyr Arg
    50                  55                  60
Gln Gln Lys Arg
65
```

<210> 30429
<211> 199
<212> PRT
<213> A.fumigatus

<400> 30429
```
Ile Ile Ala Ile Ile Phe His His His Ser Ser His His His Arg Phe
1               5                   10                  15
Gly Thr His Ile Ser Val Met Ala Phe Phe Leu Arg Arg Pro Phe Ala
            20                  25                  30
Val Pro Thr Ala Leu Arg Gln Ala Pro Lys Ala Ala Asn Thr Ala Arg
        35                  40                  45
Phe Ile His Asn Ser Pro Ile Lys Pro Val Gln Ser Lys Pro Leu Gly
    50                  55                  60
Pro Cys Ser Ser Ser Ile Phe Ala Gln Ser Lys Gln Thr Ile Gln Asn
65                  70                  75                  80
Ala Phe Arg Arg Thr Tyr Met Gln Gln Ser Tyr Gly Thr Ala Gln Arg
                85                  90                  95
Gly Asp Leu Thr Gln Arg Leu Leu Tyr Gly Ala Ala Ile Val Gly Gly
            100                 105                 110
Thr Val Met Ala Thr Asn Phe Ile Phe Asn Arg Glu Thr Arg Glu Asp
        115                 120                 125
Gly Gly Met Pro His Tyr Glu Arg Ser Tyr Leu Asn Glu Thr Phe Met
    130                 135                 140
His Thr Gly Leu Gly Val Gly Ile Ile Gly Ile Ala Ala Arg Ala Leu
145                 150                 155                 160
His Met Asn Gly Trp Ser Tyr Arg Leu Met Ala Thr Asn Pro Trp Leu
                165                 170                 175
Val Ala Gly Val Gly Leu Ala Ala Ser Met Gly Thr Met Phe Ala Thr
            180                 185                 190
Tyr Tyr Thr Ser Pro Asp Lys
        195
```

<210> 30430
<211> 164
<212> PRT
<213> A.fumigatus

<400> 30430
Arg Val Phe Ser Tyr Val Met Lys Tyr Gly Leu Trp Ala Ala Phe Asn
1 5 10 15
Val Thr Gln Ala Ala Leu Leu Ser Pro Leu Met Phe Met His Pro Ala
20 25 30
Leu Leu Ala Arg Ala Gly Leu Tyr Thr Val Gly Met Met Gly Ser Ile
35 40 45
Ala Phe Val Gly Ala Thr Ala Lys Gln Glu Lys Tyr Leu Tyr Leu Gly
50 55 60
Gly Pro Leu Leu Ala Gly Val Thr Ile Val Ala Leu Ser Gly Leu Ala
65 70 75 80
Pro Leu Val Ile Pro Ala Thr Ala Ala Arg Ala Leu Met Trp Ser Glu
85 90 95
Lys Ile Trp Leu Tyr Gly Gly Leu Ala Val Phe Gly Gly Phe Thr Leu
100 105 110
Tyr Asp Val Gln Lys Ile Leu His His Ala Arg Leu Ala Glu Arg Gly
115 120 125
Leu Val Arg Arg Asp Val Val Asn Glu Ser Ile Ser Leu Glu Leu Asp
130 135 140
Phe Ile Asn Ile Phe Val Arg Met Val Gln Ile Leu Ala Met Gln Arg
145 150 155 160
Asn Asn Arg Lys

<210> 30431
<211> 91
<212> PRT
<213> A.fumigatus

<400> 30431
Ala Glu Asp Asn Gly Met Gly Ile Gln Ser Pro Gly Ile Leu Val Ser
1 5 10 15
Thr Thr Gly Ile Ile Arg Thr Arg Tyr Thr Tyr Thr Arg Ala Phe Gln
20 25 30
Ala Val Leu Phe Glu Pro Asp Phe Leu Gln Gly Val Lys Asp Gln Ala
35 40 45
Phe Ala Gln Ile Arg Arg Ile Gly Gln Ser Ser Pro Gln Thr Thr Cys
50 55 60
Ile Arg Phe Val Val Pro Gly Met Gln Tyr Lys Gln Gln Val Phe Thr
65 70 75 80
Arg Gln Glu His Arg Arg Gln Leu Lys Arg Ala
85 90

<210> 30432
<211> 208
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE

<222> (178)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30432
Ile Ala Thr Asp Val Ser Phe Asp Arg Tyr Cys Phe Pro Val Ile Ser
1 5 10 15
Ile Asp Asp Asp Arg Arg His Ala Asp Pro Val Pro Phe Ser Pro Gly
20 25 30
Gly Arg Arg Asp Arg Pro Cys Leu Arg Phe Trp Trp Gln Gln Leu Gly
35 40 45
Ser Gly Leu Leu Ser Arg Gln Arg Cys Pro Ala Glu Ala Gln Ser Asp
50 55 60
Arg Lys Val Gly Leu Val Thr Gly Val Lys Trp Met Gly Gly Pro Cys
65 70 75 80
Val Gly Asn Thr Tyr Lys Pro Glu Ser Ile Asp Tyr Pro Ser Leu Cys
85 90 95
Leu Gln Asp Ser Pro Leu Gly Ile Arg Phe Ala Asn Pro Val Thr Ala
100 105 110
Phe Pro Ala Gly Ile Asn Ala Gly Ala Thr Trp Asp Thr Gln Leu Leu
115 120 125
Tyr Ala Arg Gly Ala Ala Met Gly Ala Glu Ala Lys Gly Leu Gly Ile
130 135 140
His Val Gln Leu Gly Pro Val Ala Gly Pro Leu Gly Lys Asn Pro Asn
145 150 155 160
Gly Gly Arg Asn Trp Glu Gly Phe Ser Val Asp Pro Tyr Leu Ser Gly
165 170 175
Val Xaa Met Glu Lys Thr Ile Arg Gly Met Gln Asp Ser Gly Val Gln
180 185 190
Ala Cys Ala Lys Val Cys Ser Pro Arg Gln Gln Lys Glu Ala Ser Cys
195 200 205

<210> 30433
<211> 100
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (82)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30433
His Trp Leu Gly Asn Glu Gln Glu His Tyr Arg Asp Thr Ile Ser Ser
1 5 10 15
Asn Ile Gly Asp Arg Ala Ala His Glu Leu Tyr Val Trp Pro Phe Met
20 25 30
Asp Ala Val Lys Ala Gly Val Ala Ser Val Met Cys Ser Tyr Asn Lys
35 40 45
Val Asn Gly Thr Trp Ala Cys Gln Ser Asp Ala Leu Asn Asn Lys Leu
50 55 60
Met Asn Glu Glu Leu Gly Phe Pro Gly Tyr Ile Met Thr Asp Trp Asn
65 70 75 80
Ala Xaa His Ser Thr Val Asn Ser Ala Val Val Gly Ile Gly Leu Glu
85 90 95
His Ala Gly Gln
100

<210> 30434
<211> 86
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (25),(81)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30434
Glu Arg Ile Gly Tyr Thr Asp Thr Met Lys Thr Phe Ala Ile Leu Gly
1 5 10 15
Ala Phe Phe Ser Ser Ala Leu Ala Xaa Thr Leu Cys Asp Gln Tyr Ala
20 25 30
Thr Tyr Ser Asn Gly Arg Tyr Thr Val Asn Asn Asn Leu Trp Gly Met
35 40 45
Ser Ser Gly Ser Gly Ser Gln Cys Thr Tyr Val His Ser Ile Ser His
50 55 60
Ser Gly Leu Thr Leu Ala Tyr Asp Leu Gly Arg Gly Pro Gly Gly Arg
65 70 75 80
Xaa Pro Ser Ser Lys Thr
85

<210> 30435
<211> 99
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (88)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30435
Gln Gly Arg Tyr Arg Ile Asp Ser Ser His Gln Asn Asp Glu Lys Glu
1 5 10 15
Leu Met Glu Trp Arg Met Gln Glu His Gly Gly Ile Asp Leu Ile Phe
20 25 30
His Thr Asn Leu Phe Ser Ser Lys Thr Met Asp Leu Ala Val His Pro
35 40 45
Ser Glu Val Asn Met Ser Phe Leu Asp Pro Val Ser Gly Ser Trp Ala
50 55 60
Ser Ile Ser Gly Thr Ala Ala Leu Val Ala Glu Gln Glu Thr Val Lys
65 70 75 80
Arg Tyr Tyr Ser Pro Ala Leu Xaa Ala Trp Leu Gly Asp Leu Gly Gln
85 90 95
Gly Val His

<210> 30436
<211> 95
<212> PRT
<213> A.fumigatus

<400> 30436
Thr Thr Asp Ile Asp Ile Ser Pro Cys Leu Ser Val Gln Tyr Thr Met
1 5 10 15
Ser Ser Thr Ile Asn Thr Ser Thr Gly Asn Lys Pro Val Asp Pro Tyr
20 25 30
Lys Ala Lys Ser Leu Glu Asp Pro Pro Leu Gln Gln Lys Val Glu Asp
35 40 45
Met Val Asn Phe Ile Ser Glu Thr Lys Phe Gly Met Leu Thr Thr Lys
50 55 60
Leu Ser Asn Ser Asp Leu Leu Thr Ser Arg Cys Met Ala Pro Ser Arg
65 70 75 80
Glu Gly Thr Val Leu Ile Leu Pro Thr Lys Met Met Lys Lys Ser
85 90 95

<210> 30437
<211> 186
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (182),(183)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30437
Ser Ser Ser Thr Asn Asp Asp Val Tyr Pro Thr Ala Leu Tyr Arg Ser
1 5 10 15
Ile Ser Gly Thr Gly Cys Gly Ala Thr Gly Arg Met Met Ala Ser Thr
20 25 30
Asp Arg Pro Ala Ser Arg Ser Pro Ser Arg Ile His Ile Pro Asn Ser
35 40 45
Ser Phe Ser Thr Ala Asp Arg Cys Ala Cys Asn Cys Ala Ser Cys Thr
50 55 60
Thr Leu Ser Ala Leu Pro Arg Phe Thr Arg Pro Cys Ser His Gly Ile
65 70 75 80
Asn Gly Ser Pro Val Pro Ser Ser Arg Ser Ser Ile Val Asp Pro Ser
85 90 95
Ser Thr Pro Ile Ser Arg Pro Ala Arg Pro Trp His Leu Asp Ser Ala
100 105 110
Gly Gly Thr Gly Met Ser Thr Thr Ser Thr Pro Ala Val Arg Arg Ser
115 120 125
Ile Cys Ala Thr Ser Ser Ser Thr Leu Ala Thr Gly Gly Ser Gly Cys
130 135 140
Thr Thr Pro Ser Asp Leu Ser Thr Pro Ile Val Thr Phe Leu Leu Arg
145 150 155 160
Pro Glu Arg Gly Asn Ser Pro Ser His Asn Val Phe Thr Pro Arg Pro
165 170 175
Lys Asp Arg Ala Cys Xaa Xaa Pro Pro Pro
180 185

<210> 30438
<211> 97
<212> PRT
<213> A.fumigatus

<400> 30438

```
Ser Asn Asn Pro Ser Ser Ala Glu Arg Ser Glu Pro Arg Pro Val Gly
1               5                  10                  15
Pro Lys Thr Pro Trp Lys Cys Gly Glu Val Gly Val Thr Thr Ile Asn
            20                  25                  30
Ile Glu Ser Cys Arg Leu Asn Thr Phe Gly Thr Asp Ile Thr Thr Tyr
        35                  40                  45
Leu Ser Ser Ile Gly Ile Lys Met Ser Ala Glu Glu Gln Val Arg Leu
    50                  55                  60
Asp Asn Phe Asp Ser Ile Phe Ser Leu Asp Gly Lys Val Ala Val Val
65                  70                  75                  80
Thr Gly Gly Ser Arg Gly Leu Gly Leu His Ala Ala Ser Gly Tyr Val
                85                  90                  95
Tyr
```

<210> 30439
<211> 141
<212> PRT
<213> A.fumigatus

```
<400> 30439
Ala Met Val Arg Phe Ala Pro Leu Leu Thr Ala Lys Ala Thr Arg Glu
1               5                  10                  15
Ser Pro Ser Arg Val Ile Val Thr Gly Ser Val Ala Gly Ile Gly Val
            20                  25                  30
Gly Ser Ile Gly Glu Asn Ala Thr Phe Ala Tyr Ser Ala Ser Lys Ala
        35                  40                  45
Ala Val Ile His Leu Ala Lys Asn Leu Ala Val Glu Leu Gly Pro Arg
    50                  55                  60
Gly Ile Leu Cys Asn Ala Ile Ala Pro Gly Phe Tyr Pro Ser Lys Met
65                  70                  75                  80
Ala Asn Gly Leu Ile Glu Lys Gln Gly Gly Leu Lys Gln Leu Glu Glu
                85                  90                  95
His Ser Pro Asn Arg Arg Leu Gly Arg Pro Glu Asp Ile Ala Gly Leu
            100                 105                 110
Val Val Phe Leu Ser Ser Arg Ala Ala Ser His Leu Asn Gly Ala Val
        115                 120                 125
Ile Val Thr Asp Gly Gly Ala Val Leu Lys Gly Arg Leu
    130                 135                 140
```

<210> 30440
<211> 157
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (154),(155)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 30440
Trp Arg Arg Pro Thr Gly Arg Pro Ala Gly Arg His Arg Ala Ser Thr
1               5                  10                  15
Ser Pro Thr Ala Pro Phe Pro Pro Gln Thr Ala Ala Pro Ala Thr Ala
            20                  25                  30
Pro Ala Ala Pro Arg Ser Ala Pro Cys Arg Ala Ser Arg Gly Pro Ala
```

```
        35                  40                  45
Ala Thr Gly Ser Thr Ala Pro Pro Cys Pro Pro Ala Asp Pro Ala Leu
    50                  55                  60
Ser Thr His His Arg Arg Pro Ser Ala Gly Pro Pro Asp Pro Gly Thr
65                  70                  75                  80
Trp Thr Ala Pro Ala Gly Arg Gly Cys Gln Pro Pro Arg Arg Pro Pro
                85                  90                  95
Ser Gly Ala Ala Ser Ala Pro Pro Pro Pro Ala Pro Ser Pro Pro Ala
            100                 105                 110
Ala Ala Ala Ala Arg Arg His Pro Thr Ser Ala Pro Gln Ser Ser Arg
        115                 120                 125
Phe Ser Ser Gly Pro Asn Gly Gly Thr Pro Arg Pro Thr Thr Ser Ser
    130                 135                 140
Pro His Gly Arg Arg Thr Glu His Ala Xaa Xaa Pro Pro
145                 150                 155
```

<210> 30441
<211> 178
<212> PRT
<213> A.fumigatus

<400> 30441

```
Pro Leu Arg Cys Ile Leu Thr Ala Ser Ser Leu Leu Gln Ala Gly Cys
1               5                   10                  15
Ser Lys Val Tyr Ile Thr Ser Arg Lys Ala Lys Ala Cys Asp Glu Ala
            20                  25                  30
Val Ala Ala Leu Asn Ala Leu Pro Asn Lys Arg Pro Gly Ala Val Ala
        35                  40                  45
Ile Ala Val Pro Ala Asp Asn Ala Arg Met Asp Asp Leu Asp Arg Leu
    50                  55                  60
Val Ala Glu Val Lys Lys Thr Thr Asp His Val Asp Ile Leu Phe Ala
65                  70                  75                  80
Asn Ala Gly Ala Thr Trp Gly Glu Arg Phe Glu Lys Tyr Pro Glu Ser
                85                  90                  95
Ala Phe Ser Lys Val Met Asp Leu Asn Val Lys Ser Val Phe Tyr Leu
            100                 105                 110
Val Gln Lys Tyr Val Pro Ile Ser Phe Trp Cys Ile Ser Thr Leu Thr
        115                 120                 125
Glu Leu Trp Leu Gly Leu Pro Pro Tyr Ser Arg Pro Lys Gln Pro Val
    130                 135                 140
Ser Arg Pro Arg Ala Ser Ser Ser Leu Val Pro Ser Leu Ala Leu Gly
145                 150                 155                 160
Ser Ala Leu Ser Ala Lys Met Pro Pro Leu Arg Thr Pro Pro Pro Lys
                165                 170                 175
Gln Pro
```

<210> 30442
<211> 69
<212> PRT
<213> A.fumigatus

<400> 30442

```
Val Ile Pro Phe Phe Leu Leu Leu Lys Ser Ser Pro Leu Ile Trp His
1               5                   10                  15
Ile Gly Asn Glu Lys Thr Val Asp Arg Arg Val Tyr Leu Asp Ser Pro
```

```
            20                  25                  30
Leu Ser Ile Gln Val Val Thr Pro Lys Gln His Asp Tyr Glu Leu Tyr
        35                  40                  45
Arg Ala Met Glu Ile Ile Asp Arg Val Val Arg Ala Glu Glu His Lys
    50                  55                  60
Thr Val Ala Lys Leu
65
```

<210> 30443
<211> 237
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (4),(5)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30443

```
Gly Gly Gly Xaa Xaa His Ala Arg Ser Phe Gly Arg Gly Val Lys Thr
1               5                   10                  15
Leu Trp Asp Gly Glu Phe Pro Arg Ser Gly Arg Arg Arg Asn Val Thr
            20                  25                  30
Ile Gly Val Leu Arg Ser Asp Gly Val Val Gln Pro Leu Pro Pro Val
        35                  40                  45
Ala Arg Val Leu Glu Glu Val Ala Gln Met Leu Arg Arg Thr Ala Gly
    50                  55                  60
Val Glu Val Val Asp Ile Pro Val Pro Pro Ala Leu Ser Lys Cys Gln
65                  70                  75                  80
Gly Leu Ala Gly Arg Leu Met Gly Val Asp Asp Gly Ser Thr Met Leu
                85                  90                  95
Asp Leu Leu Glu Gly Thr Gly Glu Pro Leu Ile Pro Trp Leu Gln Gly
            100                 105                 110
Arg Val Lys Arg Gly Lys Ala Leu Ser Val Val Gln Leu Ala Gln Leu
        115                 120                 125
Gln Ala Gln Arg Ser Ala Val Glu Lys Glu Leu Leu Gly Met Trp Met
    130                 135                 140
Arg Asp Gly Asp Arg Leu Ala Gly Arg Ser Val Asp Ala Ile Ile Leu
145                 150                 155                 160
Pro Val Ala Pro His Pro Val Pro Glu Ile Asp Arg Tyr Asn Ala Val
                165                 170                 175
Gly Tyr Thr Ser Ser Phe Val Leu Leu Asp Tyr Pro Ala Gly Val Ile
            180                 185                 190
Pro Val Arg Lys Phe Arg Glu Thr Asp Leu Glu Leu Gly Gln Glu Met
        195                 200                 205
Thr Ala Pro Val Leu Gly Ser Trp Asp Lys Ala Asn Arg Leu Leu Cys
    210                 215                 220
Lys Ser Ser Leu Ser Ser Ser Cys Ser Arg Val Pro His
225                 230                 235
```

<210> 30444
<211> 66
<212> PRT
<213> A.fumigatus

<400> 30444

```
Asn Asn His Ile Ser Thr Cys Glu Leu Ile Ser Arg Gln Asn Asn Ser
1               5                  10                  15
Leu Ser Phe Leu Asn Ser Gly Asn Tyr Gly Gly Leu Phe Val Glu His
            20                  25                  30
Val Pro Thr Asp Thr Gly Thr Ser Arg Asn Gly Tyr Lys Gln Pro Ser
        35                  40                  45
Arg His Leu Ala Glu Met Leu Trp Thr Ala Thr His Arg Ile Gln Leu
    50                  55                  60
Cys Leu
65
```

<210> 30445
<211> 383
<212> PRT
<213> A.fumigatus

<400> 30445

```
Cys Ala Asp Leu Gly Leu Leu Gly Ala Met Phe Ser Lys Thr Ile Arg
1               5                  10                  15
Asn Val Asn Trp Asp Val Pro Ile Gln Phe Phe Gly Gly His Tyr His
            20                  25                  30
Ile Arg Asp Tyr Ala Arg Tyr Asp Ser Lys Ala Tyr Gly Leu Ala Ser
        35                  40                  45
Gly Arg Phe Met Glu Thr Ile Gly Phe Leu Ser Ile Asp Gly Leu Ser
    50                  55                  60
Thr Ser Lys Asn Arg Leu Lys Pro Ala Gln Ala Thr Pro Ser Phe Asn
65                  70                  75                  80
Arg Arg Tyr Ile Asp Asn Asn Leu Tyr Ser Phe His His His Thr Gly
                85                  90                  95
His Asp Arg Asp Ser Phe Pro Thr Glu His Gly Pro Asn Ile Ser His
            100                 105                 110
Leu Ile Gln Gln Ser Arg Asp Ala Leu Asp Leu Asp Arg Val His Gly
        115                 120                 125
Cys Ala Pro Arg Asp Leu Trp Met Thr Arg Val Lys Tyr Pro Ser His
    130                 135                 140
Asp Ser Ile Tyr Thr Trp Leu Glu Glu Asn Val Leu Pro Ser Gln Val
145                 150                 155                 160
Lys Asp Asp Ser Arg Lys Gly Lys Pro Ala Leu Val Ile Val Asn Thr
                165                 170                 175
Gly Ala Ile Arg Phe Asp Ile Phe Lys Gly Pro Phe Thr Gln Asp Thr
            180                 185                 190
Thr Phe Ile Val Ser Pro Phe Thr Ser Gly Phe Arg Tyr Ile Lys Asp
        195                 200                 205
Ile Pro Tyr Asp Lys Ala Gln Thr Val Val Asp Ile Leu Asn Lys Gln
    210                 215                 220
Pro Gln Ile Leu Thr Ala Pro Lys Asp His Thr Asn His Thr Pro Trp
225                 230                 235                 240
Thr Leu Ala Pro Pro Glu Gln Ser Met His Met His Asp Lys Ile Val
                245                 250                 255
Glu Ser Asp Asp Val Ala Ala His Tyr Leu Thr Asp Gln Ser Arg Leu
            260                 265                 270
Pro Met Ser Thr Pro Phe Thr Pro Lys Val Phe Pro Gly Tyr Thr Thr
        275                 280                 285
Val Asp Asp Gly Gly Ile Asp Gly Asp Asp Thr Val His Ser Pro Ile
    290                 295                 300
Ser Phe Tyr Arg Val Pro Asn Cys Ile Gln Ala Leu Ile Asn Pro Gly
```

```
305                 310                 315                 320
Thr Ser Ala Asp Pro Asn Thr Val Asp Leu Val Tyr Ile Asp Phe Ile
                325                 330                 335
Glu Pro Tyr Val Ala Leu Ala Ala Lys Phe Ala Arg Leu Asp Leu Asp
            340                 345                 350
Phe Ala Arg Asp Ser Asp Val Tyr Met Pro Phe Glu Thr Leu Thr Asp
        355                 360                 365
Leu Ile Leu Asp Trp Val Lys His Asn Trp Lys Cys Glu Asp Ala
    370                 375                 380
```

<210> 30446
<211> 355
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (90)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30446

```
Pro Asp Leu Phe Ser Pro Ser Ser Arg Leu His Lys His Ser Ile Ser
1               5                   10                  15
Pro Pro His Gly Thr Gln Val Thr Leu Arg Leu Leu Ala Ala Pro Leu
            20                  25                  30
Asn Pro Ala Asp Val Asn Gln Ile Gln Gly Val Tyr Pro Ser Lys Pro
        35                  40                  45
Pro Phe Gln Thr Thr Leu Gly Thr Met Glu Pro Ser Ala Val Ala Gly
    50                  55                  60
Asn Glu Gly Ala Phe Glu Val Ile Ala Thr Gly Ser Asn Val Lys Asn
65                  70                  75                  80
Leu Ala Lys Gly Asp Trp Val Val Met Xaa Gln Thr Gly Gln Gly Thr
                85                  90                  95
Trp Arg Thr His Ala Gln Leu Asp Glu Ser Gln Val Ile Arg Ile Glu
            100                 105                 110
Asn Lys Glu Gly Leu Ser Pro Leu Gln Val Ser Thr Val Ser Val Asn
        115                 120                 125
Pro Val Thr Ala Tyr Arg Met Ile Lys Asp Phe Cys Asp Trp Asp Trp
    130                 135                 140
Met Arg Ala Gly Glu Glu Trp Leu Ile Gln Asn Gly Ala Asn Ser Gly
145                 150                 155                 160
Val Gly Arg Ala Ala Ile Gln Leu Ala Arg Glu Trp Gly Ile Lys Thr
                165                 170                 175
Ile Asn Val Val Arg Glu Arg Arg Thr Pro Glu Glu Thr Asp Ala Leu
            180                 185                 190
Lys Arg Glu Leu Tyr Asp Leu Gly Ala Asn Ala Val Val Thr Glu Ser
        195                 200                 205
Glu Leu Leu Ser Gly Glu Phe Lys Ser Met Val Asn Glu Phe Thr Arg
    210                 215                 220
Gln Gly Lys Glu Pro Ile Arg Leu Ala Leu Asn Cys Val Gly Gly Lys
225                 230                 235                 240
Ser Ala Thr Ala Leu Ala Lys Thr Leu Ala Pro Gly Ser His Leu Val
                245                 250                 255
Thr Tyr Gly Ala Met Ser Lys Gln Pro Val Thr Leu Pro Ser Gly Leu
            260                 265                 270
Leu Ile Phe Lys Asn Leu Val Phe Asp Gly Phe Trp Val Ser Arg Trp
```

```
        275                 280                 285
Gly Asp Lys His Pro Glu Leu Lys Glu Asn Thr Ile Asn Asp Val Leu
    290                 295                 300
Lys Leu Thr Arg Ala Gly Arg Phe Lys Asp Ile Pro Val Glu Tyr Ile
305                 310                 315                 320
Arg Trp Thr Trp Glu Thr Glu Ala Ala Glu Leu Val Ala Gly Val Gln
                325                 330                 335
Glu Thr Leu Ser Gly Phe Arg Lys Gly Lys Gly Leu Leu Lys Tyr Glu
            340                 345                 350
Gly Asp Glu
        355
```

<210> 30447
<211> 298
<212> PRT
<213> A.fumigatus

<400> 30447

```
Cys Arg Leu Asp Ala Val Leu Leu Pro Arg Gly Glu Asp His Val Gln
1               5                   10                  15
Lys Ile Asp Arg Lys Lys Leu Gly Ile Asp Val Ser Thr Ile Glu Gln
            20                  25                  30
Glu Leu Ser Glu Gln Ala Ala Gly Asp Ala Glu Gln Thr Arg Arg Leu
        35                  40                  45
Thr Ala Glu Glu Glu Glu Lys Ile Lys Arg Thr Ala Thr Arg Pro Asp
    50                  55                  60
Leu Tyr Glu Leu Leu Ser Arg Ser Leu Ala Pro Ser Ile Tyr Glu Met
65                  70                  75                  80
Asp Asp Val Lys Lys Gly Ile Leu Leu Gln Leu Phe Gly Gly Thr Asn
                85                  90                  95
Lys Thr Phe Gln Lys Gly Gly Asn Pro Arg Tyr Arg Gly Asp Ile Asn
            100                 105                 110
Ile Leu Leu Cys Gly Asp Pro Ser Thr Ser Lys Ser Gln Leu Leu Arg
        115                 120                 125
Tyr Val His Lys Ile Ala Pro Arg Gly Val Tyr Thr Ser Gly Lys Gly
    130                 135                 140
Ser Ser Ala Val Gly Leu Thr Ala Tyr Val Thr Arg Asp Pro Glu Thr
145                 150                 155                 160
Arg Gln Met Val Leu Glu Ser Gly Ala Leu Val Leu Ser Asp Gly Gly
                165                 170                 175
Ile Cys Cys Ile Asp Glu Phe Asp Lys Met Asn Glu Ser Thr Arg Ser
            180                 185                 190
Val Leu His Glu Val Met Glu Gln Gln Thr Val Ser Ile Ala Lys Ala
        195                 200                 205
Gly Ile Ile Thr Thr Leu Asn Ala Arg Thr Ser Ile Leu Ala Ser Ala
    210                 215                 220
Asn Pro Ile Gly Ser Arg Tyr Asn Pro Asn Leu Pro Val Pro Gln Asn
225                 230                 235                 240
Ile Asp Leu Pro Pro Thr Leu Leu Ser Arg Phe Asp Leu Val Tyr Leu
                245                 250                 255
Val Leu Asp Arg Val Asp Glu Gln Glu Asp Arg Arg Leu Ala Lys His
            260                 265                 270
Leu Val Asn Met Tyr Leu Glu Asp Arg Pro Glu His Ala Ala Glu Gln
        275                 280                 285
Glu Ile Leu Val Ser Ala Phe Leu Thr Thr
    290                 295
```

<210> 30448
<211> 206
<212> PRT
<213> A.fumigatus

<400> 30448
Pro Val His Ser Leu Gln Pro Ile Glu Phe Leu Thr Ala Tyr Ile Thr
1 5 10 15
Tyr Ala Lys Thr Lys Val His Pro Val Leu Thr Pro Ala Ala Gly Lys
20 25 30
Ala Leu Ser Asp Ala Tyr Val Asn Met Arg Lys Leu Gly Asp Asp Ile
35 40 45
Arg Ser Ser Asp Arg Arg Ile Thr Ala Thr Thr Arg Gln Leu Glu Ser
50 55 60
Met Ile Arg Leu Ser Glu Ala His Ala Arg Met Arg Leu Ser Pro Glu
65 70 75 80
Val Thr Ala Asp Asp Val Glu Glu Ala Val Arg Leu Ile Arg Ser Ala
85 90 95
Ile Lys Gln Ala Ala Thr Asp Ser Arg Thr Gly Leu Ile Asp Met Ser
100 105 110
Leu Leu Thr Glu Gly Thr Ser Ala Ser Glu Arg Arg Ser Arg Glu Ala
115 120 125
Leu Lys Arg Ala Leu Leu Ser Val Val Asp Asp Leu Cys Ser Gly Gly
130 135 140
Gly Ala Ala Arg Trp Ala Glu Val Phe Arg Ile Leu Ser Glu Asn Ser
145 150 155 160
Ser Ile Glu Val Asp Gly Ala Gln Phe Ala Asp Ala Val Arg Ala Leu
165 170 175
Glu Ala Glu Gly Ala Val Ser Val Val Gly Glu Gly Ala Pro Ala Gly
180 185 190
Ile Ser Gly Ala Leu Ala Ala Leu Phe Cys Arg Pro Val Leu
195 200 205

<210> 30449
<211> 130
<212> PRT
<213> A.fumigatus

<400> 30449
Pro Asn Lys Leu Tyr Ala Ile Leu Thr Pro Leu Gln Gln Pro Val Tyr
1 5 10 15
Tyr Thr Ser Ser Asp Ser Ser Leu Asp Val Trp Thr Ile Ile Ala Ala
20 25 30
Thr Ser Glu Asp Ala Thr Val Asp Phe Thr Asp Thr Gly Asp Lys Thr
35 40 45
Cys Leu Val Met Gln Met Ser Asp Asn Thr Phe Gln Val Leu Leu Arg
50 55 60
Leu Met Leu Tyr Phe Arg Arg Arg Leu Ala Thr Arg Asn Phe Val Tyr
65 70 75 80
Leu Tyr Leu Leu Ile Leu Pro Lys Cys Thr Phe Leu Gly His Leu Ile
85 90 95
Trp Ile Ala Ile Arg Ala Leu Gln Met Gln Gly Ser Leu Val Ser His
100 105 110
Ile Pro Arg Ile Asn Gly Val Val Thr Trp Arg Leu Arg Ser Pro Ile
115 120 125

Asn Ile
130

<210> 30450
<211> 110
<212> PRT
<213> A.fumigatus

<400> 30450
Thr His Leu Ser Val Ser Met Glu Val Ser Ile Leu Ser Leu Phe Lys
1 5 10 15
Ala Tyr Ala Ala Tyr Val Thr Val Ala Val Val Leu Leu Arg Leu Ile
20 25 30
Thr Asn Arg Phe Arg Arg Gly Leu Ala Gly Ile Pro Gly Pro Thr Ile
35 40 45
Ala Lys Trp Thr Arg Leu Trp Lys Leu His Ser Val Trp Lys Gly Asn
50 55 60
His His Thr Thr Ala Ile Asp Leu His Arg Lys Tyr Gly Pro Leu Val
65 70 75 80
Arg Ile Gly Pro Lys His Val Ser Val Gly Asp Pro Ser Ala Ile Pro
85 90 95
Ile Ile Tyr Gly Leu Asn Lys Gly Phe Thr Lys Val Arg Gly
100 105 110

<210> 30451
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30451
Lys Thr Gly Phe Tyr Pro Ile Gln Cys Ile Ser Trp Asn Lys Arg Pro
1 5 10 15
Gln Met Asn Leu Phe Ser Thr Arg Asp Glu Met Phe His Arg Glu Gln
20 25 30
Lys Arg Pro Val Ala Asn Ala Tyr Ser Met Thr Ser Leu Leu Glu Leu
35 40 45
Glu Pro Ala Val Asp Ser Cys Thr Glu Ile Phe Ile Asn Gln Leu Ala
50 55 60
Lys Val Arg
65

<210> 30452
<211> 113
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (68)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30452
Thr Pro Ala Leu Arg Ser Ser Ser Ile Ser Trp Arg Arg Phe Ala Asn
1 5 10 15
Ser Lys Lys Pro Val Asp Leu Gly Met Trp Leu Gln Tyr Tyr Ala Phe
20 25 30

```
Asp Val Val Gly Glu Phe Thr Phe Ala Lys Lys Leu Gly Phe Leu Pro
        35                  40                  45
Glu Gly Lys Asp Val Asp Gly Met Ile Glu Ala Ile Gln Gly Met Leu
    50                  55                  60
Val Tyr Ala Xaa Val Cys Gly Gln Ile Pro Glu Ala His Pro Leu Leu
65                  70                  75                  80
Leu Gly Asn Pro Leu Phe Pro Ile Phe Met Pro Ser Met Glu Thr Trp
                85                  90                  95
Asn Gln Val Leu Asn Phe Thr Leu Lys Ala Ile Asn Ser Arg Ala Ser
            100                 105                 110
Leu
```

<210> 30453
<211> 256
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (254),(255)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30453

```
Ile Leu Ile Leu Lys Gly Phe Phe Glu Ser Arg Asn Asp Pro Lys Asn
1               5                   10                  15
Asp Pro Val Val Leu Trp Leu Asn Gly Gly Pro Gly Cys Ser Ser Leu
            20                  25                  30
Thr Gly Leu Phe Leu Glu Leu Gly Pro Ser Ser Ile Asn Glu Lys Ile
        35                  40                  45
Lys Pro Ile Tyr Asn Asp Phe Ala Trp Asn Ser Asn Ala Ser Val Ile
    50                  55                  60
Phe Leu Asp Gln Pro Val Asn Val Gly Tyr Ser Tyr Ser Gly Ala Ala
65                  70                  75                  80
Val Ser Asp Thr Val Ala Ala Gly Lys Asp Val Tyr Ala Leu Leu Thr
                85                  90                  95
Leu Phe Phe Lys Gln Phe Pro Glu Tyr Ala Lys Gln Asp Phe His Ile
            100                 105                 110
Ala Gly Glu Ser Tyr Ala Gly His Tyr Ile Pro Val Phe Ala Ser Glu
        115                 120                 125
Ile Leu Ser His Lys Lys Arg Asn Ile Asn Leu Lys Ser Val Leu Ile
    130                 135                 140
Gly Asn Gly Leu Thr Asp Gly Leu Thr Gln Tyr Asp Tyr Tyr Arg Pro
145                 150                 155                 160
Met Ala Cys Gly Glu Gly Gly Tyr Pro Ala Val Leu Asp Glu Ser Ser
                165                 170                 175
Cys Gln Ser Met Asp Asn Ala Leu Pro Arg Cys Lys Ser Met Ile Glu
            180                 185                 190
Ser Cys Tyr Asn Thr Glu Ser Ser Trp Ile Cys Val Pro Ala Ser Ile
        195                 200                 205
Tyr Cys Asn Asn Ala Leu Leu Gly Pro Tyr Gln Arg Thr Gly Gln Asn
    210                 215                 220
Val Tyr Asp Ile Arg Gly Lys Cys Glu Asp Ser Ser Asn Leu Cys Tyr
225                 230                 235                 240
Lys Val Phe Thr Gly Gly Ala Arg Arg Ser Val Gln Ser Xaa Xaa Ala
                245                 250                 255
```

<210> 30454
<211> 171
<212> PRT
<213> A.fumigatus

<400> 30454
Val Thr Met Arg Val Leu Pro Ala Thr Leu Leu Val Gly Ala Ala Thr
1 5 10 15
Ala Ala Ala Pro Pro Phe Gln Gln Ile Leu Gly Leu Pro Lys Lys Ser
20 25 30
Ala Asp Thr Leu Ala Lys Pro Leu His Asp Leu Gln Glu Gln Leu Lys
35 40 45
Thr Leu Ser Gly Glu Ala Arg His Leu Trp Asp Glu Val Ala Ser His
50 55 60
Phe Pro Asn Asn Met Asp His Asn Pro Val Phe Ser Leu Pro Lys Lys
65 70 75 80
His Asn Arg Arg Pro Asp Ser His Trp Asp His Ile Val Arg Gly Ala
85 90 95
Asp Val Gln Ser Val Trp Val Ala Gly Ala Ser Gly Glu Lys Glu Arg
100 105 110
Glu Ile Asp Gly Lys Leu Glu Ala Tyr Asp Leu Arg Val Lys Lys Thr
115 120 125
Asp Pro Ser Ala Leu Gly Ile Asp Pro Gly Val Lys Gln Tyr Thr Gly
130 135 140
Tyr Leu Asp Asp Asn Glu Asn Asp Lys His Leu Phe Tyr Cys Glu Phe
145 150 155 160
Tyr Leu Asp Leu Leu Val Cys Val Ala Glu Tyr
165 170

<210> 30455
<211> 119
<212> PRT
<213> A.fumigatus

<400> 30455
Lys Ile Asn Cys Ala Gly Asn Leu Asn Ser Leu Glu Val Glu Leu Pro
1 5 10 15
Asn Leu Ser Ser Gly Thr Asn Met Thr Phe Arg Asn Val Ser Ala Val
20 25 30
Ser Val Pro Ser Leu His Asn Leu Thr Gly Gln Leu Gly Phe Trp Gly
35 40 45
Asp Thr Phe Lys Ser Phe Ser Ala Pro Asn Leu Thr Glu Thr Gly Asp
50 55 60
Leu Val Phe Asn Ser Asn Ser Lys Leu Thr Asn Ile Ser Met Pro Ala
65 70 75 80
Leu Glu Thr Val Asn Gly Gly Phe Leu Ile Thr Arg Asn Asp Glu Leu
85 90 95
Ser Ser Ile Asp Leu Pro Ser Leu Lys Val Val Thr Gly Ala Val Asp
100 105 110
Phe Ser Gly Lys Phe Asp Glu
115

<210> 30456
<211> 101
<212> PRT

<213> A.fumigatus

<400> 30456
Ser Asn Arg Arg Val Ser Met Pro Lys Leu Glu Asn Val Lys Gly Gln
1 5 10 15
Phe Asn Leu Gln Ser Thr Gly Asn Phe Ser Cys Asp Thr Phe Asp Lys
20 25 30
Ala His Asn Asp Lys Val Ile Arg Gly Thr Tyr Lys Cys Lys Ala Ala
35 40 45
Glu Pro Asn Pro Thr Thr Lys Asp Gly Ser Ser Gly Thr Thr Thr Ser
50 55 60
Ser Gly Ser Ser Ala Ser Ala Ser Lys Ser Asn Ala Ala Asp Leu Asn
65 70 75 80
Ala Ala Asn Leu Pro Ala Leu Gly Phe Ala Ala Val Phe Gly Ala Leu
85 90 95
Val Gln Tyr Val Leu
100

<210> 30457
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30457
Asp Ile Tyr Gln Trp Arg Pro Asp Trp Leu Trp Gly Ile Lys Ser Ile
1 5 10 15
Glu Gln His Trp Lys Ser Leu Ile Trp Trp Pro Phe Thr Leu Ser Leu
20 25 30
Leu Val Cys Asp Ser Leu Ser Leu Ser Ser His Phe Leu Leu Ser Tyr
35 40 45
Leu Ser Pro Val Ser Leu Pro Arg Val Pro Pro Arg Arg Thr Phe Leu
50 55 60
Gly His Phe Ser Lys Asn Cys Leu
65 70

<210> 30458
<211> 115
<212> PRT
<213> A.fumigatus

<400> 30458
Leu Thr Met Ser Leu Cys Leu Asn Arg Leu Thr Glu Glu Arg Tyr Val
1 5 10 15
His Gln Pro Ser Leu Asn Ser Arg Arg Ala Asn Thr Ser Thr Thr Pro
20 25 30
Gln Pro Thr Thr Thr Gln Glu Arg Leu Thr Thr Pro Thr Arg Arg Lys
35 40 45
Gln Trp Arg Arg Asp His Pro Phe Gly Phe Tyr Ala Lys Pro His Arg
50 55 60
Thr Pro Gln Gly Val Leu Asp Leu Lys Arg Trp Glu Cys Gly Ile Pro
65 70 75 80
Gly Lys Ala Asn Thr Leu Trp Glu Gly Gly Leu Phe Lys Leu Asp Val
85 90 95
Val Phe Pro Asp Gly Lys Pro Ala Cys Ala Cys Gly Arg Asp Arg Ser
100 105 110
Val Leu Val

115

<210> 30459
<211> 91
<212> PRT
<213> A.fumigatus

<400> 30459
Thr Asp Val Ala Asn Asp Thr Gly Lys Phe Val Pro Pro Leu Phe His
1 5 10 15
Pro Asn Val Tyr Pro Ser Gly Thr Val Cys Leu Ser Ile Leu Asn Glu
20 25 30
Glu Glu Ala Trp Lys Pro Ala Ile Thr Ile Lys Gln Ile Leu Leu Gly
35 40 45
Ile Gln Asp Leu Leu Asp Asp Pro Asn Pro Glu Ser Pro Ala Gln Ala
50 55 60
Glu Ala Tyr Asn Leu Phe Lys Lys Asp Arg Pro Ala Tyr Glu Arg Arg
65 70 75 80
Val Arg Gln Val Val Lys Glu Asn Pro Ala Leu
85 90

<210> 30460
<211> 131
<212> PRT
<213> A.fumigatus

<400> 30460
Val Gly Glu His Gly Pro Ser Ser Gly Val Leu Lys Thr Gly Ser Arg
1 5 10 15
Arg Tyr Leu Ala Tyr Leu Leu Gln Phe Arg Leu Val Tyr Ser Ser Ser
20 25 30
Ile Ser Leu Ala His Val Ala Met Glu Ser Leu Thr Thr His Pro Ser
35 40 45
Thr Ala Gln Gln Ala Arg Ala Phe Thr Ser Pro Ala Ser Leu Ser Phe
50 55 60
Pro Gly Gly Ala Gly Asp Leu Thr Pro Pro Ser Ser Glu Lys Glu Gly
65 70 75 80
Asn Ile Thr Ile Gly Ala Gln Gly Ala Asn Gly Thr Val Asn Gly His
85 90 95
Gln Gln Gly Gly Asn Ala Val Asn Gly Asn Gly Val Thr Pro Ala Thr
100 105 110
Pro Ala Ala Thr Pro Gly Ala Asn Ala Pro Gly Ser Gly Ile Val Pro
115 120 125
Thr Leu Gln
130

<210> 30461
<211> 157
<212> PRT
<213> A.fumigatus

<400> 30461
Ser Cys Val Ser Gly Asn Pro Lys Thr Thr Ala Leu Ile Phe Ala Ser
1 5 10 15
Gly Lys Met Val Val Thr Gly Ala Lys Ser Glu Asp Asp Ser Lys Leu
20 25 30

```
Ala Ser Arg Lys Tyr Ala Arg Ile Ile Gln Lys Leu Gly Phe Asn Ala
        35                  40                  45
Lys Phe Thr Asp Phe Lys Ile Gln Asn Ile Val Gly Ser Trp Asp Ile
    50                  55                  60
Lys Phe Pro Ile Arg Leu Glu Gly Leu Ala Ser Arg His His Asn Phe
65                  70                  75                  80
Ser Ser Tyr Glu Pro Glu Leu Phe Pro Gly Leu Ile Tyr Arg Met Met
                85                  90                  95
Lys Pro Lys Ile Val Leu Leu Ile Phe Val Ser Gly Lys Ile Val Leu
            100                 105                 110
Thr Gly Ala Lys Val Arg Glu Glu Ile Tyr Gln Ala Phe Glu Leu Ile
        115                 120                 125
Tyr Pro Val Leu Ser Gly Thr Val Ile Leu Phe Phe Gly Phe Lys Ser
    130                 135                 140
Asn Tyr Met Leu Thr Ile Arg Ser Asp Phe Arg Lys Val
145                 150                 155
```

<210> 30462
<211> 129
<212> PRT
<213> A.fumigatus

```
<400> 30462
Val Arg His Asn Pro Arg Val Leu Val His Arg His Val Arg Asn His
1               5                   10                  15
Phe Leu Tyr Pro Leu Gln Asn Asn Val Ala Ala Asn Thr Arg Thr Leu
            20                  25                  30
Tyr Ser Arg Pro Thr Gly Asp Phe Ile Val Asp Tyr His Pro Asp Tyr
        35                  40                  45
Ala Gly Leu Phe Leu Ala Thr Gly Gly Ser Gly His Ala Tyr Lys Phe
    50                  55                  60
Phe Pro Val Leu Gly Asp Lys Val Val Asp Ala Ile Glu Gly Lys Leu
65                  70                  75                  80
Glu Pro Glu Leu Arg Asn Leu Trp Lys Trp Pro Val Lys Val Asp Gln
                85                  90                  95
Ser Ala Phe Glu Gly Asp Gly Ser Arg Ser Gly Glu Gln Gly Leu Leu
            100                 105                 110
Leu Met Glu Glu Leu Ala Lys Ser Thr Lys Ala Gln Arg Lys Ser Val
        115                 120                 125
Leu
```

<210> 30463
<211> 75
<212> PRT
<213> A.fumigatus

```
<400> 30463
Phe Val Cys Gly Arg Ala Arg Glu Thr Thr Thr Ala Ser Thr Asn Pro
1               5                   10                  15
Lys Ala Val Pro Ile Pro Gly Gly Asn Gly Val Thr Met Gln Val Ser
            20                  25                  30
Leu Pro Glu Asn Asp Val Pro Val Pro Leu Glu Gly Gln Glu Ala Phe
        35                  40                  45
Arg Thr Ala Leu Lys Glu Leu Leu Pro Ser Phe Ala Glu Arg Glu Phe
    50                  55                  60
```

```
Val Thr Thr Arg Val Cys Trp Tyr Thr Asp Thr
65                  70                  75

<210> 30464
<211> 259
<212> PRT
<213> A.fumigatus

<400> 30464
Thr Thr Leu Thr Arg Ile Gly Ile Tyr Pro Thr Thr Lys Gly Ala Asn
1               5                  10                  15
Asp Cys Gly Pro Ile Trp Ser Cys Leu Leu Gln Arg Gly Met Gly Phe
            20                  25                  30
Asn Gln Leu Asp Val Pro Asn Arg Tyr Val Leu Thr Asn Ile Leu Glu
        35                  40                  45
Arg Ala Tyr Ala Leu Gln Arg Arg His Pro Ile Thr Phe Trp Gly Arg
    50                  55                  60
Pro Gly Phe Thr Met Arg Ser Val His Asp Phe Ile His Asn Ala Thr
65                  70                  75                  80
His Ser Val Val Ser Gly Ile Ile Val His Asn Glu Lys Asp Ala Glu
                85                  90                  95
Gly Met Leu Gly Leu Ala Arg Leu Met Glu Leu Phe Asp Ala Ile Asp
            100                 105                 110
Glu Glu Val Val Asp Cys Trp Asn Gln Arg Cys Asn Val Asn Ser Gly
        115                 120                 125
Tyr Cys Asn Asn Leu Thr Glu Glu Lys Ala Leu Ser Ile His Gln Asn
    130                 135                 140
Leu Arg Arg Val Cys Glu Ser Glu Arg Tyr Lys Gly Tyr Asp Trp Phe
145                 150                 155                 160
Glu Arg Thr Lys Ser Val Pro Gly Glu Val Gln Ser Val Gln Pro Thr
                165                 170                 175
Ile Ser Met Arg Glu Thr Gln Cys Ala Asp Val Phe Ile Thr Lys Lys
            180                 185                 190
Trp Leu Gln Asn Arg Val Trp Val Leu Cys Ser Thr His Gly Leu Leu
        195                 200                 205
Arg Pro Val Ser Asp His Pro Glu Leu Ser Phe Glu Tyr Thr Ile Thr
    210                 215                 220
Val Ala Val Asp Ala Leu Lys Ile Cys Gln Ser Leu Arg Leu Ser Ser
225                 230                 235                 240
Met Glu Ala His Gly Ile Gly Leu Val Ser Thr Val His Pro Asn Lys
                245                 250                 255
Asn Leu Phe

<210> 30465
<211> 125
<212> PRT
<213> A.fumigatus

<400> 30465
Val Gln Ser Ile Arg Thr Lys Thr Tyr Phe Asn Phe Ser Arg Tyr Ser
1               5                  10                  15
Arg Ala Arg Ala Gln Val Glu Lys Leu Tyr Asp Ile Ala Val Ser Ala
            20                  25                  30
Ile Gly Ile Ser Ala Asn Val Arg Gln Pro Leu Gly Glu His Ser Thr
        35                  40                  45
```

```
Ala Ser Val Ala Gly Ser Met Ala Gly Pro Gly Val Ala Pro Pro Gly
    50                  55                  60
Ser Leu Val Gly Ala Met Ser Pro Asn Thr Ala Ala Val His Ser Thr
65                  70                  75                  80
Gln Ser Leu Ala Glu Asp Phe Met Leu Leu Leu Asn Thr Leu Arg Gly
                85                  90                  95
Gly Asn His Pro Phe Met Glu Lys Phe Lys Ala Tyr Leu Ser Ser Leu
            100                 105                 110
His Ile Val Gly Val Gly Cys Ser Asn Trp Ala Gln Thr
        115                 120                 125
```

<210> 30466
<211> 416
<212> PRT
<213> A.fumigatus

<400> 30466

```
Leu Asn Gln Leu Arg Gly Tyr Leu Cys Ser Asp Val Leu Phe Glu Asn
1               5                   10                  15
Pro Ser Ile Ser Asn His Leu Arg Ile Phe Arg Cys Ser Pro Asn Ser
            20                  25                  30
Arg Val Ser Gln Ile Arg Gln Gln Gln Gln Thr Gln Leu Leu Arg Lys
        35                  40                  45
Ser Ser Gln Ser Ser Leu Ser Asp Ala Tyr Pro Tyr Gln Arg Pro Ile
    50                  55                  60
Thr Ser Arg Glu Thr Gly Gln His Gly Val Ala Pro Ser Val Gln Asp
65                  70                  75                  80
Pro Thr Gln Trp Pro Ile Pro Gln Arg Gly Glu Ala Ser Val Ser Thr
                85                  90                  95
Asp Val Val Pro Pro Arg Ser Asn Thr Ser Ile Gly Pro Ser Trp Pro
            100                 105                 110
Ala Thr Asp Thr Ser Ser Val Asp Ser Gln Thr Asn Ser Ala Ile Ser
        115                 120                 125
Trp Asn Glu Arg Ser Asp Val Glu Tyr Trp Leu Pro Asp Asn Leu Asp
    130                 135                 140
Ala Gln Val Pro Val Phe Glu Phe Pro Gly Ser Asn Ile Tyr Leu Lys
145                 150                 155                 160
Ala Ser Leu Pro Ser Ile Ile Gln Pro Glu Gln Glu Ala Ala Gly Leu
                165                 170                 175
Gln Pro His His Val Asp Thr Ser Asn Leu Ala Leu Ser Thr Met Gly
            180                 185                 190
Val Met Pro Ala Gly Pro Val Pro Thr Arg Thr Thr Trp Pro Ala Ser
        195                 200                 205
Ile Val Glu Ala Asn Met Ile Pro Trp Ile Glu Val Tyr Phe Asp Arg
    210                 215                 220
Leu His Pro Thr Leu Pro Val Leu Asn Arg Ser Ser Leu Phe Ile Arg
225                 230                 235                 240
Met Leu Ala Gln Glu His Arg Arg Asn Pro Gln Phe Gly Ala Met Leu
                245                 250                 255
Leu Ser Leu Cys Ala Phe Ser Leu Thr Gln Pro Ile Glu Ile Asp Glu
            260                 265                 270
Arg Pro Thr Ser Ser Ser Arg Ala Ser Gln Ala Arg Ser Met Met Asn
        275                 280                 285
Glu Ala Thr Lys Met Arg Ser Cys Ser Asp Phe Gly Glu His Pro Thr
    290                 295                 300
Ile Glu Ala Val Leu Thr Ser Phe Phe Leu Phe Gly Cys Leu Phe Gly
```

```
305                 310                 315                 320
Ser Asn Gln His Asn Ala Ala Trp Leu Arg Leu Arg Glu Ala Leu Asp
                325                 330                 335
Leu Ala Ala Thr Leu Gly Leu Asn Asn Pro Asp Ser Tyr Arg Asp Ile
            340                 345                 350
Pro Asn Asp Glu Arg Gly Gln Arg Leu Arg Thr Tyr Leu Val Leu Ser
        355                 360                 365
Ile Thr Glu Arg Tyr Gly Ile Gln Pro Thr Arg Cys Ala Lys Ser Ile
    370                 375                 380
Cys Ala Asp Lys His Pro Arg Lys Ser Leu Cys Pro Ala Thr Ala Thr
385                 390                 395                 400
Ser His His Phe Leu Gly Glu Thr Gly Val His His Ala Phe Cys Pro
                405                 410                 415
```

<210> 30467
<211> 124
<212> PRT
<213> A.fumigatus

<400> 30467

```
Ala Val Leu Arg His Pro Pro Gly Ser Gln Ser Ala Ile Leu Leu Ala
1               5                   10                  15
Gln Trp Leu Gly Gln Ser Asp Ser Asp Ala Thr Ala Ala Met Ile Asn
            20                  25                  30
Ser Gly Pro Ala Thr Met Thr Asp Trp Met Leu Leu Ala Met Ser Gln
        35                  40                  45
Met Asn Gly Glu Ser Gln Ala Asn Lys Val Gly Gln Ala Phe Ala Gln
    50                  55                  60
Lys Leu Leu Glu Ile Gly Asp Ile His Thr Ser Ala Thr Val Leu Leu
65                  70                  75                  80
Gly Leu Gly Asp Lys Asn Glu Ala Ile Glu Val Tyr Val Ser Gln Asn
                85                  90                  95
Cys Tyr Met Glu Ala Ile Leu Met Thr Cys Leu Leu Thr Pro Thr Asp
            100                 105                 110
Trp Gln Arg Gln Ser Tyr Leu Val Arg Arg Trp Gly
        115                 120
```

<210> 30468
<211> 290
<212> PRT
<213> A.fumigatus

<400> 30468

```
Val Leu Phe His Pro Met Thr Arg Leu Lys Leu Asn Pro His Arg Pro
1               5                   10                  15
Phe Arg Lys Thr Trp Ser Trp Asp Val Arg Thr Lys His Val Thr Tyr
            20                  25                  30
Glu Pro Ile Pro Thr Ile Glu Asn Pro Arg Gly Phe Ala Asn Tyr Gly
        35                  40                  45
Pro Thr Ala Thr Leu Phe Thr Leu Gly Pro Asn Tyr Thr Val Gln Gln
    50                  55                  60
Tyr Asp Leu Asp Asn Pro Ser Met Val Ala Asn Val Gln His Ile Pro
65                  70                  75                  80
Ala Gly Ala Leu Thr Ala Thr Pro Glu Glu Pro Arg Gly Gly Ser Val
                85                  90                  95
Asp Ser Arg Ala Leu Gln Asp Pro Pro Asp Leu Arg Glu Ser Ala Arg
```

```
            100                 105                 110
Ile Tyr Asp Ser Arg Pro Pro Phe Asp Gln Ser Gly Val Asp Ala Val
        115                 120                 125
Arg Gln Gln Arg Ala Glu Met Ser Ser Pro Val Ser Ser Arg Ser His
    130                 135                 140
Ala Asn Ser Val Ser Ser Lys Ala Ser Ser Gly Lys Tyr Arg Met Val
145                 150                 155                 160
Pro Phe Ser Ala Pro Ser Arg Ser Gly Gln Thr Ala Thr Ser Phe Ser
                165                 170                 175
Leu Ala Ser Ala Ser Gly Arg Glu Thr Pro Gln Gln Ser Gly Ala Ser
            180                 185                 190
Tyr Thr Tyr Ala Ser Ser Val Ser Met Ser Ser Val Lys Ser Ser Arg
        195                 200                 205
Ala Gly Ser Arg Leu Arg Asn Glu Val Gln Phe Ser Pro Thr Asp Gln
    210                 215                 220
Arg Ile Asp Leu Phe Pro Phe Thr Arg Ala Arg Leu Asn Asp Val Pro
225                 230                 235                 240
Tyr Arg Asn His Arg Leu Ile Asp Glu Thr His Leu Thr Pro Asn Asp
                245                 250                 255
Leu Arg Arg Gln Met Leu Ser Val Val Phe Gly Trp Asp Gly Asp Ile
            260                 265                 270
Gln Asp Leu Ile Arg Asp Glu Cys Glu Leu Ser Ile Phe Thr Ala Leu
        275                 280                 285
Leu Tyr
    290
```

<210> 30469
<211> 464
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (143)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 30469
Arg Pro Arg Ile Gly Ser Ala Ser His Ile Trp Ser Val Asp Gly Gly
1               5                   10                  15
Glu His Val Val Ser His Ala Gln Gln Gln Leu Ala Ile Arg Cys Phe
            20                  25                  30
Met Cys Thr Gly Val Glu Pro Ser Asp Pro Trp Thr Ser Pro Ala Ala
        35                  40                  45
Gln Gln Ala Ala Ser Phe Ala Glu Ile Leu Ser Gly Arg Ser Pro Met
    50                  55                  60
Thr Ser Pro Glu Pro Gln Pro Leu Gln Gln Gln Ser Ser Asn Phe Leu
65                  70                  75                  80
Arg Pro Thr Pro Asn Ser Gln Pro Lys Val Pro Pro Ser Thr Arg Ser
                85                  90                  95
Asn Ala Lys Thr Pro Ala Leu Lys Leu Ile Thr Ser Phe Asp Ser Gln
            100                 105                 110
Pro Gly Lys Phe Arg Phe Pro Gly Leu Lys Ser Asp Asp Arg Thr Pro
        115                 120                 125
Thr Asn Ala Pro Gly Ile Thr Pro Ile Ala Glu Ser Ala Val Xaa Gly
    130                 135                 140
Ser Ala Ile Ser Pro Gly Gly Leu Gly Ser Tyr Arg Ala Asn Asn Ile
```

```
145                 150                 155                 160
Gln Ser Leu Asn Asn Ala Met Asn Ala Arg Thr Gly Thr Pro Ala Phe
                165                 170                 175
Asn Arg Ser Arg Leu Pro Ser Ile Gly Glu Thr Pro Val Asp Val His
            180                 185                 190
Pro Pro Ala Phe Leu Ser Ser Gly Leu Asn Asn Ser Val Glu Tyr Ala
        195                 200                 205
Ser Ser Val Glu Ser Thr Ser Arg Leu His Glu Gly Ser Gln Ser Gln
    210                 215                 220
Asp Glu Glu Val Leu Ser Ser Leu Leu Pro Ser Ala Arg Tyr Asn Pro
225                 230                 235                 240
Glu Lys Asp Thr Phe Lys Pro Ser Pro Gln Thr Ala Val Gln Ala Asn
                245                 250                 255
Ser Asp Lys Phe Ala Thr Ile Lys Val Leu Pro Pro Pro Ser Pro Gly
            260                 265                 270
Val Phe Glu Ala Leu Lys Glu Arg Ser Asp Ser Arg Asn Gly Ser Arg
        275                 280                 285
Asp Arg Lys Pro Gly Val Leu Gln Leu His Leu Phe Glu Pro Gly Ala
    290                 295                 300
Ser Glu Ser Asp Leu Leu Gly Pro Pro Ser Ser Thr Met Ser Asn Ile
305                 310                 315                 320
Arg Ser Pro Ala Ser Thr Leu Asn Ser Tyr Asn Ser Ala Lys Ser Pro
                325                 330                 335
Ser Val Ser Gly Arg Ser Ile Asp Gln Tyr Ile Ser Ser Leu Ala Glu
            340                 345                 350
Ala Asn Tyr Arg Ser Gln Lys Leu Ser Arg Gly Arg Arg Asn Thr Asp
        355                 360                 365
Asp Ser Val Ser Gln Ser Ser Ala Arg Lys Ile Thr Ser Arg Asn Thr
    370                 375                 380
Ser Gln Glu Thr Thr Arg Gly Arg Asn Glu Arg Arg Tyr Ile Gln Pro
385                 390                 395                 400
Ala Lys Arg Ser Pro Ser Ser Pro Val Pro Met Ser Pro Glu Glu Ile
                405                 410                 415
Ala Arg Tyr Ser Lys Gly Thr Gly Thr Lys His Pro Ala Ser Lys Ser
            420                 425                 430
Arg Asn Ser Ser Arg Val Arg Lys Pro Arg Ser Arg His Ser Ser Glu
        435                 440                 445
Arg Arg Arg His Arg Ser Val Phe Ala Thr Gly Trp Lys Ile Arg Val
    450                 455                 460
```

<210> 30470
<211> 79
<212> PRT
<213> A.fumigatus

<400> 30470

```
Ser Val Gly Leu Asn Cys Thr Ser Phe Arg Ser Arg Asp Pro Ala Arg
1               5                   10                  15
Glu Leu Phe Thr Asp Asp Met Glu Thr Glu Glu Ala Tyr Val Tyr Glu
            20                  25                  30
Ala Pro Asp Cys Cys Gly Val Ser Leu Pro Leu Ala Glu Ala Ser Glu
        35                  40                  45
Asn Asp Val Ala Val Cys Pro Asp Leu Leu Gly Ala Glu Asn Gly Thr
    50                  55                  60
Ile Leu Tyr Phe Pro Glu Asp Ala Phe Glu Leu Thr Glu Leu Ala
65                  70                  75
```

<210> 30471
<211> 158
<212> PRT
<213> A.fumigatus

<400> 30471
Ser Ser Ser Glu Glu Asn Ser Pro Leu Met Ser Ser Ser Ser Asn Pro
1 5 10 15
Ser Ser Glu Ser Ser Ser Leu Pro Ser Val Ser Ser Asp Pro Ser Val
20 25 30
Ser Met Pro Ser Pro Ser Phe Ser Ser Glu Glu Thr Cys Asp Ser Phe
35 40 45
Leu Cys Arg Leu Leu Ser Phe Ala Glu Val Leu Asp Leu Cys Gly Arg
50 55 60
Ser Ser Ser Leu Ser Ser Asp Ala Ser Ser Ser Ser Ser Leu Pro Ser
65 70 75 80
Ser Glu Ser Ser Ser Ser Ser Ser Ser Leu Ser Ser Ser Ser Ser Leu
85 90 95
Glu Arg Gly Leu Asn Arg Ser Ser Ser Leu Ser Ala Ser Ser Ala Ser
100 105 110
Arg Leu Ile Phe Glu Pro Ala Tyr Cys Phe Pro Arg Leu Ile Gly Ser
115 120 125
Cys Leu Arg Ser Leu Ala Phe Leu Phe Glu Val Asn Asn Leu Ile Leu
130 135 140
Met Ile Thr Asn Arg Gln Lys Val Cys Thr His Pro Thr Ala
145 150 155

<210> 30472
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30472
Cys Leu Gln Gly Leu Pro Arg Ser Gly Thr Pro Pro Ser Phe Pro Arg
1 5 10 15
Arg Arg Gly Leu Pro Glu Lys Arg Lys Ile Arg Asp Val Lys Lys Val
20 25 30
Ile Ala Val Ser Ser Ala Lys Gly Gly Val Gly Lys Ser Thr Ile Ala
35 40 45
Gly Met Lys Leu Leu Ser Trp Met Pro Ser Glu Tyr Leu Ile
50 55 60

<210> 30473
<211> 240
<212> PRT
<213> A.fumigatus

<400> 30473
Asp Thr Cys Cys Trp Ala Gln Glu Leu Met Asp Val Leu Asp Asn Cys
1 5 10 15
Leu Val Pro Leu Thr Asn Tyr Gly Leu Lys Ser Met Ser Met Gly Tyr
20 25 30
Leu Leu Pro Gln Pro Lys Pro Asp Pro Ser Gln Pro Thr Gly Asn Ile
35 40 45
Pro Met Asp Thr Thr Pro Ile Ser Trp Arg Gly Leu Met Val Thr Lys

```
    50                  55                  60
Ala Met His Gln Leu Leu His Ser Val Ser Trp Gly Pro Leu Asp Val
65                  70                  75                  80
Leu Val Leu Asp Leu Pro Pro Gly Thr Gly Asp Val Gln Leu Thr Ile
                85                  90                  95
Gly Gln Glu Leu Ile Val Asp Gly Ala Val Ile Val Thr Thr Pro Gln
            100                 105                 110
Asp Ile Ala Leu Arg Asp Ala Val Arg Gly Phe Gly Met Phe Glu Lys
        115                 120                 125
Met Asn Ile Pro Val Leu Gly Met Val Arg Asn Met Ala Tyr Phe Ala
    130                 135                 140
Cys Pro Gln Cys Gly His Gln Thr Lys Ile Phe Ser His Gly Glu Ser
145                 150                 155                 160
His Gly His Gly Ser Ala Asp Ser Asp Ser Gly Val Val Ala Glu Cys
                165                 170                 175
Lys Arg Leu Gly Val Glu Phe Leu Gly Asp Ile Pro Leu Asp Ala Lys
            180                 185                 190
Val Cys Glu Asp Ala Asp Arg Gly Val Pro Thr Val Val Ser Glu Glu
        195                 200                 205
Ser Asp Asp Arg Ser Val Arg Arg Lys Ala Phe Leu Asp Val Ala His
    210                 215                 220
Arg Ile Ala Gln Lys Met Gly Trp Asn Gly Gly Thr Asn Thr Thr Met
225                 230                 235                 240
```

<210> 30474
<211> 178
<212> PRT
<213> A.fumigatus

<400> 30474

```
Arg Phe Val Ile Ile Arg Ile Arg Leu Leu Thr Ser Asn Arg Lys Ala
1               5                   10                  15
Arg Leu Arg Arg Gln Asp Pro Ile Asn Leu Gly Lys Gln Tyr Ala Gly
            20                  25                  30
Ser Lys Ile Ser Arg Glu Ala Leu Glu Ala Glu Ser Asp Asp Asp Leu
        35                  40                  45
Phe Arg Pro Arg Ser Ser Asp Glu Glu Glu Asp Ser Glu Asp Glu Glu
    50                  55                  60
Glu Glu Asp Ser Glu Leu Gly Ser Asp Glu Asp Glu Asp Ala Ser Glu
65                  70                  75                  80
Glu Ser Glu Glu Glu Arg Pro Gln Arg Ser Arg Thr Ser Ala Lys Asp
                85                  90                  95
Ser Lys Arg Gln Arg Lys Glu Ser Gln Val Ser Ser Asp Glu Lys Asp
            100                 105                 110
Gly Glu Gly Met Asp Thr Asp Gly Ser Glu Glu Thr Glu Gly Ser Glu
        115                 120                 125
Asp Asp Ser Glu Asp Gly Phe Asp Glu Asp Asp Met Ser Gly Glu Phe
    130                 135                 140
Ser Ser Asp Asp Asp Gln Glu Gly Asp Glu Asp Gly Asp Asp Asp Glu
145                 150                 155                 160
Asp Glu Asp Glu Glu Thr Gly Leu His His Gly Ala Gly Arg Val Arg
                165                 170                 175
Ala Ser
```

<210> 30475

<211> 214
<212> PRT
<213> A.fumigatus

<400> 30475
Asp Ser Ile His Gln Leu Asn Arg Leu Tyr Pro His Lys Pro Phe Arg
1 5 10 15
Ser Ile Arg Ser Thr Pro Lys Ser Arg Arg Glu Lys Arg Leu Pro Gln
20 25 30
Val Ala Asp Cys Ile Gly Asn Gly Ala Asp Ser Ala Ala Thr Trp Leu
35 40 45
Glu Ala Lys Ala Ala Pro Thr Gly Gln Met Cys Gly Ser Val Ala Thr
50 55 60
Thr Leu Trp Asn Tyr Leu Lys Ala Asp Asp Tyr Ala Ala Val Lys Asn
65 70 75 80
Leu Ala Trp Thr Ala Gly Ser Gly Ile Ala Leu Asn Val Ile Gly Asn
85 90 95
Ile Pro Asn Tyr Tyr Ile Asn Ala Leu Leu Ala Lys Gln Ser Ala Ser
100 105 110
Gly Glu Pro Ser Asp Ala Cys Gly Gln Asn Asn Asp Ser Thr Tyr Ala
115 120 125
Ser Asp Ala Ala Ser Ser Val Tyr Glu Phe Cys Leu Ser Ile Gln Thr
130 135 140
Glu Lys Met Glu Asn Thr Ala Thr Arg Phe Asp Ala Met Asp Ser Arg
145 150 155 160
Ser Ser Ser Thr Trp Pro Ala Gly Val Gln Gly Met Ala Lys Tyr Phe
165 170 175
Ile Ser Gln Gln Ala Glu Thr Trp Ala Pro Ile Cys Ala Ala Tyr Gly
180 185 190
Ile Thr Trp Lys Arg Asp Met Leu Leu Arg Phe Lys Thr Leu Thr Ala
195 200 205
Ser Trp Phe Ala Pro Trp
210

<210> 30476
<211> 131
<212> PRT
<213> A.fumigatus

<400> 30476
Glu Val Lys Leu Leu Gln Ile Leu Ser Lys Val Tyr Lys Ser Ser Ser
1 5 10 15
Lys Pro Pro Val Lys Asn Leu Ser Phe Phe Leu Ala Asp Met Arg Pro
20 25 30
Gln Leu Leu Leu Ile Tyr Ala Val Leu Ala Gly Ala Glu Thr Thr Ala
35 40 45
Thr Val Asp Gln Ser Pro Gln Glu His Phe Gly Leu His Ser Gln Phe
50 55 60
Ile Asp Lys Leu Gly Ala Thr Tyr Asn Val Phe Val Lys Asp Phe His
65 70 75 80
Gly Thr His Lys Ile Gln Tyr Ile Asn Ser Thr Asp Phe Ile Pro Thr
85 90 95
Ser His Phe Val Arg Phe Asp Gln His Pro Asn Leu Asp Glu Arg Asn
100 105 110
Val Cys Arg Lys Ser Leu Ile Ala Leu Val Thr Ala Arg Thr Val Arg
115 120 125

Arg Leu Gly
130

<210> 30477
<211> 884
<212> PRT
<213> A.fumigatus

<400> 30477
Pro Arg Val Arg Phe Glu Asn Glu Gly Ala Arg Pro Gly Val Trp Pro
1 5 10 15
Leu Asp Gly Ser Gly Ile Leu Pro Glu Asn Lys Phe Val Gly Ile Thr
20 25 30
Lys Glu Val Pro Glu Pro Met Ala Val Arg Phe Cys Leu Thr Asn Leu
35 40 45
Asn Ser Gly Gly Glu Ser Gly Glu Ile Pro Thr Gly Ala Val Val Gly
50 55 60
Leu Val Leu Thr Ile Met Phe Arg Thr Ser Arg Val Val Ser Gly Ile
65 70 75 80
Arg Trp His Leu Asn Glu Phe Thr Gly Arg Asn Met Ile Glu Glu Gly
85 90 95
Gly Asn Pro Leu Thr Leu Lys Val His Phe Asp Asn Ser Ala Gly Asn
100 105 110
Gln His Arg Gly Phe Leu Asp Cys Ala Leu Ser Glu Thr Gln Gln Trp
115 120 125
Phe Met Glu Glu Glu Ser Ala Ala Cys Pro Tyr Cys Arg Ser Gln Val
130 135 140
Pro Glu Glu Ser Asp Ala Gly Trp Leu Pro Ser Arg Thr Ser Arg Pro
145 150 155 160
Arg Pro Arg Arg His Pro Gln Lys Arg Gly Leu Thr Ser Ser Lys Arg
165 170 175
Ala Arg Gly Asn Met Pro Asp Thr Gln Glu Ser Pro Ile Phe Pro Met
180 185 190
Arg His Ser Thr Arg Lys Ile Tyr Ala His Ala Arg Thr Ser Val Asp
195 200 205
Trp Asp Glu Asp Leu Arg Pro Ser Asp Glu Pro Glu Lys Leu Glu Ser
210 215 220
Gln Lys Ser Ile Gly Val Thr Ser Ile Ser Ser Pro Phe Pro Gly Glu
225 230 235 240
Asn Phe Ile Phe Gly Gln Thr Ser Ser Thr Gly Thr Lys Arg Lys Ser
245 250 255
Lys Arg Lys Thr Ser Phe Cys Lys Arg Arg Lys Thr Ser Arg Lys Thr
260 265 270
Gly Arg Asp Thr Gly Lys Gly Arg His Glu Ile Glu Glu Ser Gly Leu
275 280 285
Gly Gln Glu Ser Asp Leu Lys Gly Thr Val Asp Ala Thr Tyr Met Pro
290 295 300
Glu Val Asn Ala Gln Ser Glu Thr Ser Lys Gly Ser His Thr Lys Ala
305 310 315 320
Asp Arg Ala Ser Met Asp Asp Ser Asp Glu Glu Cys Pro Pro Arg Gln
325 330 335
Leu Glu Ser Leu Thr Asp Glu Ala Pro Glu Ala Ala Leu Val Ala Val
340 345 350
Met Glu Val Ser Gly Val Glu Gln Ser Val Ala Phe Leu Met Asp Gln
355 360 365
Ala Gln Glu Ile Gly Cys Pro Leu Ile Phe Glu Ser Ser Arg Gly Thr

```
    370                 375                 380
Gly Asp Gln His Ala Ser Gln Arg Ser Asn Pro Gln Ile Gln Met Pro
385                 390                 395                 400
Ser Ser Asn Tyr Glu Gly Asp Ile Ile Ser Tyr Pro Asp Phe Glu Glu
                405                 410                 415
Gly Glu Leu Gly Gly Arg Gly Ala Val Val Gly Lys Lys Leu Ala Ser
            420                 425                 430
Ala Phe His Pro Asp Cys Thr Phe Tyr Leu Gln Gly Glu Glu Lys Glu
        435                 440                 445
Asp Asp Asn Thr Ile Arg Asp Gly Val Thr Gly Ser Val Asp Lys Glu
    450                 455                 460
Asp Asp Glu Ser His Ala Met Ser Ala Ser Ala Leu Gln His Asn Asp
465                 470                 475                 480
Phe Glu Thr Arg Ala Val Lys Val Gln Ser Gln Ala Ala Met Gly Ser
                485                 490                 495
Arg Thr Asn Arg Thr Thr His Leu Ser Pro Asp Ser Ala Gln Ala Val
            500                 505                 510
Ala Glu Lys Gln Thr Ser Arg Glu Tyr Pro Gly Ser Ile Gln Gln Ile
        515                 520                 525
Ser Ser Thr Arg Leu Thr Arg Arg Lys Ser Arg Val Val Gln Thr Glu
    530                 535                 540
Lys Asn Asn Ala Ser Arg Lys Lys Lys Ala Gln Thr Lys Pro Ser Thr
545                 550                 555                 560
Val Ala Ser Ser Glu Lys Glu Asn Gln Ala Asp Glu Ile Glu Cys Gln
                565                 570                 575
Ser Gln Glu Ile Cys Gly Leu Gly Gln Arg Lys Pro Gly Leu Tyr Ala
            580                 585                 590
Leu Lys Lys Pro Gly His Gly Asn Arg Arg Ala Gln Thr Ser Thr Arg
        595                 600                 605
Glu Arg Glu Arg Val Thr Ser Gly Tyr His Ser Leu Lys Leu Ile His
    610                 615                 620
Arg Ile Gln Lys Pro Glu Glu Gly Asn Ser Ser Asp Ser Asp Asn Pro
625                 630                 635                 640
Lys Ile Leu Ser Arg Thr Lys Thr Ile Pro Arg Leu Thr Pro Arg Lys
                645                 650                 655
Ala Ile Val Asp Asn Asn Gly Ser Pro Arg Leu Val Ser Arg His Ile
            660                 665                 670
Ala Gly Ser Gln Cys Ser Thr His Ala Asn Leu Asn Phe Thr Gln Arg
        675                 680                 685
Ser Gly Lys Leu Met Arg Ala Gly Met Asn Leu Val Ser Gln Arg Ser
    690                 695                 700
Ser Glu Ser Gly Tyr Glu Ala Asp Phe Asp Glu Gln Leu Glu Gln Ile
705                 710                 715                 720
Pro Leu Glu Thr His Glu Ile Ser Ser Phe Arg Thr Lys Met Asp Ala
                725                 730                 735
His Arg Asp Lys Tyr Val His Arg Asn Cys Glu Thr Ala Thr His Glu
            740                 745                 750
Glu Leu Ser Glu Asn Pro Val Thr Gly Cys Arg Glu Gly Leu Val Ala
        755                 760                 765
Ser Lys Val Val Thr Ala Ser Gly Lys Glu Phe Met Met Arg Phe Ser
    770                 775                 780
Thr Lys Pro Pro Lys Lys Ser Pro Arg Arg Leu Asp Arg Ser Asn Ala
785                 790                 795                 800
Glu Gly Asp Gly Pro Thr Gln Leu Ser Ser Lys Lys Glu Gly Cys Phe
                805                 810                 815
Ile Asp Ser Ser Cys Asp Pro Thr Glu Met Ser Pro Arg Ser Glu Glu
```

```
            820                 825                 830
Leu Pro Arg Gln Ala Asp Leu Val Ser Ser Leu Gln Ser Leu Tyr Glu
        835                 840                 845
Ser Ala His Asp Met Leu Leu Ile Thr Asn Glu Val Cys Gln Cys His
    850                 855                 860
Tyr Thr Ile His Tyr Asp Arg Val Leu Leu Met Gln Arg Lys Ala Pro
865                 870                 875                 880
Ile Ala Arg Thr
```

<210> 30478
<211> 65
<212> PRT
<213> A.fumigatus

<400> 30478
```
Asn Trp Ser Thr Thr Leu Thr Ser Cys Asn Ser Ser Ser Ile Phe Ile
1               5                   10                  15
Asn Ser Asp Met Thr Ser His Thr Trp Asn Pro Ser His Met Leu Asp
            20                  25                  30
Val Ser Ala Ile Tyr Leu His Cys Thr Ser Lys Ser Leu Gly Pro Val
        35                  40                  45
Leu Ala Glu Met Arg Leu Ser Pro Gly Gly Ala Leu Leu Thr Ile Pro
    50                  55                  60
Pro
65
```

<210> 30479
<211> 93
<212> PRT
<213> A.fumigatus

<400> 30479
```
Ser Ala Ile Gly Ile Asn Ile Leu Pro Leu Gln Pro Thr Leu Phe Thr
1               5                   10                  15
Leu Thr Ser Pro Ser Phe Ser Ser Ile Cys His Leu Ser Ile Asp Ser
            20                  25                  30
Ser Asp Met Phe Ser Ser Leu Leu Asn Arg Gly Ala Leu Leu Ala Val
        35                  40                  45
Val Ser Leu Leu Ser Ser Ser Val Ala Ala Glu Val Phe Glu Lys Leu
    50                  55                  60
Ser Ala Val Pro Gln Gly Leu Phe Ser Arg Pro Pro Ala Ser Tyr Val
65                  70                  75                  80
Val Thr Asp Glu Asn Arg Met Glu Ile Leu Pro His Pro
                85                  90
```

<210> 30480
<211> 199
<212> PRT
<213> A.fumigatus

<400> 30480
```
Leu Thr Arg Thr Gly Trp Lys Tyr Ser His Thr Pro Ser Asp Arg Asp
1               5                   10                  15
Pro Ile Arg Leu Gln Ile Ala Leu Lys Gln His Asp Val Glu Gly Phe
            20                  25                  30
```

```
Glu Thr Ala Leu Leu Glu Met Ser Asp Pro Tyr His Pro Asn Tyr Gly
        35                  40                  45
Lys His Phe Gln Thr His Glu Glu Met Lys Arg Leu Leu Leu Pro Thr
    50                  55                  60
Gln Glu Ala Val Glu Ser Val Arg Gly Trp Leu Glu Ser Ala Gly Ile
65                  70                  75                  80
Ser Asp Ile Glu Glu Asp Ala Asp Trp Ile Lys Phe Arg Thr Thr Val
                85                  90                  95
Gly Val Ala Asn Asp Leu Leu Asp Ala Asp Phe Lys Trp Tyr Val Asn
            100                 105                 110
Glu Val Gly His Val Glu Arg Leu Arg Thr Leu Ala Tyr Ser Leu Pro
        115                 120                 125
Gln Ser Val Ala Ser His Val Asn Met Val Gln Pro Thr Thr Arg Phe
    130                 135                 140
Gly Gln Ile Lys Pro Asn Arg Ala Thr Met Arg Gly Arg Pro Val Gln
145                 150                 155                 160
Val Asp Ala Asp Ile Leu Ser Ala Ala Val Pro Ala Gly Asp Thr Ser
                165                 170                 175
Thr Cys Asp Gln Val Phe Thr Pro His Cys Leu Lys Asp Leu Tyr Asn
            180                 185                 190
Ile Arg Asp Tyr Gln Ala Asp
        195

<210> 30481
<211> 64
<212> PRT
<213> A.fumigatus

<400> 30481
Pro Val Asn Thr Ile Leu Asp Val Ile Gln Asp Tyr Ser Val His Pro
1               5                   10                  15
Tyr Ser Ala Glu Met Cys Ala Val Cys Ile Cys Leu Gly Pro Val Ser
            20                  25                  30
Ser Arg Arg Ser Val His Asn Tyr Ser Tyr Pro His Pro His Leu Gln
        35                  40                  45
Pro Gly Lys Ile Arg Thr Thr Lys Leu His Cys Ser Met Thr Met Glu
    50                  55                  60

<210> 30482
<211> 142
<212> PRT
<213> A.fumigatus

<400> 30482
Thr Arg Phe Phe Gln Thr Pro Phe His Pro Val Ile Leu Glu Ile Asp
1               5                   10                  15
Ala Thr His Thr Ile Phe Val Met Ser Gln Glu Tyr Phe Pro Gly Lys
            20                  25                  30
Gly Ala Ser Ala Gly Glu Gly Ser Ser Arg His Pro Pro Glu Asp Val
        35                  40                  45
Ser Ser Glu Asn Ser Pro Pro Tyr Pro Arg Pro Pro Pro Thr Tyr Met
    50                  55                  60
Thr Val Gly Asn Gly Ser Thr Ser Glu Ser Ala Thr Ala Leu Met Ala
65                  70                  75                  80
Ser Leu Asn Ala Asp Ser Gly Tyr Gly Gly Ser Ile Ala Ser Gly Ser
                85                  90                  95
```

```
Val Met Asp Gly Asp Glu Gly Ala Gly Trp Arg Ala Asp Met Met Val
            100                 105                 110
Asp Lys Pro Thr Pro Val Pro Asn Thr Ser Ser Ile Gly Asn Trp Asn
        115                 120                 125
Pro Ala Gly Phe Glu Phe Cys Ser Cys Trp Asp Asp Lys Gly
    130                 135                 140
```

<210> 30483
<211> 74
<212> PRT
<213> A.fumigatus

<400> 30483

```
Ile Val Glu Trp Ala Phe Gly Lys Arg Met Thr Pro Ala Glu Arg Leu
1               5                   10                  15
Arg Lys His Gln Arg Ala Leu Asp Arg Thr Gln Arg Glu Leu Asp Arg
            20                  25                  30
Glu Arg Ile Lys Leu Glu Asn Gln Glu Lys Lys Leu Ile Gln Asp Ile
        35                  40                  45
Lys Lys Ser Ala Lys Asn Gly Gln Ile Gly Ala Cys Lys Ile Gln Ala
    50                  55                  60
Lys Asp Leu Val Arg Thr Arg Arg Tyr Val
65                  70
```

<210> 30484
<211> 188
<212> PRT
<213> A.fumigatus

<400> 30484

```
Val His Pro Glu Ile Leu Ser Asp Ala Asp Ala Val Thr Gly His Phe
1               5                   10                  15
Pro Pro Tyr Ser Gly Thr Ala Ala Val Arg Glu Leu Ala Asp Gln Cys
            20                  25                  30
Ala Asp Ile Asp Ile Gln Thr Val Arg Ser Asn Glu Gln Met Met Gln
        35                  40                  45
Ser Met Lys Gly Ala Thr Met Leu Leu Gly Ser Met Asn Arg Gln Met
    50                  55                  60
Asn Leu Pro Ala Leu Gln Arg Ile Ala Met Glu Phe Glu Arg Glu Asn
65                  70                  75                  80
Asp Ile Met Asp Gln Arg Gln Glu Met Met Asp Asp Ala Ile Asp Glu
                85                  90                  95
Ala Thr Gly Leu Glu Gly Glu Glu Glu Glu Gly Glu Asp Ile Val Lys
            100                 105                 110
Glu Val Leu Asp Glu Ile Gly Val Asp Leu Ser Gln Ala Val Cys Phe
        115                 120                 125
Ile Gln Trp Ser Thr Ser His Ser Cys Ala Leu Leu Thr Phe Leu Pro
    130                 135                 140
Gln Leu Gly Glu Thr Pro Ser Asp Ile Gln Lys Thr Ser Val Gly Glu
145                 150                 155                 160
Thr Arg Val Ala Gln Ala Val Gly Ala Gly Gly Gly Thr Ala Ser Asp
                165                 170                 175
Asp Asp Leu Gln Ala Arg Leu Asp Ser Leu Arg Arg
            180                 185
```

<210> 30485

<211> 192
<212> PRT
<213> A.fumigatus

<400> 30485
Ser Ser Ile Ser Val Asp Thr Ser Ala Cys Arg Ser Arg His Thr Ile
1 5 10 15
His Gly Ser Ser Arg Thr His Ser Ser Gly Val Ile His Arg Thr Asn
20 25 30
Asp Asn Gly Met Thr Pro Arg Ile Leu Ser Glu Gln Leu Glu Thr Ala
35 40 45
His Ser Arg Ser Ser Ala Ala Arg Asn Ser Gly Ser His Ser Arg Ser
50 55 60
Leu Ser Ser Asn Lys Thr Val Thr Ala Ile Pro Pro Ser Leu Leu Pro
65 70 75 80
Ser Ala Pro Ala Ser Pro Pro Thr Pro Ala Ser Ser Pro Thr Pro His
85 90 95
Gln Arg Pro Pro Thr Trp Gln Ser Ser Asp Glu Asp Asp Asp Ala Phe
100 105 110
Leu Leu Asn Ser Arg Ile His Phe Thr Ser Leu Ser Ser Ala Lys Lys
115 120 125
Gln Arg Phe Leu Glu Gly Val Leu Gly Leu Cys Asp Ser Gln Leu Leu
130 135 140
Ser Tyr Val Ser Ser Tyr Val Ala Pro Arg Leu Arg Lys Asp Pro Phe
145 150 155 160
Gln Val Phe Pro Thr Glu Leu Cys Leu Arg Val Ser Phe Ser Val Asp
165 170 175
Asp Arg Leu Thr Leu Pro Asp Arg Thr Asp Leu Ser Thr Leu His Tyr
180 185 190

<210> 30486
<211> 174
<212> PRT
<213> A.fumigatus

<400> 30486
Ala Ala Glu Asn Glu Thr Trp Asp Glu Ser Glu His Met Glu Lys Arg
1 5 10 15
Trp Lys Met Ala Leu Lys Arg Lys Tyr Met Val Met Gly Leu Ala Thr
20 25 30
Val Gly Gly Gly Leu Ile Ile Gly Leu Ser Ala Gly Leu Leu Ala Pro
35 40 45
Val Ile Gly Ala Gly Leu Ala Ala Gly Phe Thr Thr Val Gly Ile Ser
50 55 60
Gly Thr Ser Ala Phe Leu Gly Gly Ala Gly Gly Thr Ala Leu Ile Ala
65 70 75 80
Ser Gly Ala Thr Leu Thr Gly Ser Thr Ile Gly Leu Arg Ala Ser His
85 90 95
Arg Arg Thr Gly Ala Val Gln Thr Phe Glu Tyr Arg Pro Leu His Asn
100 105 110
Asn Lys Arg Val Asn Leu Ile Val Ala Ile Ser Gly Trp Met Thr Gly
115 120 125
Lys Val Asp Asp Val Arg Leu Pro Phe Ser Thr Val Asp Pro Ile Met
130 135 140
Gly Asp Ile Tyr Ser Val Leu Trp Glu Pro Glu Met Leu Gln Ser Met
145 150 155 160

Gly Ala Thr Ile Asn Ile Leu Ala Thr Glu Val Ser Val Ser
165 170

<210> 30487
<211> 434
<212> PRT
<213> A.fumigatus

<400> 30487
Ala Leu Thr Gln Gly Leu Gln Gln Val Leu Gly Ser Thr Val Leu Met
1 5 10 15
Ala Leu Met Ala Ser Leu Gln Leu Pro Leu Val Leu Thr Lys Leu Ser
20 25 30
Tyr Leu Ile Asp Asn Pro Trp Asn Val Ser Leu Ala Arg Ala Asn Ala
35 40 45
Ala Gly Leu Ile Leu Ala Asp Ser Leu Met Asp His Asn Leu Gly Lys
50 55 60
Arg Pro Val Thr Leu Leu Gly Phe Ser Leu Gly Ala Arg Val Ile Phe
65 70 75 80
Ser Cys Leu Lys Glu Leu Ala Asp Lys Gly Ala Ser Gly Leu Val Gln
85 90 95
Asn Val Tyr Leu Phe Gly Ala Pro Leu Val Ala Asn Lys Asp Glu Phe
100 105 110
Ile Lys Ala Arg Ser Val Val Ser Gly Arg Phe Val Asn Gly Tyr Ser
115 120 125
Ser Asn Asp Trp Ile Leu Gly Tyr Leu Phe Arg Ala Thr Ser Gly Gly
130 135 140
Ile Met Arg Val Ala Gly Ile Ala Pro Val Glu Gly Ile Pro Gly Leu
145 150 155 160
Glu Asn His Asp Val Thr Asn Leu Val Asn Gly His Met Asp Tyr Arg
165 170 175
Ala Ala Ile Pro Arg Leu Leu Lys Glu Val Gly Trp Glu Val Leu Ser
180 185 190
Glu Glu Phe Ala Glu Ile Glu Asp Pro Asp Pro Glu Asn His Gly Glu
195 200 205
Arg Gln Arg Glu Leu Ile Arg Glu Ile Asp Glu Ala Arg Lys Ala Ala
210 215 220
Glu Ala Gln Pro Glu Lys Lys Arg Phe Gly Leu Phe Lys Arg Gly Lys
225 230 235 240
Leu Ala Glu Lys Lys Gly Trp Glu Thr Tyr Asp Val Lys Arg Asn Asp
245 250 255
Ser Phe Pro Arg Glu Ser Thr Asp Ser Asn Gly Thr Gly Ala Val Leu
260 265 270
Phe Asp Ile Asp Ala Ile Arg Ala Glu Leu Ala Ser Glu Met Ile Glu
275 280 285
Val Lys Gln Leu Glu Ser Thr Leu Pro Pro Met Lys Leu Asp Leu Asn
290 295 300
Ser Pro Ser Thr Gln Ser Pro Ala Ala Ala Thr Pro Ser Glu His Arg
305 310 315 320
Ala Pro Lys Asp Gly Arg Ala Thr Pro Ser Val Pro Gln Thr Pro Asp
325 330 335
Glu Asn Ser Arg Gly His Ser Ala Ser Gln Lys Thr Gln Ser Pro Pro
340 345 350
Pro Arg Gln Glu Gln Ile His Met Ala Phe Asp Thr Ser Tyr Asp Asn
355 360 365
Pro Pro Gln Arg Ser His Ser Ser Phe Glu Pro Ala Ser Tyr Asp Leu

```
    370                 375                 380
Cys Pro Thr Arg Pro Ala Leu Arg Ser Ser Val Thr Met Pro Thr Ser
385                 390                 395                 400
Val Gly Ala Ser Ala Leu Gly Ala Met Ala Leu Glu Pro Asn Ala Trp
                405                 410                 415
Ala Asp His Asp Phe Gly His Gly Glu Glu Gly Glu Ile Ser Met Thr
            420                 425                 430
Phe Glu
```

<210> 30488
<211> 145
<212> PRT
<213> A.fumigatus

<400> 30488

```
Thr Ala Pro Val Arg Leu Cys Glu Ala Leu Arg Pro Ile Val Leu Pro
1               5                   10                  15
Val Lys Val Ala Pro Glu Ala Ile Lys Ala Val Pro Pro Ala Pro Pro
            20                  25                  30
Lys Lys Ala Leu Val Pro Glu Ile Pro Thr Val Val Lys Pro Ala Ala
        35                  40                  45
Arg Pro Ala Pro Met Thr Gly Ala Ser Lys Pro Ala Glu Ser Pro Met
    50                  55                  60
Ile Lys Pro Pro Pro Thr Val Ala Arg Pro Met Thr Ile Tyr Phe Arg
65                  70                  75                  80
Phe Ser Ala Ile Phe Gln Arg Phe Ser Met Cys Ser Asp Ser Ser Gln
                85                  90                  95
Val Ser Phe Ser Ala Ala Tyr Cys Ile Ser Arg Ala Ser Met Thr Arg
            100                 105                 110
Leu Ser Lys Arg Ala Ile Cys Asn Gln Asp Thr Ser Ile Asp Cys Pro
        115                 120                 125
Thr Leu Ser Ser Lys Asp Arg Asp Arg Ala Ser Leu Tyr Thr Ala Gly
    130                 135                 140
Leu
145
```

<210> 30489
<211> 241
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (106)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30489

```
Gly Lys Ala Ser Arg Ile Phe Ser Thr Pro Ser Ile Gly Val Leu Thr
1               5                   10                  15
Glu Thr Lys Ala Arg Pro Tyr Ser Pro Pro Asn Asn Phe Gly Asp Asp
            20                  25                  30
Asn Ser Arg Pro Ala Ser Gln Ala Gly Gly Thr Pro Pro Ser Ala Ala
        35                  40                  45
Gly Val Arg Gly Ala Ser Pro Arg Gly Ile Asp Pro Phe Gly Leu Ser
    50                  55                  60
```

```
Gln Thr Pro Val Gln Gly Asn Thr Asp Thr Ala Gly Gly Ala Ser Leu
65                  70                  75                  80
Gln Ser Pro Ser Arg Ala Asn Ser Thr Ser Ser Pro Ser Ser Gly Met
                85                  90                  95
Asn Pro Ile Phe Gly Lys Leu Glu Gly Xaa Asp Gln Pro Pro Thr Ser
            100                 105                 110
Thr Ser Ser Pro Gly Arg Ala Asp Ser Pro Ser Ser Arg Gln Ala Ala
        115                 120                 125
Val Lys Pro Asn Ala Gly Ala Ile Gly Ser Val Gly Pro Ile Gly Ser
    130                 135                 140
Arg Pro Val Gln Gln Ser Gly Pro Ser Gln Ile Ser Asn Pro Ala Leu
145                 150                 155                 160
Asn Lys Arg Ser Thr Thr Pro Leu Pro Ser Pro Leu Gly Phe Gly Phe
                165                 170                 175
Thr Ser Ser Asp Gly Val Ala Ser Gly Ala Asn Asn Asp Arg Ala Ala
            180                 185                 190
Ser Ser Ala Ser Asn Pro Val Ala Ser Thr Pro Ala Thr Asn Ala Gly
        195                 200                 205
Ala Lys Glu Ser Ser Gly Gly Val Gly Leu Gly Trp Gly Asn Gly Ser
    210                 215                 220
Gly Val Trp Gly Ser Lys Gly Gly Leu Gly Val Gln Ala Ser Val Trp
225                 230                 235                 240
Gly
```

<210> 30490
<211> 65
<212> PRT
<213> A.fumigatus

<400> 30490

```
Val Leu Asn Ala Met Phe Arg Gly Asn Phe Cys Phe Ala Tyr Val Pro
1               5                   10                  15
Val Phe Leu Val Leu Glu Leu Ser Thr Tyr Phe Ile Ser His Val Ile
            20                  25                  30
Glu Leu Ser Val Phe Ser His Lys Ala Thr Tyr Val Leu Ala Val Tyr
        35                  40                  45
Ala Gln Glu Val Val Asp Ala Leu Leu Gly Asp Glu His Val His Ala
    50                  55                  60
Arg
65
```

<210> 30491
<211> 297
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (185)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30491

```
Phe Thr Asp Ile Ile Leu Ala Phe Cys Asp Val Glu Gly Asn Tyr Phe
1               5                   10                  15
Ile Val Leu Ala Tyr Arg Tyr Thr Thr Met Leu Ser Ala Gln Leu Ile
```

```
            20                  25                  30
Asn Leu Trp Thr Ile Ala Val Val Val Phe Ile Ser Phe Leu Phe Gly
        35                  40                  45
Arg Val Arg Tyr His Ile Thr Gln Ile Leu Gly Ile Leu Ile Cys Ile
    50                  55                  60
Gly Gly Met Gly Val Leu Ile Ala Ser Asp His Ile Thr Gly Ser Asn
65                  70                  75                  80
Gly Gly Asp Val Ser Ser Gly Asn Gln Ile Lys Gly Asp Leu Phe Ala
                85                  90                  95
Leu Leu Gly Ala Ser Leu Tyr Gly Leu Thr Asn Thr Gly Glu Glu Tyr
            100                 105                 110
Phe Val Ser Ser Arg Pro Val Tyr Glu Val Leu Gly Gln Met Ala Phe
        115                 120                 125
Phe Gly Met Ile Ile Asn Gly Val Gln Ala Gly Ile Phe Asp Arg His
    130                 135                 140
Ser Phe Gln Ile Ala Val Trp Asn Ser Arg Val Gly Gly Tyr Phe Thr
145                 150                 155                 160
Gly Tyr Thr Leu Cys Leu Ala Phe Phe Tyr Cys Met Ala Pro Leu Leu
                165                 170                 175
Phe Arg Leu Ser Ser Ala Ala Phe Xaa Asn Ile Ser Leu Leu Thr Met
            180                 185                 190
Asn Phe Trp Gly Val Cys Ile Gly Ile Glu Val Phe His Tyr Lys Ile
        195                 200                 205
His Trp Met Tyr Pro Ile Ala Phe Val Leu Ile Ile Val Gly Gln Leu
    210                 215                 220
Ile Tyr Phe Leu Gly Lys Arg Val Leu Gly Glu Ala Arg Lys Pro Trp
225                 230                 235                 240
Leu Gly Lys Asn Gln Glu Arg Gly Phe Ala Gly Leu Phe Thr Ala Lys
                245                 250                 255
Ala Lys Ile Asp Ser Val Arg Ala Lys Leu Ala Ser Asn Asn Asn His
            260                 265                 270
Asn Val Asn Ala Gly Gly Ala His His Asp Asp Arg Thr Ala Ala Thr
        275                 280                 285
Ile Asp Glu Arg His Ser Asn Ala Val
    290                 295
```

<210> 30492
<211> 80
<212> PRT
<213> A.fumigatus

<400> 30492

```
Leu Lys Arg Trp Ile Leu Phe Ile Glu Lys Gly Ser Lys Glu Cys Phe
1               5                   10                  15
Thr Ser Tyr Ala Pro Phe Val Asp Leu Ile Leu Glu Asp His Glu Ala
            20                  25                  30
Leu Ala Lys His Arg His Leu Glu Val Tyr Asp Val Ala Val Phe Val
        35                  40                  45
Thr Val Cys Ala Ile Ser Gln Leu Ser Lys Lys Leu Met Pro Val Ala
    50                  55                  60
Gln Ala Lys His Asp Ile Cys Ser Gln Asn His Lys Asn Lys Thr Pro
65                  70                  75                  80
```

<210> 30493
<211> 74
<212> PRT

<213> A.fumigatus

<220>
<221> UNSURE
<222> (8),(64),(74)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30493

```
Pro Arg Gly Thr Ile Thr Pro Xaa Cys Ser Val Thr Lys Ile Val Thr
1               5                  10                  15
Ala Leu Ala Ala Leu Thr Phe Val Asp Arg Gly Gln Phe Asp Pro Asn
            20                  25                  30
Ala Lys Val Ala Gln Tyr Trp Pro Glu Phe Ala Ala His Gly Lys Gln
        35                  40                  45
Asp Ile Glu Val Arg His Val Leu Ser His Thr Ala Gly Leu Pro Xaa
    50                  55                  60
Trp Asp Pro Pro Leu Ser Arg Glu Glu Xaa
65                  70
```

<210> 30494
<211> 251
<212> PRT
<213> A.fumigatus

<400> 30494

```
Tyr Asn Thr Pro Leu Ala Thr Gln Lys Leu Ile Gln Gln Gln Pro Trp
1               5                  10                  15
Trp Thr Pro Gly Ser Ala Ser Gly Tyr His Leu Ser Thr Gln Gly Phe
            20                  25                  30
Leu Leu Gly Glu Leu Val Arg Arg Val Ser Gly Lys Ser Leu Thr Gln
        35                  40                  45
Phe Ile Ala Asp Glu Leu Ala Ala Pro Leu Gly Ala Asp Phe Gln Leu
    50                  55                  60
Gly Val Ala Glu Lys Asp Trp Pro Arg Thr Ala Asp Ile Val Pro Pro
65                  70                  75                  80
Pro Ala Ala Pro Phe Pro Ala Leu Asp Pro Gln Ser Ile Ala Met Arg
                85                  90                  95
Ala Phe Arg Gly Thr Pro Ala Asp Ala Thr Ala Ser Met Thr Pro Glu
            100                 105                 110
Phe Arg Arg Ala Glu Gln Gly Ala Ser Gly Gly Phe Gly Asn Ala Arg
        115                 120                 125
Ala Ile Asn Lys Ile Ala Ser Met Val Thr Leu Gly Gly Ser Val Asn
    130                 135                 140
Gly Lys Arg Phe Leu Ser Pro Gln Thr Ile Asp Leu Ile Phe Gln Glu
145                 150                 155                 160
Gln Val Ser Gly Val Asp Leu Val Leu Gly Ser Phe Leu Arg Phe Gly
                165                 170                 175
Ile Gly Met Gly Leu Pro Thr Pro Glu Asn Lys Ala Leu Glu Trp Met
            180                 185                 190
Pro Gln Gly Lys Val Cys Phe Trp Gly Gly Trp Gly Gly Ser Ile Ala
        195                 200                 205
Ile Met Asp Leu Asp Arg Lys Val Thr Val Thr Tyr Thr Leu Asn Lys
    210                 215                 220
Met Gly Ala Gly Thr Leu Gly Asn Pro Arg Thr Glu Lys Tyr Val Arg
225                 230                 235                 240
Ala Val Tyr Ala Ala Leu Asp Ala Tyr Lys Pro
```

245 250

<210> 30495
<211> 162
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (51),(107),(117)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30495
Pro Phe Phe Glu Glu His Leu Ala Ser Gly Glu Glu Leu Gly Ala Asp
1 5 10 15
Ile Cys Val Asn Ile Asn Gly Glu Asn Arg Cys Arg Ala Leu Gly Arg
20 25 30
Ala Thr Gln Thr Met His Ala Gln Ser Pro Asp Pro Glu Ala Pro Ser
35 40 45
Pro Arg Xaa Val Pro Ser Pro Arg Ser Ser Leu Leu Ser Pro Arg Ser
50 55 60
Pro Ser Ser Thr Ala Ala Ser Leu Thr Leu Thr Pro Lys Ser Pro Ser
65 70 75 80
Thr Gly Pro Ser Ser Pro Arg Thr Val Ser Arg Thr Ser Arg Ser Ala
85 90 95
Met Cys Ser Ala Ile Leu Pro Ala Tyr Pro Xaa Gly Ile Arg Pro Cys
100 105 110
Pro Ala Lys Asn Xaa Thr Thr Arg Pro Trp Pro Arg Arg Asn Ser Ser
115 120 125
Ser Asn Asn Pro Gly Gly Arg Pro Ala Pro Pro Arg Asp Thr Thr Ser
130 135 140
Arg Pro Arg Ala Ser Tyr Ser Ala Ser Ser Cys Ala Ala Ser Gln Ala
145 150 155 160
Ser Arg

<210> 30496
<211> 234
<212> PRT
<213> A.fumigatus

<400> 30496
Pro His Thr Pro Gln Arg Arg Ile Cys Gln Leu Gly Thr Thr Cys Arg
1 5 10 15
Lys Gly Phe Thr Lys Pro Pro Thr Ser Arg Gln Gly Asn Thr Arg His
20 25 30
Cys Arg Gly Gln Ile Ser Ala Arg Leu Ser Pro Asn Gln Ser Pro Thr
35 40 45
Leu Ser Gln Gly Pro Pro Pro Pro Gly Ala Pro Pro Thr Gln Arg Ala
50 55 60
Pro Ser Val Pro Pro Pro Pro Lys Gly Thr Ala Pro Pro Pro Arg Val
65 70 75 80
Thr Ser Pro Pro Thr Asn Pro Pro Gly Pro Ser Ser Ala Ala Asn Pro
85 90 95
Tyr Ala Ser Leu Pro Gln Ser Pro Pro Met Gly Ser Thr Met Gly Val
100 105 110

```
Pro Pro Pro Pro Ser Ile Pro Arg Gly Pro Ser Pro Tyr Asn Ala Pro
        115                 120                 125
Pro Ser Met Pro Pro Pro Ser Asn Arg Tyr Ala Pro Ser Pro Ala Thr
    130                 135                 140
Gln Ala Ala Ser Pro Gln Leu Ser Thr Arg Ala Pro Val Pro Pro Pro
145                 150                 155                 160
Pro His Ala Ala Ala Ser Pro Tyr Thr Ser Gln Pro Gly Ser His Pro
                165                 170                 175
Pro Pro Ala Asn Pro Tyr Ala Pro Ser Thr Pro Pro Pro Ser Gln Leu
            180                 185                 190
Pro Met Gln Gln Ala Pro Pro Pro Gln Ala Thr Ser Ser Arg Pro Ser
        195                 200                 205
Thr Ala Ser Ser Gln Arg Lys Ala Ala Pro Ala Pro Pro Lys Tyr Arg
    210                 215                 220
Lys Ser Phe Leu Leu Leu Asp Ser His Ser
225                 230

<210> 30497
<211> 646
<212> PRT
<213> A.fumigatus

<400> 30497
Gln Arg Ala Met Ser Ser Val Leu Leu Asp Thr Ser Pro Glu Arg Arg
1               5                   10                  15
Ala Ala Asn Cys Leu Thr Thr Leu Pro Pro Ala Val Lys Thr Glu Gly
            20                  25                  30
Lys Arg Ala Ser Lys Ile Lys Ile Thr Pro Phe Glu Val Asp Glu Thr
        35                  40                  45
Val Ala Lys Ser Thr Glu Thr Phe Glu Asn Ala Leu Lys Glu Gly Asp
    50                  55                  60
Leu Arg Ser Ile Cys Glu Thr Arg Ala Ser Gln Ala Ala Ser Asp Glu
65                  70                  75                  80
Glu Lys Ala Asp Trp Lys Val Ile Glu Ala Leu Ile Ser Glu Asn Pro
                85                  90                  95
Arg Lys Ser Leu Ile Glu Tyr Leu Gly Phe Gln Asp Gln Asp Asp Glu
            100                 105                 110
Thr Ala Asp Lys Leu Ala Gln Leu Gly Leu Asn Lys Glu Glu Asp Glu
        115                 120                 125
Val Asn Gly Lys Ser Ala Lys Glu Ser Arg Gly Ser Gly Ala Lys Lys
    130                 135                 140
His Lys Arg Leu Gln Ser Met Phe Asp Ala Asn Pro Glu Ala Asp Asn
145                 150                 155                 160
Phe Leu Ser Asp Leu Ala Ala Ser Lys Gly Ala Lys Thr Asn Asn Pro
                165                 170                 175
Phe Gln Ile Phe Asn Gly Ser Glu Thr Glu Ala Asp Lys Gly Ile Thr
            180                 185                 190
Arg Ala Leu Leu Leu Gly Asn Phe Glu Lys Ala Leu Asp Val Ala Leu
        195                 200                 205
Lys Glu Asp Arg Met Ser Asp Ala Phe Met Ile Ala Ile Cys Gly Gly
    210                 215                 220
Gln Lys Cys Ile Glu Lys Ala Gln Glu His Tyr Phe Ser Lys Gln Thr
225                 230                 235                 240
Asp Gly Pro Asn Tyr Ile Arg Leu Leu Ala Ser Ile Val Gly Lys Asn
                245                 250                 255
Leu Trp Asp Val Val His Asn Ala Asp Leu Ser Asn Trp Arg Glu Val
```

```
            260                 265                 270
Met Ala Ala Leu Cys Thr Phe Ala Asp Asp Asn Glu Phe Ala Asp Leu
        275                 280                 285
Cys Glu Ala Leu Gly Asp Arg Leu Glu Glu Gln Ile Arg Asn Thr Glu
    290                 295                 300
Asp Lys Ser Leu Arg Lys Asp Ala Ser Phe Cys Phe Leu Ala Gly Ser
305                 310                 315                 320
Lys Leu Glu Lys Val Val Ala Ile Trp Ile Glu Glu Leu Arg Glu Asn
                325                 330                 335
Glu Gln Arg Ser Ile Glu Thr Ala Thr Asp Asp Thr Ser Phe Ser Ile
            340                 345                 350
His Val Arg Ala Leu Gln Ser Leu Ile Glu Lys Val Thr Ile Phe Arg
        355                 360                 365
Gln Val Thr Asn Phe Gln Asp Thr Glu Arg Thr Lys Asp Ala Asp Trp
    370                 375                 380
Lys Leu Ser Met Leu Tyr Asp Lys Tyr Ile Glu Tyr Ala Asp Val Val
385                 390                 395                 400
Ala Thr His Gly Arg Leu Gln Val Ala Gln Lys Tyr Leu Asp Leu Val
                405                 410                 415
Pro Glu Lys His Pro Glu Ala Glu Ile Ala Arg Asn Arg Ile Lys Leu
            420                 425                 430
Ala Met Arg His Ala Thr Pro Gln Arg Ser Gln Gln Thr Val Pro Thr
        435                 440                 445
Thr Arg Thr Pro Val Asn Lys Pro Leu Pro Gln Ala Ser Met Tyr Pro
    450                 455                 460
Ala Gln Pro Ala Phe Ser Ala Pro Ala Ala Ala Pro Ala Ala Ala Thr
465                 470                 475                 480
Thr Ala Pro Arg Asn Pro Tyr Ala Pro Pro Thr Ala Ala Thr Thr Gln
                485                 490                 495
Pro Val Asn Pro Tyr Thr Pro Pro Ser Ala Ala Ala Thr Gln Pro Gln
            500                 505                 510
Thr Ser Asn Ser Tyr Ala Pro Ile Gly Gly Gly Gly Tyr Thr Pro Ala
        515                 520                 525
Gly Tyr Gln Pro Pro Gln Leu Pro Thr Tyr Gly Thr Gln Pro Leu Gly
    530                 535                 540
Gly Ser Val Pro Pro Pro Pro Arg Ala Ser Asn Gln Ser Pro Ala Thr
545                 550                 555                 560
Val Thr Thr Tyr Thr Thr Ala Thr Asn Leu Pro Ala Trp Asn Asp Leu
                565                 570                 575
Pro Glu Gly Leu His Lys Thr Ser Asn Leu Pro Ala Gly Glu His Pro
            580                 585                 590
Pro Leu Pro Gly Ala Asn Ile Ser Ser Pro Phe Pro Gln Pro Val Ser
        595                 600                 605
Asn Pro Phe Ser Gly Ser Ala Thr Thr Trp Ser Pro Ala Tyr Ser Ala
    610                 615                 620
Arg Pro Phe Ser Pro Ser Ser Thr Lys Gly His Gly Ser Ser Ser Pro
625                 630                 635                 640
Ser Asp Leu Ala Thr Tyr
                645
```

<210> 30498
<211> 143
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222>
(48),(49),(50),(52),(54),(55),(62),(63),(74),(82),(93),(95),(100),(107),(117)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30498
Phe Pro Phe Val Val Leu Thr Leu Ile Ser Ser Arg Arg Pro Leu Pro
1 5 10 15
His Pro Arg Arg Arg His Ala Tyr Leu Arg Asp Pro Leu Arg Arg His
20 25 30
Ala Ala Arg Glu Val Ser Ser Ala Ile Leu Leu Gln Ser Ala Arg Xaa
35 40 45
Xaa Xaa Pro Xaa Arg Xaa Xaa Ala Arg Gly Pro Arg Pro Xaa Xaa Arg
50 55 60
Pro Ala Arg Arg Pro Gly Pro Arg Gly Xaa Gly Glu Pro Pro Pro Pro
65 70 75 80
Arg Xaa Pro Ala Gly Pro Arg Gly Pro Ala Pro Ala Xaa Ala Xaa Gly
85 90 95
Arg Arg Arg Xaa Arg Ala Asp Pro Ala Gly Xaa Pro Gly Pro Asp Arg
100 105 110
Pro Thr Gln Gly Xaa Arg Pro Ser Pro Lys Glu Lys Asn Gln Pro Gly
115 120 125
Thr Gly Gly Pro Pro Asn Arg Lys Glu Gly Thr Thr Gln Arg Thr
130 135 140

<210> 30499
<211> 145
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222>
(26),(36),(37),(43),(44),(48),(50),(62),(69),(80),(81),(88),(90),(91),(92),(93)
,(94),(95),(96)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30499
Ser Phe Glu Trp Ser Pro Leu Cys Gly Leu Gly Gly Leu Pro Phe Leu
1 5 10 15
Val Gly Phe Phe Leu Trp Gly Ser Ala Xaa Arg Leu Gly Leu Gly Gly
20 25 30
Pro Ala Pro Xaa Xaa Pro Leu Gly Arg Arg Xaa Xaa Ala Ser Gly Xaa
35 40 45
Gly Xaa Arg Pro Gly Pro Gly Arg Gly Gly Pro Pro Gly Xaa Gly Gly
50 55 60
Gly Gly Ala Pro Xaa Gly Pro Gly Ala Pro Gly Ala Ala Pro Gly Xaa
65 70 75 80
Xaa Gly Ala Gly Ala Pro Gly Xaa Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa
85 90 95
Leu Arg Phe Glu Gly Gly Trp Arg Ser Arg Leu His Ala Leu His Val
100 105 110
Gly Gly Glu Asp Leu Val Asn Arg His Gly Val Cys Gly Asp Val Gly
115 120 125
Ala Val Ala Gly Ser Leu Ser Lys Ser Glu Leu Arg Met Gly Ile Lys
130 135 140

Lys
145

<210> 30500
<211> 217
<212> PRT
<213> A.fumigatus

<400> 30500
Leu Tyr Asn Lys Asn Ser Gln Ala Phe Val Glu Phe Thr Thr Leu Gln
1 5 10 15
Ala Ala Thr Ala Ala Lys His Gln Ile Glu Asn Leu Asn Val Ser Ser
20 25 30
Gln Gly Gly Arg Lys Tyr Met Val His Tyr Thr Asn Pro His Thr Asn
35 40 45
Pro Phe Arg Thr Leu Pro Lys Asp Ala Pro Met Arg Lys Asp Asn Gln
50 55 60
Ala Arg Ser Leu Ser Gly Gly Phe Asn Ser Pro Asn Gln Asn Met Asn
65 70 75 80
Phe Gly Met Asn Asn Met Gly Gly Gly Phe Arg Gly Gly Arg Gly Gly
85 90 95
Phe Asn Ser Arg Gly Gly Met Asn Asn Met Gly Gly Phe Gly Gly Arg
100 105 110
Gly Gly Phe Gln Asn Thr Met Gly Gly Phe Gln Gly Asn Pro Met Val
115 120 125
Gly Gly Phe Gln Gly Asn Pro Met Gly Gly Met Gln Asn Tyr Gly Phe
130 135 140
Asn Asn Arg Ser Asn Met Met Gly Gly Gly Met Arg Gly Gly Pro Gly
145 150 155 160
Gly Met Arg Gly Arg Gly Gly Met Ala Gly Pro Asn Met Met Gly Met
165 170 175
Pro Ala Met Asn Pro Met Gly Gly Met Gly Met Asn Pro Met Ala Gly
180 185 190
Gly Met Asn Pro Met Met Gly Gly Met Gly Gly Asn Met Gly Met Gln
195 200 205
Gly Ala Ser Ser Trp Cys Ser Ile Thr
210 215

<210> 30501
<211> 165
<212> PRT
<213> A.fumigatus

<400> 30501
Tyr Arg Asp Leu Tyr Leu Asn Thr Met Ala Thr Glu Asp Asp Asn Phe
1 5 10 15
Asp Ile Asp Ile Tyr Gly Asp Gly Gly Gly Tyr Asn Thr Asn Asp Gln
20 25 30
Gly Asp Tyr Ile Lys His Glu Asp Thr Glu Leu Ile Leu Asp Ala Pro
35 40 45
Glu Gln Thr Gln Asn Gly Ala Ala Ser Gln Asp Gln Asn Ser Thr Glu
50 55 60
Gln Lys Ala Gln Gln Glu Gln Gly Asp Ser Thr Gly Thr Asn Gly Glu
65 70 75 80
His Val Thr Gln Ala His Ala Val Gln Gln Gln Glu Ala Ser Gln Ala
85 90 95

```
Ala Pro Ala Pro Gln Gln Gly Val Lys Arg Lys Glu His Glu Asp Arg
            100                 105                 110
Pro Ser Asp Pro Asp Ala Thr Thr Ala Leu Leu Ile Ser Asp Leu Tyr
        115                 120                 125
Trp Trp Thr Thr Asp Asp Asp Ile Arg Gly Trp Ile Asn Ala Ala Gly
    130                 135                 140
Cys Glu Asp Glu Leu Lys Asp Val Thr Phe Ser Glu His Lys Val Asn
145                 150                 155                 160
Gly Lys Ser Lys Gly
                165
```

<210> 30502
<211> 153
<212> PRT
<213> A.fumigatus

<400> 30502

```
Arg Lys Val Phe Leu Ser Asp Arg Ala Pro Ala Gly Arg Thr Leu His
1               5                   10                  15
Ala His Val Ser Ala His Ser Thr His His Arg Val His Pro Thr Gly
            20                  25                  30
His Arg Ile His Thr His Thr Thr His Gly Ile His Arg Trp His Ser
        35                  40                  45
His His Ile Arg Pro Ser His Thr Thr Ala Thr Ala His Ser Ala Arg
    50                  55                  60
Thr Ala Thr His Ala Ala Ala His His Ile Ala Thr Val Val Lys Ala
65                  70                  75                  80
Val Val Leu His Pro Ser His Trp Ile Ala Leu Glu Ala Ser Asp His
                85                  90                  95
Arg Val Ala Leu Lys Thr Ala His Cys Val Leu Lys Ala Ala Ser Ala
            100                 105                 110
Pro Lys Ala Ser His Val Val His Ala Ala Ala Ala Val Glu Thr Ser
        115                 120                 125
Pro Ser Ala Ala Glu Ala Ser Ala His Val Val His Ser Lys Ile His
    130                 135                 140
Ile Leu Ile Arg Arg Val Glu Thr Ala
145                 150
```

<210> 30503
<211> 254
<212> PRT
<213> A.fumigatus

<400> 30503

```
Gln Gly Ala Ser Cys Lys Leu Val Met Tyr Arg Val Phe Cys Pro Ile
1               5                   10                  15
Gly His Ala Asp Gly Cys Leu Leu Ala Gln Arg Phe Thr Gly Pro Gln
            20                  25                  30
Ile Leu Arg Met Gln Arg Lys Tyr Pro Glu Val Tyr Lys Lys Thr Ala
        35                  40                  45
Arg Ile Ser Leu Val Ser Ser Phe Leu Ala Ser Leu Leu Leu Gly His
    50                  55                  60
Ile Ala Pro Met Asp Ile Ser Asp Val Cys Gly Met Asn Leu Trp Asp
65                  70                  75                  80
Ile Lys Lys Gly Ala Tyr Asn Glu Lys Leu Leu Gly Leu Cys Ala Gly
                85                  90                  95
```

```
Pro Phe Gly Val Glu Asp Leu Lys Arg Lys Leu Gly Ala Val Pro Glu
            100                 105                 110
Asp Gly Gly Leu Arg Leu Gly Lys Ile Asn Arg Tyr Phe Val Glu Arg
        115                 120                 125
Tyr Gly Phe Ser Ser Asp Cys Glu Ile Leu Pro Ser Thr Gly Asp Asn
    130                 135                 140
Pro Ala Thr Ile Leu Ala Leu Pro Leu Arg Pro Ser Asp Ala Met Val
145                 150                 155                 160
Ser Leu Gly Thr Ser Thr Thr Phe Leu Met Ser Thr Pro Asn Tyr Lys
                165                 170                 175
Pro Asp Pro Ala Thr His Phe Phe Asn His Pro Thr Thr Pro Gly Leu
            180                 185                 190
Tyr Met Phe Met Leu Cys Tyr Lys Asn Gly Gly Leu Ala Arg Glu His
        195                 200                 205
Val Arg Asp Ala Ile Asn Glu Lys Ser Gly Ser Gly Ala Ser Gln Ser
    210                 215                 220
Trp Glu Ser Phe Asp Lys Ile Met Leu Glu Thr Pro Pro Met Gly Gln
225                 230                 235                 240
Lys Thr Glu Ser Gly Pro Met Lys Met Gly Leu Phe Phe Pro
                245                 250
```

<210> 30504
<211> 169
<212> PRT
<213> A.fumigatus

<400> 30504

```
Lys Leu Asp Pro Val Gly Gly Leu Leu Ile Ser Leu Met Val Ile Lys
1               5                   10                  15
Ala Gly Trp Ala Asn Thr Thr Thr Ser Leu Leu Glu Leu Ala Asp Thr
            20                  25                  30
Thr Val Asp Asp Asp Ile Lys Asp Ser Val Arg Asn Ala Ala Ser Lys
        35                  40                  45
Ile Leu Ala Lys Leu Glu Asp Pro His Ala Ile Gln Ile Arg Asp Val
    50                  55                  60
Gln Gly Met Lys Ser Gly Gln Asn Tyr Leu Met Glu Ile Glu Leu Ala
65                  70                  75                  80
Val Pro Gly Ala Trp Ser Leu Ser Arg Ser Arg Glu Ile Glu Glu Thr
                85                  90                  95
Val Arg His Ala Val Gly Ala Gly Val Arg Gly Val Lys Arg Leu Lys
            100                 105                 110
Val Arg Phe Val Pro Ser Glu Leu Glu His Leu Asp Phe Thr Glu Glu
        115                 120                 125
Phe Ile Ala Pro Glu Val Ile Arg Gln Ser Ser Pro Glu Pro Gln Glu
    130                 135                 140
Gly Asp Ile Asp Ala Val His Glu Ala His Ala His Asp His Gln His
145                 150                 155                 160
Lys Gly Asn Glu Asn Arg Lys Thr Arg
                165
```

<210> 30505
<211> 300
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (231)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30505
Ile Leu Pro Gly Lys Leu Trp Ser Ile Ser Pro Asn Val Lys Gly Trp
1 5 10 15
Val Gly Asp Gln Glu Val Lys Asn His Phe Pro Gln Glu Pro Ser Phe
20 25 30
Pro Tyr Pro Glu Ile Ala Arg Glu Arg Asp Lys Leu Val Arg Asp Ser
35 40 45
Phe His Leu Thr Phe Cys Gln Leu Thr Ile Ser Leu Ala Leu Asn Pro
50 55 60
Ser Tyr Cys Leu Arg Ile Phe Phe Tyr Ser Tyr Phe Phe Asn Asn Thr
65 70 75 80
Pro His Phe Val Ser Phe Phe Phe Leu Thr Leu Pro Ser Ser Val Leu
85 90 95
Ser Pro Ala Phe Leu Ser Val Ser Thr Ser Ser Tyr Leu Pro Ala Gly
100 105 110
Leu Asp Ser Gln Ser Phe Asn Ser His Ile Met Thr Ser Gln Gly Pro
115 120 125
Leu Tyr Ile Gly Phe Asp Leu Ser Thr Gln Gln Leu Lys Gly Leu Val
130 135 140
Val Asn Ser Glu Leu Lys Val Val His Ile Ser Lys Phe Asp Phe Asp
145 150 155 160
Ala Asp Ser His Gly Phe Ser Ile Lys Lys Gly Val Leu Thr Asn Glu
165 170 175
Ala Glu His Glu Val Phe Ala Pro Val Ala Leu Trp Leu Gln Ala Leu
180 185 190
Asp Gly Val Leu Asn Gly Leu Arg Lys Gln Gly Leu Asp Phe Ser Arg
195 200 205
Val Lys Gly Ile Ser Gly Ala Gly Gln Gln His Gly Ser Val Tyr Trp
210 215 220
Gly Glu Asn Ala Glu Ser Xaa Leu Lys Ser Leu Asp Ser Ser Lys Ser
225 230 235 240
Leu Glu Glu Gln Leu Ser Gly Ala Phe Ser His Pro Phe Ser Pro Asn
245 250 255
Trp Gln Asp Ala Ser Thr Gln Lys Glu Cys Asp Glu Phe Asp Ala Phe
260 265 270
Leu Gly Gly Pro Glu Gln Leu Ala Glu Ala Thr Gly Ser Lys Ala His
275 280 285
His Val Ser Trp Ser Cys Thr Val Ser Ser Val Gln
290 295 300

<210> 30506
<211> 99
<212> PRT
<213> A.fumigatus

<400> 30506
Glu Glu Arg Cys Lys Arg Phe Cys Leu Thr Gly Leu Ala Val Leu Ile
1 5 10 15
Ser Leu Val Leu Met Val Val Arg Met Arg Leu Met Tyr Arg Ile Asn
20 25 30
Ile Ala Leu Leu Arg Leu Gly Ala Thr Leu Ser Asp Asp Leu Trp Ser
35 40 45

```
Asp Lys Leu Leu Arg Lys Val Gln Met Leu Gln Phe Gly Arg Asp Lys
    50                  55                  60
Ser Asp Leu Glu Pro Leu Asp Pro Ala His Thr Gly Pro Asp Gly Met
65                  70                  75                  80
Ser Asn Gly Leu Leu Asn Leu Ala Arg Ser Thr Glu Arg Pro Ser Pro
                85                  90                  95
Arg His Arg
```

<210> 30507
<211> 186
<212> PRT
<213> A.fumigatus

<400> 30507

```
Thr Leu Thr Ser Leu Gln Trp Tyr Asp Pro Asp Ala Val Thr Thr Arg
1               5                   10                  15
Asn Gly Val Leu Glu Ile Arg Phe Asp Ser Phe Pro Asn His Glu Leu
            20                  25                  30
Lys Tyr Arg Ser Gly Met Val Gln Ser Trp Asn Lys Leu Cys Phe Ser
        35                  40                  45
Gly Gly Arg Leu Glu Ala Ser Ile Ser Leu Pro Gly Ala Gly Asp Val
    50                  55                  60
Ser Gly Phe Trp Pro Gly Phe Trp Ala Met Gly Asn Leu Ala Arg Pro
65                  70                  75                  80
Gly Tyr Ala Ala Thr Thr Glu Gly Met Trp Pro Tyr Ser Tyr His Asp
                85                  90                  95
Lys Cys Asp Ala Gly Ile Thr Pro Asn Gln Ser Ser Thr Asp Gly Ile
            100                 105                 110
Ser Tyr Leu Pro Gly Met Arg Leu Pro Ala Cys Thr Cys Ala Gly Glu
        115                 120                 125
Asp His Pro Ser Pro Gly Lys Ser Arg Ser Ala Pro Glu Ile Asp Val
    130                 135                 140
Ile Glu Ala Ser Val Thr Ala Leu Asn Asn Asn Pro Asn Ala Val Ile
145                 150                 155                 160
Gly Ser Val Ser Gln Ser Leu Gln Met Ala Pro Phe Asp Ile Trp Tyr
                165                 170                 175
Met Pro Asp Tyr Gly Lys Cys Tyr Ser Leu
            180                 185
```

<210> 30508
<211> 74
<212> PRT
<213> A.fumigatus

<400> 30508

```
Pro Gln Trp Leu Pro Arg Thr Ala Val Lys Gly Met Arg Asp Lys Ser
1               5                   10                  15
Gly Pro Lys Cys Asn Pro Ser Asp Pro Leu Cys Leu Glu Val Arg Glu
            20                  25                  30
Arg Pro Leu Leu Ser Asn Ile Arg Arg Gly Leu Ile Asp Pro Asp Thr
        35                  40                  45
Pro Asp Ser Ala Lys Thr Lys Lys Ala Ala Asp Gly Lys Glu Trp Ile
    50                  55                  60
Leu Val Val Ser Arg Gly Pro Phe Phe Leu
65                  70
```

<210> 30509
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30509
Leu Phe Val Thr Ser Leu Asp Gly Lys Leu Thr Ser Met Ile Gln Phe
1 5 10 15
Ser Asp Glu Phe Asn Thr Glu Gly Arg Thr Phe Tyr Glu Gly Asp Asp
20 25 30
Pro Phe Tyr Gln Ala Val Asp Leu Trp Tyr Gly Val Thr Gln Asp Leu
35 40 45
Glu Val Ser His Glu Thr Cys Ile Ala Asn Trp Ser Lys His
50 55 60

<210> 30510
<211> 131
<212> PRT
<213> A.fumigatus

<400> 30510
Arg Asn Tyr Ile Arg Asn Leu Leu Thr Asp Phe Arg Gly Thr Thr Phe
1 5 10 15
Leu Ile Gly Pro Phe Leu Gly Pro Ala Leu Ala Gly Tyr Ile Gly Ala
20 25 30
Gly Ser Asn Trp Lys Ala Ser Phe Gly Val Leu Thr Ala Phe Tyr Ala
35 40 45
Leu Ser Thr Ile Leu Ile Phe Leu Phe Gly Tyr Glu Thr Tyr Tyr Ala
50 55 60
Arg Gly His Gln Cys Gln Arg Asn Ser Arg Leu Gln Ser Met Phe Gly
65 70 75 80
Ile Lys Asn His Ser Leu Pro Val Gly Arg Thr Leu Ala His Trp Thr
85 90 95
Lys Ile Leu Ala Ile Tyr Ile Phe Lys Phe Pro Leu Leu Leu Thr Gly
100 105 110
Ile Ala Thr Met Val Asn Phe Cys Trp Pro Ile Gly Gly Trp Ser Asp
115 120 125
Pro Ala Thr
130

<210> 30511
<211> 142
<212> PRT
<213> A.fumigatus

<400> 30511
Asn Thr Leu Cys Ala Leu Asn Gln Leu Leu Arg Gln Glu Glu Asn Thr
1 5 10 15
Ala Ser Glu Gln Thr Met Thr Leu Gln Val Pro Leu Leu Gly Arg Leu
20 25 30
His Ile Arg Arg Asn Val Lys Pro Pro Gln Ser Thr Ala Ile Asn Ala
35 40 45
Lys Ala Ser Ser Thr Leu Ala Pro Ser Ser His Ala Leu Ser Gln Gly
50 55 60
Asn Val Ser Ala Ser Phe Leu Gln Gly Pro Val Gly Cys Gln Leu Pro

```
65                  70                  75                  80
Thr Val Met Asp Gly Ala Thr Val Val Gln Asn Gly Trp Gly Trp Asn
                85                  90                  95
Asp Phe Ser Trp Ser Ile Glu Asp Thr His Gln Ser Leu Phe Asn Asp
            100                 105                 110
Ala Phe Met Gly Asp Ser Met Gly Gln Ala Ala Leu Trp Tyr Asn Thr
        115                 120                 125
Ser Asn Asn Ser Leu Ser Thr Trp Asn Thr Phe Asn Ile Leu
    130                 135                 140
```

<210> 30512
<211> 202
<212> PRT
<213> A.fumigatus

<400> 30512

```
Arg Pro Ala Ser Tyr Thr Arg Asp Thr Cys Ser Pro Pro Pro Arg Ser
1               5                   10                  15
Ser Thr His Trp Arg Ile Ala Gly Thr Ala Gly Gly Glu Ser Asn Phe
            20                  25                  30
Asp Pro Ile Arg Gly Phe Phe Asn Glu Asp Gly Phe Phe Ala Glu Arg
        35                  40                  45
Met Gly Trp His Leu Pro Gly Phe Asp Asp Ser Ala Trp Thr Ser Glu
    50                  55                  60
Asn Ser Ala Thr Ser Ala Ser Ser Ala Leu Ser Phe Thr Gly Ala Thr
65                  70                  75                  80
Val Arg Phe Phe Arg Ser Val Val Pro Leu Asn Ile Pro Ala Gly Leu
                85                  90                  95
Asp Val Ser Ile Ser Phe Val Leu Ser Thr Pro Thr Ala Ala Pro Lys
            100                 105                 110
Gly Tyr Arg Ala Gln Leu Phe Val Asn Gly Tyr Gln Tyr Gly Arg Tyr
        115                 120                 125
Asn Pro His Ile Gly Asn Gln Val Val Phe Pro Val Pro Pro Gly Ile
    130                 135                 140
Leu Asp Tyr Gln Gly Asp Asn Thr Ile Gly Leu Ala Val Trp Ala Gln
145                 150                 155                 160
Thr Glu Glu Gly Ala Gly Ile Gln Val Asp Trp Lys Val Asn Tyr Val
                165                 170                 175
Ala Asp Ser Ser Leu Ser Val Ala Gly Phe Gly Lys Gly Leu Arg Pro
            180                 185                 190
Gly Trp Thr Glu Glu Arg Leu Lys Phe Ala
        195                 200
```

<210> 30513
<211> 71
<212> PRT
<213> A.fumigatus

<400> 30513

```
Pro Gly Cys Leu Tyr Phe Leu Ser Ala Trp Tyr Thr Arg Lys Glu Leu
1               5                   10                  15
Gly Phe Arg Thr Ala Ala Leu Tyr Ser Gly Ser Leu Ile Ser Gly Ala
            20                  25                  30
Phe Ser Gly Leu Ile Ala Ala Gly Ile Thr Asp Gly Met Glu Asn Val
        35                  40                  45
Lys Gly Leu Arg Ala Trp Tyr Gly Ser Leu Phe Leu Phe Ala Pro Ser
```

```
    50                  55                  60
Ser Val Val Ala Gln Ser Cys
65                  70

<210> 30514
<211> 100
<212> PRT
<213> A.fumigatus

<400> 30514
Leu Arg Ser Leu Ala Asp Phe Ser Arg Arg Trp Leu Phe Ile Ile Glu
1               5                   10                  15
Gly Ala Ile Thr Ile Val Val Ala Phe Ile Ala Met Trp Ile Leu Pro
            20                  25                  30
Asn Phe Pro Arg Thr Thr Thr Trp Leu Ser Glu Glu Glu Lys Gln Leu
        35                  40                  45
Ala Thr Trp Arg Leu Glu Glu Asp Ile Gly Glu Asp Asp Trp Val Asp
    50                  55                  60
Ser Glu Gln Gln Ser Leu Leu His Gly Ala Lys Leu Ala Phe Thr Asp
65                  70                  75                  80
Leu Lys Thr Trp Ile Leu Val Ser Arg Tyr Ser Leu Pro Leu Thr Arg
                85                  90                  95
Asn Gly Thr Asp
            100

<210> 30515
<211> 140
<212> PRT
<213> A.fumigatus

<400> 30515
Cys Arg Val Ser Val Ile Asn Arg Leu Ser Leu Cys His Lys Leu Thr
1               5                   10                  15
Val Val Val Pro Ser Asn Leu Met Leu Asn Lys Phe Gly Lys Pro Ala
            20                  25                  30
Ile Tyr Leu Pro Cys Ala Met Ile Leu Trp Gly Ile Ile Ser Thr Ala
        35                  40                  45
Thr Ala Gly Ala Gln Asn Phe Ala Gly Leu Val Met Thr Arg Phe Phe
    50                  55                  60
Leu Gly Phe Ile Glu Ala Ala Tyr Phe Val Arg Leu Ser Asn Asn Asp
65                  70                  75                  80
Tyr His Gly Arg Asp Ser Phe Ala Asp Cys Ile Val Ala Arg Leu Pro
                85                  90                  95
Leu Leu Ser Glu Cys Leu Val His Ser Gln Arg Ala Gly Leu Pro His
            100                 105                 110
Cys Cys Pro Leu Leu Trp Phe Ser Asp Leu Arg Cys Phe Leu Trp Ser
        115                 120                 125
His Cys Cys Trp Tyr His Arg Trp Tyr Gly Glu Cys
    130                 135                 140

<210> 30516
<211> 158
<212> PRT
<213> A.fumigatus

<400> 30516
```

```
Met Leu His Ile Leu Cys Ile Val Ser Ser Ala Ser Val Thr Asn Phe
1               5                  10                  15
Phe Pro Thr Val Val Glu Thr Leu Asn Tyr Gly Arg Ile Glu Thr Leu
            20                  25                  30
Leu Leu Thr Ala Pro Pro Tyr Cys Leu Ala Val Ile Ser Ala Phe Phe
        35                  40                  45
Asn Ala Trp His Ser Asp Arg Thr Gly Glu Lys Tyr Phe His Ile Thr
    50                  55                  60
Ala Pro Leu Tyr Ile Ser Val Ala Ala Phe Ile Ile Ala Ala Thr Thr
65                  70                  75                  80
Thr Gly Val Ala Pro Arg Tyr Leu Ser Met Met Leu Met Val Pro Ser
                85                  90                  95
Leu Tyr Ala Gly Tyr Val Val Ala Leu Gly Trp Ile Ser Ser Thr Leu
            100                 105                 110
Pro Arg Pro Ala Ser Lys Arg Ala Ala Ala Leu Ala Ala Ile Asn Met
        115                 120                 125
Val Ser Asn Ala Ser Ser Ile Tyr Ala Ser Tyr Met Tyr Pro Asp His
    130                 135                 140
Asp Ala Pro Arg Phe Ser Thr Ser Gln Tyr Phe Ser Ile Ile
145                 150                 155
```

<210> 30517
<211> 64
<212> PRT
<213> A.fumigatus

<400> 30517

```
Ser Leu Leu Ser Asp Arg Phe Ile Val Thr Ala Met Ser Val Asn Cys
1               5                  10                  15
Val Thr Ala Phe Ile Ala Ile Leu Ser Ala Thr Leu Leu Arg Ile Ile
            20                  25                  30
Leu Val Arg Leu Asn Lys Lys Leu Asp Arg Gly Glu Ala Leu Asn Asp
        35                  40                  45
Gly Ser Val Pro Gly Gln Ala Ser Ser Arg Gly Phe Arg Phe Leu Val
    50                  55                  60
```

<210> 30518
<211> 260
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (248)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30518

```
Phe Leu Tyr Cys Ser Leu Phe Pro Phe Ile Leu Leu Ser Thr Ile Ala
1               5                  10                  15
Leu Asp Ser Phe Gln Ile Leu Arg Asp Asp Thr Arg Asn Ile Leu Ile
            20                  25                  30
Pro His Ser Leu Leu Ser Gly Ile Ser Ser Cys His Asp Gln Ala Val
        35                  40                  45
Ile Pro Glu Val Gly Val Ser Arg Ala Ala Met Ala Met Gln Pro Ser
    50                  55                  60
Tyr Pro Ala Pro Phe Gly Ala Ala Ala Ile Ser Ser Ser Ala Gly Gln
```

```
65                  70                  75                  80
Glu Val Ala Ser Thr Ile Arg Arg Gln Phe Thr Asp Ala Asp Ala Asp
                85                  90                  95
Arg Ile Val Glu Thr Pro Leu Gly Glu Lys Ala Asp Ser Ser Asp Thr
            100                 105                 110
Ala Gly Pro Asp Ser Glu Asp Gly Ile Asp Gln Glu Gly His Asp Lys
        115                 120                 125
Ile Thr Ala Leu Ala Arg Ser Leu Ser Gln Ile Ser Gln Lys Ser Ala
    130                 135                 140
Gly Pro Thr Asn Thr Phe Leu Asp Pro Ser Ser Asp Pro Glu Leu Asp
145                 150                 155                 160
Pro Asn Ser Asp Lys Phe Ser Ser Arg Lys Trp Met Lys Asn Leu Leu
                165                 170                 175
His Ile Lys Thr Arg Asp Pro Asp Arg Tyr Pro Arg Arg Thr Ala Gly
            180                 185                 190
Val Ser Phe Arg Asn Leu Asn Ala Tyr Gly Tyr Gly Thr Ala Ala Asp
        195                 200                 205
Tyr Gln Ala Asp Val Ala Asn Met Trp Leu Lys Gly Phe Gly Trp Leu
    210                 215                 220
Arg Ser Ile Leu Gly Cys Arg Asn Arg Val Arg Ile Asp Ile Leu Arg
225                 230                 235                 240
Asn Phe Glu Gly Phe Val Arg Xaa Gly Glu Met Leu Val Val Leu Gly
                245                 250                 255
Arg Pro Gly Arg
            260
```

<210> 30519
<211> 490
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (39)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30519

```
Leu Cys Arg Ala His Ser Gly Cys Ser Thr Phe Leu Lys Thr Ile Ala
1               5                   10                  15
Gly Glu Thr His Gly Leu Trp Leu Asp Lys Gly Thr His Ile Gln Tyr
            20                  25                  30
Glu Gly Ile Ser Trp Asp Xaa Met His Ser Arg Phe Arg Gly Glu Val
        35                  40                  45
Ile Tyr Gln Ala Glu Thr Glu Ile His Phe Pro Gln Leu Thr Ala Gly
    50                  55                  60
Glu Thr Leu Leu Phe Ala Ala Gln Ala Arg Thr Pro Ala Asn Arg Phe
65                  70                  75                  80
Pro Gly Val Ser Arg Glu Gln Tyr Ala Thr His Met Arg Asp Val Val
                85                  90                  95
Met Thr Met Leu Gly Leu Ser His Thr Val Asn Thr Arg Ile Gly Asn
            100                 105                 110
Glu Tyr Ile Arg Gly Val Ser Gly Gly Glu Arg Lys Arg Val Ser Ile
        115                 120                 125
Ala Glu Thr Ile Leu Cys Gly Cys Pro Leu Gln Cys Trp Asp Asn Ser
    130                 135                 140
Thr Arg Gly Leu Asp Ser Ser Thr Ala Leu Glu Phe Val Lys Asn Leu
```

```
145                 150                 155                 160
Arg Leu Ser Thr Asp Tyr Thr Gly Ser Thr Ala Ile Val Ala Ile Tyr
                165                 170                 175
Gln Ala Ser Gln Ala Ile Tyr Asp Ile Phe Asp Lys Val Ile Val Leu
            180                 185                 190
Tyr Glu Gly Arg Gln Ile Tyr Phe Gly Lys Ala Ser Asp Ala Lys Arg
        195                 200                 205
Phe Phe Ile Asp Met Gly Phe Asp Cys Pro Asp Arg Gln Thr Thr Gly
    210                 215                 220
Asp Phe Leu Thr Ser Leu Thr Ser Pro Ser Glu Arg Leu Val Arg Lys
225                 230                 235                 240
Gly Tyr Glu Ala Leu Val Pro Arg Thr Pro Asp Glu Ser Ala Ala Arg
                245                 250                 255
Trp Arg Glu Ser Ala Glu Arg Gln Arg Leu Leu Ala Asp Ile Glu Ala
            260                 265                 270
Phe Glu Asn Glu Ser Pro Leu Gly Gly Ser Lys Tyr Lys Glu Phe Thr
        275                 280                 285
Val Ser Arg Ala Ala Glu Lys Ala Lys Gly Thr Arg Ala Pro Ser Pro
    290                 295                 300
Tyr Thr Leu Ser Tyr Pro Met Gln Ile Arg Leu Cys Leu Arg Arg Gly
305                 310                 315                 320
Phe Leu Arg Leu Lys Gly Asp Met Ser Met Thr Leu Ala Thr Val Ile
                325                 330                 335
Gly Asn Ser Ile Met Ala Phe Ile Val Ser Ser Val Phe Tyr Asn Leu
            340                 345                 350
Asp Gln Thr Thr Asn Ser Phe Phe Ser Arg Gly Ala Leu Leu Phe Phe
        355                 360                 365
Ala Ile Leu Leu Asn Ala Phe Ala Ser Ser Leu Glu Ile Leu Thr Leu
    370                 375                 380
Trp Gln Gln Arg Pro Ile Val Glu Lys His Asp Lys Tyr Ala Leu Tyr
385                 390                 395                 400
His Pro Ser Ala Glu Ala Ile Ser Ser Met Ile Val Asp Leu Pro Ser
                405                 410                 415
Lys Phe Leu Val Ser Val Val Phe Asn Leu Ile Leu Tyr Phe Met Thr
            420                 425                 430
Asn Leu Arg Arg Thr Pro Gly His Phe Phe Val Phe Tyr Leu Phe Ser
        435                 440                 445
Val Thr Ile Thr Leu Thr Met Ser Asn Ile Phe Arg Trp Ile Gly Ala
    450                 455                 460
Ile Ser Arg Ser Met Ala Gln Ala Met Val Pro Ser Ser Ile Leu Ser
465                 470                 475                 480
Ser Ala His Met Gln Ser Thr Ser Leu Pro
                485                 490
```

<210> 30520
<211> 137
<212> PRT
<213> A.fumigatus

<400> 30520

```
Ile Asn Ala Leu Leu Asp Gln Leu Pro Gln Arg Thr Gln Leu Ser Glu
1               5                   10                  15
Glu Met Asp Thr Val Leu Asn Ser Leu Glu Asp Val Val Asn Leu Ala
            20                  25                  30
Ile Cys Cys Glu Pro Ser Asn Ala Lys Thr Asn Ala Ala Val Ser Ala
        35                  40                  45
```

```
Leu Val Ala Ala Ala Gln Cys Ser Lys Asp Val Ala Gly Phe Gln Arg
    50                  55                  60
Gly Arg Gly Thr Gly Thr Thr Arg Arg Gln Cys Asn Val Leu Gln Ser
65                  70                  75                  80
His Gln Lys Arg Leu Ala Leu Asn Ile Ser Glu Arg Asp Val Asp Ala
                85                  90                  95
Ser Arg Val Met Ala Leu Ser Ile Pro Ile Glu Arg Gly Val Phe His
            100                 105                 110
Arg Gln Lys Ser Ile Gln Gln Thr Leu Arg Gln Pro Leu Asn Val Leu
        115                 120                 125
Pro Ile Ile Leu Leu Asp Val Leu Val
    130                 135
```

<210> 30521
<211> 162
<212> PRT
<213> A.fumigatus

```
<400> 30521
Ser Arg Val Gly Ser Asn Gly Arg Leu Glu Ile Leu His Pro Asp Gln
1               5                   10                  15
Ser Phe Ile Leu Asn Gly Gln Ile Cys Asp Phe Glu Ser Leu Ile Leu
            20                  25                  30
Lys Met Pro Ala Ala Val Gln Asp Thr Leu Val Leu Ser Leu Arg Cys
        35                  40                  45
Asp Asn Val Leu Leu Leu Ala Gly Thr Thr Lys Glu Ser Gly His Thr
    50                  55                  60
Leu Asp Ala His Val Val Thr Phe Gly Gly Ala Thr Arg Lys Asp Asp
65                  70                  75                  80
Phe Leu Trp Ile Arg Pro Asn Gln Phe Arg Asn Ile Phe Ser Gly Leu
                85                  90                  95
Phe Asp Ser Leu Leu Arg Leu Pro Thr Ile Cys Val Ser Pro Gly Met
            100                 105                 110
Arg Val Ser Val Asp Thr Gly Glu Ile Gly Lys His Ser Ile Glu Asn
        115                 120                 125
Thr Arg Ile Asn Arg Arg Ser Gly Leu His Ile Gln Ile Asn Arg Pro
    130                 135                 140
Cys Ser Leu Ile His Asn Ser Cys Leu Phe Gln Asn Thr Arg Arg Gly
145                 150                 155                 160
Thr His
```

<210> 30522
<211> 119
<212> PRT
<213> A.fumigatus

```
<400> 30522
Ser Ala Ser Trp Leu Ser Thr Met Arg Leu Val Leu Phe Asn Pro Trp
1               5                   10                  15
Glu Glu Ile Gly Lys Leu Cys Arg Ala Lys Lys Val Phe Phe His Thr
            20                  25                  30
Asp Ala Ala Gln Ala Val Gly Lys Ile Pro Leu Asp Val Asn Lys Leu
        35                  40                  45
Asn Ile Asp Leu Met Ser Ile Ser Ser His Lys Ile Tyr Gly Pro Lys
    50                  55                  60
```

```
Gly Ile Gly Ala Cys Tyr Val Arg Arg Arg Pro Arg Val Arg Leu Glu
65                  70                  75                  80
Pro Ile Ile Ser Gly Gly Gly Gln Glu Arg Gly Leu Arg Ser Gly Thr
                85                  90                  95
Leu Ala Pro His Leu Val Val Gly Phe Gly Glu Ala Cys Arg Ile Ala
            100                 105                 110
Ser Gln Asp Met Glu Val Ser
        115
```

<210> 30523
<211> 293
<212> PRT
<213> A.fumigatus

<400> 30523

```
Ile Met Ser Ser Val Thr Pro Ser Val Leu Arg Gln Ala Ser Arg Ala
1               5                   10                  15
Tyr Ala Arg Arg Leu Ser Ser Thr Gln His Gly Ser Leu Ala Thr Ala
            20                  25                  30
Ser Phe Pro Arg Arg Ala Leu Ala Thr Ser Ser Gly Ala Ala Ser Arg
        35                  40                  45
Arg Thr Tyr Val Thr Glu Thr Lys Ala Gly Asn Ala Gln Val Ser Ile
    50                  55                  60
Asp Thr Ala Ile Lys Gln Glu Gln Lys Asn Phe Ile Lys Gln Thr Gly
65                  70                  75                  80
Leu Glu Pro Gly Lys Val Glu Leu Pro Ala Ser Gly Ile Ser Gly Asp
                85                  90                  95
Ala Ser Met Ser Pro Ser Ala Gly Ile Leu Lys Gln Ala Thr Val Met
            100                 105                 110
Asp Gln Gly Thr Arg Pro Ile Tyr Leu Asp Met Gln Ala Thr Thr Pro
        115                 120                 125
Val Asp Pro Arg Val Leu Asp Ala Met Leu Pro Tyr Leu Thr Gly Ile
    130                 135                 140
Tyr Gly Asn Pro His Ser Arg Thr His Ala Tyr Gly Trp Glu Ser Glu
145                 150                 155                 160
Lys Ala Val Glu Gln Ala Arg Glu Tyr Ile Ala Lys Leu Ile Gly Ala
                165                 170                 175
Asp Pro Lys Glu Ile Ile Phe Thr Ser Gly Ala Thr Glu Ser Asn Asn
            180                 185                 190
Met Ser Ile Lys Gly Val Ala Arg Phe Phe Gly Arg Ser Gly Lys Lys
        195                 200                 205
Lys His Ile Ile Thr Ser Gln Thr Glu His Lys Cys Val Leu Asp Ser
    210                 215                 220
Cys Arg His Leu Gln Asp Glu Gly Phe Glu Val Thr Tyr Leu Pro Val
225                 230                 235                 240
Gln Asn Lys Arg Leu Ile Arg Met Glu Asp Leu Glu Ala Ala Ile Arg
                245                 250                 255
Pro Asp Thr Ala Leu Val Ser Ile Met Ala Val Asn Asn Glu Ile Gly
            260                 265                 270
Val Ile Gln Pro Leu Gly Arg Asp Arg Lys Ala Leu Pro Cys Glu Glu
        275                 280                 285
Gly Phe Leu Pro His
    290
```

<210> 30524
<211> 144

<212> PRT
<213> A.fumigatus

<400> 30524
His Ile Glu Gln Tyr Asp Arg Lys His Val Glu Arg Leu Ser Lys Arg
1 5 10 15
Leu Leu Asp Gly Leu Leu Ala Met Glu His Thr Thr Leu Asn Gly Asp
20 25 30
Ala Glu Arg His Tyr Pro Gly Cys Val Asn Val Ser Phe Ala Tyr Ile
35 40 45
Glu Gly Glu Ser Leu Leu Met Ala Leu Lys Asp Ile Ala Leu Ser Ser
50 55 60
Gly Ser Ala Cys Thr Ser Ala Ser Leu Glu Pro Ser Tyr Val Leu Arg
65 70 75 80
Ala Leu Gly Ser Ser Asp Glu Ser Ala His Ser Ser Ile Arg Phe Gly
85 90 95
Ile Gly Arg Phe Thr Thr Asp Ser Glu Ile Asp Tyr Val Leu Lys Ala
100 105 110
Val Gln Asp Arg Val His Phe Leu Arg Glu Leu Ser Pro Leu Trp Glu
115 120 125
Leu Val Gln Glu Gly Ile Asp Leu Asn Thr Ile Gln Trp Ser Gln His
130 135 140

<210> 30525
<211> 314
<212> PRT
<213> A.fumigatus

<400> 30525
Leu Pro Ala Arg Met Gly Pro Ser Leu Gly Glu Asn Thr Val Ala Arg
1 5 10 15
Ser Ile Leu Arg Lys Gln Gln Ser Phe Ser Gln Pro Asn Pro Gln Ser
20 25 30
Ser Pro His Thr Tyr Ser Ser Ser Ala Ser Pro Ser Asp Phe Tyr Arg
35 40 45
Gln Asp Pro His Tyr Gly Gln Asp Thr Pro Phe Ser Glu Met Asp Ile
50 55 60
Pro Ile Thr Ala Ile His Leu Gly Pro Val Glu Arg Asn Cys Ser Gln
65 70 75 80
Ser Val Pro Pro Asn Met Arg Phe Gly His His Met Gly Asp Pro Ile
85 90 95
Pro Arg Pro Ala Ser Thr Lys Val Glu Asn His Arg Arg Arg Pro Ser
100 105 110
His Asn Asn Asn Pro Ala Leu Cys Pro Leu Asp Glu Leu Glu Ala Leu
115 120 125
Gly Pro Ile Asp Thr Pro Glu Asp Leu Asp Arg Thr Pro Arg Ala Ala
130 135 140
His Cys Lys Thr Pro Phe Ser Pro Asp Gly Pro His Ala Asn Asp Ile
145 150 155 160
Ile His Ser Gly Trp Met Lys Lys Arg Lys Thr Thr Arg Leu Leu Arg
165 170 175
His Glu Trp Glu Asp His His Phe Thr Leu Arg Gly Thr Gln Leu Ala
180 185 190
Met Tyr Pro Asp Glu Asp Ala Ser Arg Arg Asp Ser Lys Ala Leu Glu
195 200 205
Tyr Ile Asp Val Asp Asp Tyr Ala Val Ala Cys Ser Ser Leu Ala Ser

```
    210                 215                 220
Ser Ser Lys Leu Thr Ala Ala Phe Lys Lys Thr Val Leu Lys Arg Arg
225                 230                 235                 240
Asp Asn Thr Gln Gly Glu Ala Ala Phe Ala Phe Cys Leu Ile Pro Ser
                245                 250                 255
Pro Asn Ala Gly Ser Asp Arg Lys Ser Phe Phe Asn Gln Ala Ala Lys
            260                 265                 270
Thr His Arg Phe Ala Val Lys Thr Arg Glu Glu Arg Ile Asp Trp Met
        275                 280                 285
Arg Glu Leu Met Leu Ala Lys Ala Leu Arg Arg Gly Arg Glu Ser Gly
    290                 295                 300
Ala Thr Leu Asn Leu Asn Gly Asn Pro Leu
305                 310
```

<210> 30526
<211> 85
<212> PRT
<213> A.fumigatus

<400> 30526

```
Leu Leu Leu Gly Val Lys Ser Ser Leu Phe Leu Met Val Ile Asn Leu
1               5                   10                  15
Ser Trp Leu Lys Pro Asn Pro Leu Arg Arg Leu Val Ile Leu Met Ala
            20                  25                  30
Leu Ala Glu Gly Asp Val Asp Tyr Lys Gly Ser Ala Leu Cys Glu Arg
        35                  40                  45
Leu Ser Ser Ser Cys Asp Asp Ala Tyr Tyr Lys Val Val Pro Ser Asn
    50                  55                  60
Thr Tyr Ile Thr Tyr Pro Glu Tyr Val Tyr Ala Leu Met Arg Met Asp
65                  70                  75                  80
Asp Leu Thr Phe Asp
                85
```

<210> 30527
<211> 69
<212> PRT
<213> A.fumigatus

<400> 30527

```
Ser Lys Asp Tyr Ile Thr Pro Leu Gln Val Val Thr Ser Arg Asn Ser
1               5                   10                  15
Arg Asp Glu Ser Gln Asn Val Ser Ile Thr Tyr Ser Cys Ser Val Asn
            20                  25                  30
Pro Ala His Asn Ser Ile Asn Ser Asn Ser Asn Lys Lys Lys Lys Lys
        35                  40                  45
Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Glu Lys Lys
    50                  55                  60
Lys Lys Lys Lys Asn
65
```

<210> 30528
<211> 156
<212> PRT
<213> A.fumigatus

<400> 30528

```
Pro Arg Arg Gly Ser Pro Gly Arg Arg Glu Pro Ala Ala Gly Arg Ala
1               5                  10                  15
Gly Ala Leu Val Arg Asn Thr Asp Leu Pro Leu Pro Ala Gly Gly Gly
            20                  25                  30
Ala Cys Pro Arg Gly Ala Gly Asp Asp Arg Gly Arg Ala Val Arg Gln
        35                  40                  45
Ser Ala Pro Ala Gly Cys Gly Ala Gly Ala Ala Ser Gly Ala Asp Glu
    50                  55                  60
Gly Gly Asp Gly Glu Cys Ala Gly Gly Ala Val Ala Asp Gly Gly Gly
65                  70                  75                  80
Cys Asp Arg Cys Ala Arg Val Trp Ala Trp Gly Pro Arg Leu Gly Ala
                85                  90                  95
Ala Val Leu His Arg Ser Asp Cys Asp Trp Gly Gly His Cys Asp Glu
            100                 105                 110
Ala Ala Glu Tyr Cys Glu Ser Gly Gly Asp Ala Gly Arg Val Gly Gly
        115                 120                 125
Gly His Leu Arg Gln Tyr Pro Cys Arg Pro Gln Gly Glu Tyr His Ser
    130                 135                 140
Gly Ser Val Gly Phe Glu Ala Gln Arg Ala Asp Val
145                 150                 155
```

<210> 30529
<211> 417
<212> PRT
<213> A.fumigatus

<400> 30529

```
Ala Pro Thr Ser Leu Asn Gly Leu Ile Glu Arg Tyr Arg Pro Asp Leu
1               5                  10                  15
Thr Pro Phe Glu Glu Thr Tyr Arg Gln Ile His Arg Ser Pro Glu Leu
            20                  25                  30
Ser Gly His Glu Glu Gln Thr Ser Thr Ile Ala Ala Ser His Leu Gln
        35                  40                  45
Gly Leu Gly Phe Asp Val His Thr His Ile Gly Gly Tyr Gly Leu Ala
    50                  55                  60
Gly Val Leu Arg Asn Gly Pro Gly Pro Thr Val Leu Leu Arg Ala Asp
65                  70                  75                  80
Met Asp Ala Leu Pro Val Glu Glu Lys Thr Gly Leu Pro Tyr Ala Ser
                85                  90                  95
Thr Lys Thr Ala Thr Gly Pro Asp Gly Glu Thr Val Pro Val Met His
            100                 105                 110
Ala Cys Gly His Asp Ser His Val Val Gly Leu Leu Ala Gly Ala Ser
        115                 120                 125
Leu Leu Gln Ala Ala Arg Glu His Trp Ser Gly Thr Leu Ile Cys Leu
    130                 135                 140
Phe Gln Pro Ala Glu Glu His Val Arg Gly Ala Arg Ala Met Ile Glu
145                 150                 155                 160
Asp Gly Leu Tyr Asp Lys Val Pro Gln Pro Asp Val Val Leu Ala Gln
                165                 170                 175
His Leu Val Arg Met Lys Ala Gly Thr Val Ser Val Arg Ala Gly Arg
            180                 185                 190
Leu Leu Thr Ala Ala Asp Ala Ile Asp Val Arg Val Tyr Gly Arg Gly
        195                 200                 205
Gly His Gly Ser Ala Pro Gln Ser Cys Ile Asp Pro Ile Val Ile Gly
    210                 215                 220
Ala Ala Ile Val Thr Arg Leu Gln Ser Ile Val Ser Arg Glu Val Thr
```

```
225                 230                 235                 240
Pro Gly Glu Leu Ala Val Val Thr Cys Gly Ser Ile His Ala Gly His
                245                 250                 255
Lys Ala Asn Ile Ile Pro Asp Gln Leu Asp Leu Lys Leu Ser Val Arg
            260                 265                 270
Thr Tyr Asp Ala Asp Thr Arg Ala Arg Val Ile Ala Gly Ile Lys Arg
        275                 280                 285
Ile Val Glu Ala Glu Cys Ala Ala Ala Gly Ala Val Glu Thr Pro Ser
    290                 295                 300
Val Asp Ile Val Ser Ser Thr Pro Ala Thr Ile Asn Asp Glu Ala Thr
305                 310                 315                 320
Val Arg Ala Leu Gln Glu Thr Phe Gly Ala Tyr Phe Gly Glu Asn Leu
                325                 330                 335
Val Asp Ser Glu Pro Ile Ala Ala Ser Glu Asp Phe Ser Leu Leu Ala
            340                 345                 350
Thr Ala Val Gly Ala Pro Tyr Val Met Trp Thr Tyr Gly Gly Val Asp
        355                 360                 365
Asp Lys Thr Trp Ala Asp Ala Val Ala Arg Gly Thr Val Asn Glu Leu
    370                 375                 380
Pro Ser Asn His Ser Pro Phe Phe Ala Pro Cys Ile Gln Pro Thr Leu
385                 390                 395                 400
Arg Thr Ala Val Asp Ala Met Ser Leu Gly Ala Leu Thr Phe Leu Arg
                405                 410                 415
Gln
```

<210> 30530
<211> 102
<212> PRT
<213> A.fumigatus

<400> 30530

```
Gly Leu Asp Ala Ala Gly Gly Ile Pro Cys Val Leu Asp Arg Pro Gly
1               5                   10                  15
Gly Ala Gly Pro Val Gly Ala Glu Gly Arg Pro Arg Ala Pro Gly Gly
            20                  25                  30
Tyr Val His Ala Asp Ala Val Arg Gly Ala Leu Phe Gly Arg Gly Ala
        35                  40                  45
Arg Val Ala Ala Gly Cys Ala Gly Gly Ser Gly Arg Arg Gly Ala His
    50                  55                  60
Gly Val Gly Gly Val Ser Ala Arg Arg Ile Leu Arg Tyr Ser Gly Trp
65                  70                  75                  80
Arg Arg Ser Gly Cys Asp Ala Val Val Cys His Ser Gly Val Leu Ser
                85                  90                  95
Ser Ser Leu Leu Ala Val
            100
```

<210> 30531
<211> 169
<212> PRT
<213> A.fumigatus

<400> 30531

```
Ser Gly Met Ile Phe Ala Leu Trp Pro Ala Trp Ile Leu Pro Gln Val
1               5                   10                  15
Thr Thr Ala Asn Ser Pro Gly Val Thr Ser Arg Leu Thr Ile Leu Cys
```

```
            20                  25                  30
Ser Leu Val Thr Met Ala Ala Pro Ile Thr Ile Gly Ser Met Gln Asp
        35                  40                  45
Cys Gly Ala Glu Pro Trp Pro Pro Arg Pro Tyr Thr Arg Thr Ser Ile
    50                  55                  60
Ala Ser Ala Ala Val Ser Asn Arg Pro Ala Arg Thr Leu Thr Val Pro
65                  70                  75                  80
Ala Phe Ile Arg Thr Arg Cys Cys Ala Ser Thr Thr Ser Gly Trp Gly
                85                  90                  95
Thr Leu Ser Tyr Ser Pro Ser Ser Ile Ile Ala Arg Ala Pro Arg Thr
            100                 105                 110
Cys Ser Ser Ala Gly Trp Lys Arg Gln Ile Ser Val Pro Asp Gln Cys
        115                 120                 125
Ser Arg Ala Ala Cys Ser Arg Leu Ala Pro Ala Arg Arg Pro Thr Thr
    130                 135                 140
Trp Leu Ser Cys Pro Gln Ala Cys Ile Thr Gly Thr Val Ser Pro Ser
145                 150                 155                 160
Gly Pro Val Ala Val Leu Val Leu Ala
                165
```

<210> 30532
<211> 203
<212> PRT
<213> A.fumigatus

<400> 30532

```
Val Arg Met Gly Pro Leu Arg Ala Met Thr Gln Tyr Gly Tyr Ala Asn
1               5                   10                  15
Asp Asp Trp Arg Met Cys Pro Arg Asp Ala Leu Cys Ser Val Ala Ser
            20                  25                  30
Met Arg Arg Gly Cys Ser Pro Arg Leu Val Ala Phe Cys Arg Gly Ala
        35                  40                  45
Asp Glu Ala Leu Thr Gln Leu Val Gly Ser His Ala Ser Leu Thr Ala
    50                  55                  60
Arg Glu Gly Arg Ala Leu Ser Glu Gln Lys Ala Ala Leu Glu Leu Leu
65                  70                  75                  80
Glu Gly Met Tyr Met Arg Thr Leu Tyr Val Val His Phe Ser Asp Glu
                85                  90                  95
Ala Arg Glu Ser Pro Arg Asp Val Gln Ala Asp Leu Glu Asp Ala Ala
            100                 105                 110
Leu Met Ala Trp Ala Glu Phe Leu Pro Asp Gly Phe Leu Asp Thr Leu
        115                 120                 125
Ala Gly Gly Gly Val Gly Ala Thr Leu Ser Tyr Val Ile Leu Ala Tyr
    130                 135                 140
Phe His Leu Leu Phe Ser Leu Phe Glu Ser Val Trp Tyr Val Gln Gly
145                 150                 155                 160
Gly Phe Asp Gly Glu Ile Val Gln Ile Gln Ala Leu Val Glu Met Ser
                165                 170                 175
Gly Glu Gly Glu Leu Met Ser Leu Met Gln Trp Pro Val Ala Val Ile
            180                 185                 190
Ala Val Asn His Asp His Arg Gly Ser Ser Val
        195                 200
```

<210> 30533
<211> 286
<212> PRT

<213> A.fumigatus

<220>
<221> UNSURE
<222> (184)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30533
Ile Lys Asp Lys Met Glu Leu Pro Ser Thr Met Lys Ala Trp Leu Tyr
1 5 10 15
Ser Asn Thr Thr Gly Gly Leu Glu Asn Asn Leu Glu Leu Ser Thr Ser
20 25 30
Ala Arg Thr Pro Gly Pro Pro Gly His Ser Gln Leu Leu Ile Lys Val
35 40 45
Ile Ser Ala Ser Ile Asn Pro Ala Asp Tyr Lys Val Pro Glu Met Pro
50 55 60
Ile Val Pro Arg Phe Phe Val Ser Tyr Pro Ala Thr Pro Gly Met Asp
65 70 75 80
Phe Cys Gly Gln Val Val Ala Ala Gly Pro Gly Ala Thr Ala Phe Gln
85 90 95
Pro Gly Gln Leu Val Tyr Gly Thr Thr Ala Ala Pro Ala Gln Phe Gly
100 105 110
Ser Leu Gly Glu Tyr Leu Leu Cys Lys Thr Glu His Val Ala Leu Leu
115 120 125
Pro Asp Gly Val Ala Pro Asp His Ala Ala Thr Val Gly Val Ala Ala
130 135 140
Gln Thr Ala Tyr Gln Ser Ile Ala Pro Tyr Val Ser Ala Gly Asp Arg
145 150 155 160
Val Phe Ile Asn Gly Gly Ser Gly Gly Cys Gly Ile Phe Ala Ile Gln
165 170 175
Ile Ala Lys Ala Leu Gly Cys Xaa Val Thr Thr Thr Cys Trp Arg Arg
180 185 190
Asn Val Pro Phe Cys Lys Glu Leu Gly Ala Glu Glu Val Ile Asp Tyr
195 200 205
Thr Gln Asp Asp Val Leu Ala Val Leu Arg Ala Pro Gly Pro Gly Val
210 215 220
Cys Ala Arg Arg Arg Pro Tyr Trp Ala Ala Arg Gly Ala Val Leu Ala
225 230 235 240
Val Ala Tyr Val Leu Ala Ser Gly Glu Gly Val Cys Ala Gly Trp Cys
245 250 255
Ala Val Asp Ala Asp Val Cys Ala Ala Gly Gly Val Ala Gly Val Phe
260 265 270
Gly Arg Trp Ala Glu Glu Val Cys Asp Leu Tyr Asp Glu Glu
275 280 285

<210> 30534
<211> 238
<212> PRT
<213> A.fumigatus

<400> 30534
Pro Pro Pro Thr Arg Pro Ala Ser Pro Pro Asp Ser Gln Tyr Ser Ala
1 5 10 15
Ala Ser Ser Gln Trp Pro Pro Gln Ser Gln Ser Asp Arg Cys Arg Thr
20 25 30
Ala Ala Pro Ser Arg Gly Pro His Ala His Thr Arg Ala His Arg Ser

```
        35                  40                  45
His Pro Pro Pro Ser Ala Thr Ala Pro Pro Ala His Ser Pro Ser Pro
    50                  55                  60
Pro Ser Ser Ala Pro Asp Ala Ala Pro Ala Pro His Pro Ala Gly Ala
65                  70                  75                  80
Leu Cys Arg Thr Ala Arg Pro Arg Ser Ser Pro Ala Pro Arg Gly His
                85                  90                  95
Ala Pro Pro Pro Ala Gly Arg Gly Arg Ser Val Phe Arg Thr Asn Ala
            100                 105                 110
Pro Ala Arg Pro Ala Ala Gly Ser Arg Arg Pro Gly Asp Pro Arg Arg
        115                 120                 125
Gly Tyr Arg Ala Arg Arg Arg Ala Ser Gln Gly Arg Ser Arg Arg Pro
    130                 135                 140
Gly Arg Trp Arg Phe Trp Cys Leu Arg Arg Ala Gly Arg Phe Ser Leu
145                 150                 155                 160
Pro Arg Gly Gly Arg Pro Cys Leu Arg Gly Gly Glu Arg Trp Gly Arg
                165                 170                 175
Ala Arg Cys Val Glu Pro Leu Arg Gly His Thr Arg Arg Cys Val Cys
            180                 185                 190
Gly Arg Arg Asn Arg Gly Leu Ala Gly Gly Arg Arg Gln Trp Trp Arg
        195                 200                 205
Phe Ala Leu Arg Gly Arg Arg Val Arg Gly Ser Gly Gly Phe Val Gly
    210                 215                 220
Arg Phe Leu Arg Arg Gly Leu Ser Leu Ala Gly Ile Phe Gln
225                 230                 235
```

<210> 30535
<211> 296
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (139)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 30535
Ser Lys Ser Ser Gln Pro Pro Ser Thr Arg Pro Thr Thr Lys Ser Pro
1               5                   10                  15
Lys Cys Pro Ser Ser Arg Gly Phe Leu Cys Pro Ile Pro Pro Pro Arg
            20                  25                  30
Glu Trp Thr Phe Ala Asp Arg Ser Ser Pro Pro Ala Pro Ala Pro Pro
        35                  40                  45
Pro Ser Asn Arg Ala Asn Trp Ser Thr Ala Arg Arg Arg Arg Leu Arg
    50                  55                  60
Ser Ser Ala Arg Trp Ala Ser Thr Cys Ser Ala Arg Arg Ser Thr Ser
65                  70                  75                  80
Leu Ser Cys Arg Thr Gly Ser His Pro Thr Thr Arg Pro Pro Ser Gly
                85                  90                  95
Ser Pro Arg Lys Arg Arg Thr Ser Leu Ser Arg Arg Thr Ser Arg Arg
            100                 105                 110
Gly Ile Gly Cys Ser Ser Thr Gly Val Arg Ala Gly Ala Gly Ser Ser
        115                 120                 125
Arg Ser Arg Leu Pro Arg Arg Trp Gly Val Xaa Ser Arg Arg Arg Val
    130                 135                 140
Gly Gly Ala Met Cys Arg Ser Ala Arg Ser Trp Gly Pro Arg Arg Ser
```

```
145                 150                 155                 160
Ser Thr Thr Pro Arg Thr Met Cys Trp Arg Tyr Ser Ala Pro Arg Gly
                165                 170                 175
Pro Val Tyr Ala His Ala Val Asp His Ile Gly Leu Pro Glu Ala Leu
            180                 185                 190
Tyr Ser Gln Ser His Met Phe Leu Leu Pro Gly Lys Ala Phe Val Gln
        195                 200                 205
Val Gly Ala Leu Ser Met Leu Thr Phe Val Arg Arg Val Val Trp Pro
    210                 215                 220
Gly Phe Leu Gly Gly Gly Arg Arg Lys Tyr Val Ile Phe Met Met Lys
225                 230                 235                 240
Ser Asn Gln Arg Asp Ile Ala Thr Leu Gly Glu Trp Met Gln Gln Gly
                245                 250                 255
Lys Leu Arg Val Glu Val Asp Ser Thr Tyr Glu Leu Glu Asp Ala Val
            260                 265                 270
Lys Ala Phe Ala Lys Leu Arg Ser Gly Arg Ala Arg Gly Lys Ile Ile
        275                 280                 285
Ile His Val Ser Thr Glu Ser Ser
    290                 295
```

<210> 30536
<211> 373
<212> PRT
<213> A.fumigatus

<400> 30536

```
Val Gln Val Val Tyr Ala Ser Leu Val Pro Lys Val Asn Thr Phe Ile
1               5                   10                  15
Tyr Trp Ser Cys Arg Val Leu Leu Pro Glu Lys Gly Gln Arg Pro Gln
            20                  25                  30
Ala His Arg Ile His Gly Cys Pro Gln Ser Arg Leu Asp Thr Arg Arg
        35                  40                  45
Lys Glu Arg Arg Met Val Thr Arg Gln Leu Val His Arg Pro Pro Gly
    50                  55                  60
His Gly Val Arg Pro Cys Leu Val Val Asp Ala Ala Ile Arg Pro His
65                  70                  75                  80
His Val Gly Arg Pro Asp Gly Arg Arg Glu Gln Gly Glu Ile Leu Ala
                85                  90                  95
Arg Cys Asp Arg Leu Arg Val His Gln Val Leu Ala Glu Val Gly Ala
            100                 105                 110
Lys Gly Leu Leu Glu Arg Thr His Arg Arg Leu Val Val Asp Gly Arg
        115                 120                 125
Arg Gly Gly Arg His Asn Val Asn Arg Arg Arg Leu His Gly Thr Arg
    130                 135                 140
Arg Arg Thr Phe Arg Leu Asp Asp Ala Leu Asn Ala Arg Asp Asp Ser
145                 150                 155                 160
Arg Ala Ser Val Gly Ile Ile Arg Pro His Ala Glu Leu Gln Ile Gln
                165                 170                 175
Leu Ile Arg Asn Asp Ile Arg Leu Val Ala Gly Met Asp Thr Ala Ala
            180                 185                 190
Gly Asp His Arg Gln Leu Ala Arg Arg His Leu Pro Thr His Asn Thr
        195                 200                 205
Leu Gln Pro Arg His Asn Gly Arg Pro Asn His Asn Arg Ile Asp Ala
    210                 215                 220
Gly Leu Arg Arg Arg Ala Val Ala Pro Thr Pro Ile His Ala His Ile
225                 230                 235                 240
```

```
Asp Arg Ile Arg Arg Arg Gln Gln Pro Pro Arg Pro His Thr His Arg
                245                 250                 255
Pro Arg Leu His Pro His Gln Met Leu Arg Gln His His Ile Arg Leu
            260                 265                 270
Gly His Phe Val Val Gln Pro Val Leu Asp His Arg Pro Arg Pro Ala
        275                 280                 285
Asp Met Leu Leu Arg Arg Leu Glu Glu Ala Asp Gln Cys Ser Gly Pro
    290                 295                 300
Met Leu Pro Arg Gly Leu Gln Gln Ala Arg Ala Gly Gln Glu Thr His
305                 310                 315                 320
Asp Val Ala Ile Val Pro Ala Gly Val His His Arg Asp Gly Leu Ala
                325                 330                 335
Val Arg Ala Gly Gly Gly Phe Gly Ala Cys Val Gly Gln Ala Gly Phe
            340                 345                 350
Leu Phe His Gly Glu Gly Val His Val Cys Ala Glu Glu Asn Gly Gly
        355                 360                 365
Ala Gly Pro Val Ala
    370
```

<210> 30537
<211> 68
<212> PRT
<213> A.fumigatus

```
<400> 30537
Leu Ile Gly Ala Phe Lys Phe Asp Leu Ser Thr Val Ser Thr Ile Ile
1               5                   10                  15
Pro Arg Arg Thr Thr Asn Asp Cys Gly Val Thr Pro Thr Ser Leu Ala
            20                  25                  30
Glu Thr His Thr Trp Arg Met Val Glu Asp Arg Arg Arg Val Asp Asn
        35                  40                  45
Ser Ile Leu Asp Ile Asn Arg Met Ile Ile Phe Ile Pro Ile Leu His
    50                  55                  60
Ala Gly Gly Ile
65
```

<210> 30538
<211> 390
<212> PRT
<213> A.fumigatus

```
<400> 30538
Arg Asp Ile Met Lys Gly Leu Val Gly Gly Ile Pro Leu Ala Leu Leu
1               5                   10                  15
Val Ala Ala Val Ala Asn Gly His Gly Gln Gly Leu Lys Glu Asp Gly
            20                  25                  30
Pro Val Thr Val Ile Gly Gly Pro Ser Gly Asp Asp Gly Gly Asn Asn
        35                  40                  45
Val Ala Val Glu Phe Ala Gly Ser Tyr Asn Ser Gly Val Lys Asp Arg
    50                  55                  60
Tyr Lys Asp Asp His Ser Val Asn Leu Lys Asn Thr Val Val Ala His
65                  70                  75                  80
Ala Pro Pro His Pro Pro Val Arg Gly Ser His Lys Arg His His Pro
                85                  90                  95
Ala Val Thr Val Ile Gly Gly Pro Ser Gly Asp Asp Gly Gly Asn Ser
            100                 105                 110
```

```
Ala Glu Ile Glu Phe Asp Ser Ser Tyr Ala Ser Ala Val Glu Asp Trp
        115                 120                 125
Tyr Lys Asp Asp His Ser His Asp Val Glu Asn His Ile Ile Thr Pro
    130                 135                 140
Pro Val His Gly Phe Arg Arg Arg Gly Asp Pro Ser Val Thr Leu Val
145                 150                 155                 160
Gly Gly Pro Ser Gly Asn Asp Gly Gly Asn Ser Val Glu Phe Glu Phe
                165                 170                 175
Asp Ser Ser Tyr Ala Ser Val Val Lys Asp Ala Tyr Lys Asp Asp His
            180                 185                 190
Ser Val Gly Ile Glu Asn His Ile Thr His Pro Pro Pro Ala Pro Gly
        195                 200                 205
Phe Arg Lys Arg Gly Asp Gly Asp Thr Thr Val Ile Gly Gly Pro Ser
    210                 215                 220
Gly Asn Asp Gly Gly Asn Ser Ala Glu Ile Glu Phe Asp Ser Ser Tyr
225                 230                 235                 240
Asn Ser Ala Val Lys Asp Ala Tyr Lys Asp Asp His Ser Val Asp Ile
                245                 250                 255
Asp Asp His Ile Val Gln Ala Ala Pro Ser Arg Gly Phe His Lys Arg
            260                 265                 270
Gly Gly Gly Asp Thr Thr Val Ile Gly Gly Pro Ser Gly Asp Asp Gly
        275                 280                 285
Gly Asn Ser Ala Ser Phe Glu Phe Asp Ser Ser Tyr Ala Ser Ser Val
    290                 295                 300
Lys Asp Trp Tyr Lys Asp Asp His Ser Val Asp Val Lys Asn Thr Ile
305                 310                 315                 320
Ile His Pro Pro Pro Ile Phe His His Pro Pro Gly Val Gly Phe Arg
                325                 330                 335
Lys Arg Gly Gly Gly Asp Thr Thr Val Ile Gly Gly Pro Ser Gly Asp
            340                 345                 350
Asp Gly Gly Asn Ser Ala Glu Val Glu Phe Glu Ser Thr Tyr Glu Ser
        355                 360                 365
Ser Val Lys Asp Tyr Tyr Lys Glu Thr Ile Gln Cys Leu His His Gly
    370                 375                 380
Ala Gly Arg Thr Arg Ala
385                 390
```

<210> 30539
<211> 139
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (115),(116),(119),(122),(123),(124),(135)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30539

```
Pro Cys Pro Pro Pro Tyr His Pro Ala Arg Pro Val Arg His Gln Gln
1               5                   10                  15
Ile Arg Pro Val Leu Glu Gln Val Arg Glu Pro Pro Ser Ala Ser Asp
            20                  25                  30
Asn Pro Arg Thr Ala Asn Met Ser Ser Arg Phe Phe Tyr Gly Gly Gly
        35                  40                  45
Ser Asp Ser Asp Ser Ser Ser Ser Asp Glu Glu Glu Leu Tyr Ser Asp
    50                  55                  60
```

```
Arg Glu Glu Glu Glu Lys Ser Glu Glu Glu Glu Ser Ser Glu Glu Glu
65                  70                  75                  80
Asp Glu Thr Ser Glu Glu Glu Glu Ser Asp Glu Glu Thr Gly Ala Arg
                85                  90                  95
Lys Phe Leu Lys Asp Val Ala Ser Asp Ser Glu Gly Arg Arg Arg Lys
            100                 105                 110
Arg Leu Xaa Xaa Arg Cys Xaa Lys Cys Xaa Xaa Xaa Lys Asn Trp Met
        115                 120                 125
Lys Leu Glu Ile Thr Ile Xaa Leu Asn Glu Asn
    130                 135
```

<210> 30540
<211> 231
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (61)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30540

```
Ala Met Val Ala Pro Thr Ser Gln Ala Ala Pro Phe His Tyr Ala Ala
1               5                   10                  15
Glu Val Tyr Arg Ala Leu Arg Thr Ala Asn Glu Ser Glu Asn Ser Ser
            20                  25                  30
Leu Asn Lys Thr Ile Pro Pro Gly Ile Gln Gln Gln Gln Gln Ala Glu
        35                  40                  45
Asp Gly Ser Lys Gln Arg Ala Ala Gln Ala Ala His Xaa Gln Ser Ala
    50                  55                  60
Ala Gln Asn Ala Tyr Ser Met Gln Met Asn Gln Phe His Thr Pro Ser
65                  70                  75                  80
His Gly Gln Pro Pro Pro Met Tyr Asn Gly Met Phe Ala Gly His Gln
                85                  90                  95
Gln Gly Ala His Pro Pro Tyr Pro Ala Gln Pro Pro Gly Tyr Gly His
            100                 105                 110
Gln Met Asn Leu Met Pro Gly Gln Met Pro Gln Ser Gln Tyr Ala Pro
        115                 120                 125
Ser Gln Ser Leu Tyr Ala Gln Ala Thr Thr Arg Ala Gly Arg Gln Arg
    130                 135                 140
Ala Ser Thr Met Asp His Gln Gly Gly Gly Ile Pro Pro Thr Ile Gln
145                 150                 155                 160
Arg Val Ala Ser His Leu Asp Pro Asn Ala Pro Ile Arg Leu Gln Pro
                165                 170                 175
Ser Pro Ala Tyr Tyr Pro Pro Pro Pro Asp Gly Tyr Val Asp Asn Asn
            180                 185                 190
Ala Gln Arg Arg Arg Gly Ser Arg Ala Gly Ala Gly Gln Arg Asn Arg
        195                 200                 205
Asp Phe Ile Arg Thr Leu Glu Asp Gly Val Leu Gly Gly Asp Gly Tyr
    210                 215                 220
Met Asn Gln Ser Gln Trp His
225                 230
```

<210> 30541
<211> 235
<212> PRT

<213> A.fumigatus

<220>
<221> UNSURE
<222> (224)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30541
Thr Asp Ser Ser Ser Tyr Ser Ser Ala Ile Asp Met Trp Ser Leu Gly
1 5 10 15
Cys Ile Val Val Glu Leu Phe Leu Gly Leu Pro Leu Phe Pro Gly Ser
20 25 30
Ser Glu Tyr Asn Gln Val Cys Arg Ile Val Glu Met Leu Gly Leu Pro
35 40 45
Pro Thr Trp Met Leu Glu Met Gly Lys Gln Ser Gly Glu Phe Phe Glu
50 55 60
Lys Thr Gln Asp Glu Phe Gly Arg Lys Thr Tyr Arg Leu Lys Ser Leu
65 70 75 80
Glu Gln Tyr Ser Arg Glu His Asn Thr Lys Glu Gln Pro Ser Lys Lys
85 90 95
Tyr Phe Gln Ala Ser Thr Leu Glu Glu Ile Ile Arg Ser Tyr Pro Met
100 105 110
Pro Arg Lys Asn Met Lys Gln Ala Glu Ile Glu Arg Gly Ser Phe Leu
115 120 125
Gln Thr Thr Ile Ser Phe His Ser Leu Thr Ser Arg Pro Glu Leu Asn
130 135 140
Asn Arg Val Ala Phe Ile Asp Phe Val Arg Gly Leu Leu Ser Ile Asn
145 150 155 160
Pro Leu Glu Arg Trp Ser Pro Gln Gln Ala Lys Leu His Pro Phe Ile
165 170 175
Thr Gln Gln Lys Phe Thr Gly Pro Phe Val Pro Pro Met Asn Leu Lys
180 185 190
Ile Pro Arg Ser Thr Lys Pro Tyr Arg Leu Glu Tyr Ser Ser Asn Ser
195 200 205
Arg Leu Arg Met Val Ala Asn Ser Glu Gln Pro Lys Arg His Met Xaa
210 215 220
Ser Gln Arg Pro Arg Met His Ile Arg Cys Lys
225 230 235

<210> 30542
<211> 140
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (12),(31)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30542
Ala Asn Ser Asp Ser Tyr Gln Gln Arg Met Gln Xaa Asp Leu Pro Gly
1 5 10 15
Val Phe Ser Ala Ser Pro Val Ala Asp Asn Val Arg Thr Trp Xaa Val
20 25 30
Leu His Ser Ser Arg Phe Ile Arg Thr Ser Glu Glu Cys Gly Asn Gly
35 40 45

```
Val Thr Asp Ile Ser Val Cys Arg Asn Ala Val Ile Ile Gly Pro Ala
    50                  55                  60
Asp Thr Pro Phe Glu Asp Gly Thr Phe Arg Leu Val Met His Phe Glu
65                  70                  75                  80
Glu Gln Tyr Pro Asn Lys Pro Pro Gly Val Lys Phe Ile Ser Gln Met
                85                  90                  95
Phe His Pro Asn Val Tyr Gly Thr Gly Glu Leu Cys Leu Asp Ile Leu
            100                 105                 110
Gln Asn Arg Trp Ser Pro Thr Tyr Asp Val Ala Ala Ile Leu Thr Ser
        115                 120                 125
Ile Gln Arg Tyr Val Glu Tyr Tyr Tyr Thr Thr His
    130                 135                 140
```

<210> 30543
<211> 85
<212> PRT
<213> A.fumigatus

<400> 30543

```
Gln Ile Ile Trp Ala Arg Leu Glu His His Gln Gly Phe Val Cys Ser
1               5                   10                  15
Val Arg Arg His Met Phe Glu Asp Thr His Arg Tyr Cys Thr Val Val
            20                  25                  30
Ala Arg Phe Arg Pro Gln Asn Lys Val Glu Leu Ala Ser Gly Gly Glu
        35                  40                  45
Pro Ile Val Glu Phe Glu Asn Glu Gln Ser Cys Lys Ile Asn Val Ser
    50                  55                  60
Leu Pro Ser Arg Leu Met Lys Gly Lys Val Cys Trp Arg Leu Lys Ile
65                  70                  75                  80
Leu Thr Arg Glu Arg
                85
```

<210> 30544
<211> 312
<212> PRT
<213> A.fumigatus

<400> 30544

```
Ser Lys Glu Gly Ser Gly Ala Phe Thr Phe Asp Arg Val Phe Pro Met
1               5                   10                  15
Asp Ser Lys Gln Thr Asp Ile Phe Asp Tyr Ser Ile Arg Pro Thr Val
            20                  25                  30
Asp Asp Ile Leu Asn Gly Tyr Asn Gly Thr Val Phe Ala Tyr Gly Gln
        35                  40                  45
Thr Gly Ala Gly Lys Ser Tyr Thr Met Met Gly Ser Asp Ile Asp Asp
    50                  55                  60
Pro Glu Gly Lys Gly Ile Ile Pro Arg Ile Val Glu Gln Ile Phe Ala
65                  70                  75                  80
Ser Ile Leu Thr Ser Pro Ser Asn Ile Glu Tyr Thr Val Arg Val Ser
                85                  90                  95
Tyr Met Glu Ile Tyr Met Glu Arg Ile Arg Asp Leu Leu Val Pro Gln
            100                 105                 110
Asn Asp Asn Leu Pro Val His Glu Glu Lys Ser Arg Gly Val Tyr Val
        115                 120                 125
Lys Gly Leu Leu Glu Val Tyr Val Ser Ser Val Gln Glu Val Tyr Glu
    130                 135                 140
```

```
Val Met Arg Arg Gly Gly Ala Ala Arg Ala Val Ala Ala Thr Asn Met
145                 150                 155                 160
Asn Gln Glu Ser Ser Arg Ser His Ser Ile Phe Val Val Thr Val Ser
                165                 170                 175
Gln Lys Asn Leu Glu Thr Gly Ser Ala Lys Ser Gly Gln Leu Phe Leu
            180                 185                 190
Val Asp Leu Ala Gly Ser Glu Lys Val Gly Lys Thr Gly Ala Ser Gly
        195                 200                 205
Gln Thr Leu Glu Glu Ala Lys Lys Ile Asn Lys Ser Leu Ser Ala Leu
    210                 215                 220
Gly Met Val Ile Asn Ala Leu Thr Asp Gly Lys Ser Thr His Ile Pro
225                 230                 235                 240
Tyr Arg Asp Ser Lys Leu Thr Arg Ile Leu Gln Glu Ser Leu Gly Gly
                245                 250                 255
Asn Ser Arg Thr Thr Leu Ile Ile Asn Cys Ser Pro Ser Ser Tyr Asn
            260                 265                 270
Asp Ala Glu Thr Ile Ser Thr Leu Arg Phe Gly Val Arg Ala Lys Ala
        275                 280                 285
Ile Lys Asn Lys Ala Lys Val Asn Ala Glu Leu Thr Phe Gly Leu His
    290                 295                 300
His Gly Ala Gly Arg Val Arg Ala
305                 310
```

<210> 30545
<211> 224
<212> PRT
<213> A.fumigatus

<400> 30545

```
Gly His Leu Ser Phe Thr Gly Ile Leu Leu Leu Ser Ser Thr Thr Leu
1               5                   10                  15
Asp Asn Arg Val Asp Ile Arg Glu Val Asn Leu Arg Ala Asp Thr Leu
            20                  25                  30
Cys Val Lys Ile Glu Gly Lys Ser Asp Gln Ile Asp Ile Thr Ser Ser
        35                  40                  45
Leu Thr Ile Ser Glu Lys Ser Ser Phe Asp Thr Leu Ser Thr Ser His
    50                  55                  60
Leu Ser Gln Leu Gly Gly Gly Asn Ser Thr Ala Thr Val Val Val Gly
65                  70                  75                  80
Met Asp Arg Asp Asp Lys Leu Leu Ser Leu Arg His Val Pro Ala Glu
                85                  90                  95
Ile Leu Asn Leu Val Cys Lys Tyr Val Trp Arg Cys His Leu His Cys
            100                 105                 110
Cys Trp Gln Ile Glu Tyr Tyr Gly Ala Phe Phe Gly Arg Ala Pro Ser
        115                 120                 125
Ser Leu Asp Gly Leu Ala Asn Leu Asp Cys Glu Leu Arg Leu Gly Val
    130                 135                 140
Gly Glu Gly Phe Gly Arg Lys Leu Glu Leu Pro Leu Gly Thr Ser His
145                 150                 155                 160
Leu Trp Ile Val Leu Gly Tyr Arg Ala Gly Val Leu Gly Ala Ser Tyr
                165                 170                 175
Gly Asn Leu Lys Thr Leu Phe Ala Gly Gly Ser Glu Asn Tyr Ser Ala
            180                 185                 190
Glu Thr Arg Ala Gly Ser Gln Val Asp Val Glu Asp Ser Phe Leu Cys
        195                 200                 205
Ala Phe Glu Gly Ile Asp Ser Ala Thr Asp Asp Phe Phe Ser Ala Arg
```

210 215 220

<210> 30546
<211> 134
<212> PRT
<213> A.fumigatus

<400> 30546
Ala Ser Ser Ala Ala Ala Thr Ala Gln Pro Arg Ser Leu Trp Gly Trp
1 5 10 15
Thr Glu Thr Thr Asn Phe Ser Leu Ser Val Met Phe Arg Gln Lys Tyr
20 25 30
Ser Thr Trp Ser Ala Asn Thr Phe Gly Val Val Ile Ser Thr Val Ala
35 40 45
Gly Arg Leu Asn Ile Met Gly Leu Ser Ser Val Gly Pro Gln Ala Ala
50 55 60
Leu Thr Ala Ser Gln Ile Trp Thr Ala Asn Ser Gly Ser Val Ser Glu
65 70 75 80
Lys Val Ser Gly Glu Asn Ser Asn Cys His Trp Val Pro Ala Ile Ser
85 90 95
Gly Ser Ser Leu Val Ile Glu Arg Ala Tyr Leu Val His Leu Thr Ala
100 105 110
Ile Ser Arg Leu Cys Ser Arg Val Val Pro Lys Thr Ile Arg Arg Lys
115 120 125
His Gly Leu Val Ala Arg
130

<210> 30547
<211> 150
<212> PRT
<213> A.fumigatus

<400> 30547
Pro Val Gly Cys Asn Val Val Val Asp Gln Val Glu Ala Arg Val Arg
1 5 10 15
Leu Glu Val Val Arg Leu Leu Glu Glu Leu Asp Asp Phe Leu Gly Pro
20 25 30
Gln Leu Pro Val His Gly Phe Gly Leu Leu Leu Asn Asp Leu Ala Glu
35 40 45
Leu Asp Leu Gln Ser Ala Arg Glu Ile Gln Leu Gln Thr Ala Gln Asp
50 55 60
Asp Pro Gly Gly Thr Thr Leu Ala Ala Leu Gly Val Asp Thr Asp Asp
65 70 75 80
Ser Leu Val Val Pro Pro Asn Val Leu Arg Ile Gln Arg Glu Val Trp
85 90 95
Asp Asp Pro Phe Val Val Val Gly Gly Val Gly Thr Phe Ala Gln Leu
100 105 110
Glu Ser Leu Leu Asp Ser Val Leu Val Thr Ala Ala Glu Arg Ala Asp
115 120 125
Asn Gln Leu Thr Thr Val Gly Pro Ser Phe Ile His Arg Asn Leu Val
130 135 140
Ala Leu Phe His His Pro
145 150

<210> 30548
<211> 275

<212> PRT
<213> A.fumigatus

<400> 30548
Asp Gly Asp Gln Lys Phe Arg Phe Phe Lys Met Leu Val Asp Ile Gly
1 5 10 15
Tyr Thr Glu Ile Glu Val Ser Phe Pro Ser Ala Ser Gln Thr Asp Phe
20 25 30
Asp Phe Thr Arg Arg Leu Val Lys Thr Pro Gly Val Val Pro Asp Asp
35 40 45
Val Trp Leu Gln Val Leu Ser Pro Cys Arg Glu Glu Ile Ile Arg Arg
50 55 60
Thr Val Asp Ser Leu Lys Ser Ala Lys Lys Ala Ile Leu His Ile Tyr
65 70 75 80
Leu Ala Thr Ser Pro Cys Phe Arg Arg Ile Val Phe Gly Thr Thr Arg
85 90 95
Glu Gln Ser Leu Glu Ile Ala Val Arg Cys Thr Lys Tyr Ala Arg Ser
100 105 110
Ile Thr Lys Asp Asp Pro Glu Met Ala Gly Thr Gln Trp Gln Phe Glu
115 120 125
Phe Ser Pro Glu Thr Phe Ser Asp Thr Glu Pro Glu Phe Ala Val Gln
130 135 140
Ile Cys Glu Ala Val Lys Ala Ala Trp Gly Pro Thr Glu Glu Ser Pro
145 150 155 160
Ile Ile Phe Asn Leu Pro Ala Thr Val Glu Met Thr Thr Pro Asn Val
165 170 175
Phe Ala Asp Gln Val Glu Tyr Phe Cys Arg Asn Met Thr Glu Arg Glu
180 185 190
Lys Phe Val Val Ser Val His Pro His Asn Asp Arg Gly Cys Ala Val
195 200 205
Ala Ala Ala Glu Leu Ala Gln Met Ala Gly Ala Gln Arg Val Glu Gly
210 215 220
Thr Leu Phe Gly Asn Gly Glu Arg Thr Gly Asn Val Asp Leu Val Thr
225 230 235 240
Leu Ala Leu Asn Leu Tyr Thr Gln Gly Val Ser Pro Gln Val Asp Phe
245 250 255
Ser Asp Ile Asn Ser Val Ile Lys Gly Gly Gly Arg Glu Gln Gln Asp
260 265 270
Ser Cys Glu
275

<210> 30549
<211> 348
<212> PRT
<213> A.fumigatus

<400> 30549
Arg Arg Glu Arg Ser Leu Ser Ser Leu Ser Ile Pro Thr Thr Thr Val
1 5 10 15
Ala Val Leu Leu Pro Pro Pro Ser Trp Leu Arg Trp Leu Val Leu Ser
20 25 30
Val Ser Lys Glu Leu Phe Ser Glu Met Val Arg Glu Leu Val Met Ser
35 40 45
Ile Trp Ser Leu Leu Pro Ser Ile Phe Thr His Arg Val Ser Ala Leu
50 55 60
Lys Leu Thr Ser Arg Ile Ser Thr Arg Leu Ser Arg Val Val Glu Glu

```
65                  70                  75                  80
Ser Asn Lys Ile Pro Val Asn Glu Arg Trp Pro Tyr Gly Gly Gln Leu
                85                  90                  95
Val Val Cys Ala Phe Ser Gly Ser His Gln Asp Ala Ile Lys Lys Gly
            100                 105                 110
Phe Lys Leu Arg Glu Ser Ala Asn Ala Thr Asp Asp Asp Glu Trp Val
        115                 120                 125
Ile Pro Tyr Leu Pro Leu Asp Pro Gln Asp Ile Gly Arg Asn Tyr Glu
    130                 135                 140
Ala Val Ile Arg Val Asn Ser Gln Ser Gly Lys Gly Gly Ala Ala Trp
145                 150                 155                 160
Val Ile Leu Arg Ser Leu Glu Leu Asp Leu Pro Arg Ala Leu Gln Val
                165                 170                 175
Glu Phe Ser Lys Ile Val Gln Lys Lys Thr Glu Ala Val Asn Arg Glu
            180                 185                 190
Leu Arg Pro Lys Glu Ile Val Glu Leu Phe Glu Glu Ala Tyr His Leu
        195                 200                 205
Lys Ser Asn Pro Arg Phe Asn Leu Val Asp Tyr Asn Ile Thr Thr Asp
    210                 215                 220
Arg Ser Gln Ser Pro Ala Pro Pro Glu Pro Gly Lys Ala Leu Asn Thr
225                 230                 235                 240
Lys Asn Leu Lys Arg Arg Phe Thr Gly Ile Ile Glu Ile Asp Asn Ile
                245                 250                 255
Gln His Ala Ile Thr Gly Val Gly Pro Gly Ala Ile Ser Ser Leu Ala
            260                 265                 270
Asn Ala Leu Ser Thr Leu Gly Ile Asp Leu Asp Val Ile Asp Tyr Lys
        275                 280                 285
Glu His Ser Ile Gly Leu Gly Arg Asp Val Lys Ala Ala Thr Tyr Leu
    290                 295                 300
Gln Cys Thr Ala Ala Gly Ser Lys Glu Gln Val Trp Gly Val Gly Ile
305                 310                 315                 320
His Gln Asp Val Val Gln Ala Ser Leu Ile Ala Leu Leu Ser Ala Ala
                325                 330                 335
Ser Ser Val Arg Phe Leu Leu His Phe Ser Ser Pro
            340                 345

<210> 30550
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30550
Phe Asp Arg Leu Lys Asp Pro Ser Lys Lys Tyr Lys Pro Phe Lys Pro
1               5                   10                  15
Leu His Leu Pro Asn Arg Gln Trp Pro Asp Lys Val Ile Asp Lys Pro
            20                  25                  30
Pro Arg Trp Leu Ala Thr Asp Leu Arg Asp Gly Asn Gln Ser Leu Pro
        35                  40                  45
Asp Pro Met Val Arg Thr Ser Phe Ile Phe Phe Gly Arg Leu
    50                  55                  60

<210> 30551
<211> 97
<212> PRT
<213> A.fumigatus
```

<400> 30551
Ser Pro Ser Ser Ala Leu Arg Pro Arg Tyr Val Ser Tyr Tyr Thr Phe
1 5 10 15
Pro Pro Leu Lys Ile Ser Ile Ile Ser Asn Arg Leu Leu Val Gln Phe
20 25 30
Leu Thr Ser Arg Ala Gly Ser Pro Ala Pro Phe Arg Pro Gln Arg Ser
35 40 45
Asn Thr Leu Thr Asp Glu Asp Leu Gln Ala Leu Glu Gln Leu Gly Ser
50 55 60
Ser Asn Ala Ala Ala Ile Thr Ala Ser Lys Leu Thr Thr Asn Asp Ser
65 70 75 80
Ala Lys Pro Lys Val Asp Leu Asp Ala Leu Thr Ala Gln Ala Asn Ser
85 90 95
Gln

<210> 30552
<211> 305
<212> PRT
<213> A.fumigatus

<400> 30552
Thr Ile His Phe Val Leu Pro Ile Phe Phe Tyr Leu Leu Ser Phe Pro
1 5 10 15
Phe Leu Ile Gln Pro Leu Val Ile Pro Asp Met Ala Ser Tyr Ser Thr
20 25 30
Cys Ala Glu Val Ser Pro Leu Cys Pro Val Glu Ala Thr Thr Tyr Gly
35 40 45
Tyr Tyr Pro Asn Leu Ala Gly Asn Ile Phe Phe Ala Val Phe Phe Gly
50 55 60
Ile Leu Ala Leu Phe Gln Leu Gly Ile Gly Ile His Tyr Arg Thr Trp
65 70 75 80
Thr Phe Met Val Ala Val Ala Val Gly Ala Ile Leu Glu Leu Ala Gly
85 90 95
Tyr Ile Gly Arg Val Leu Met His Arg Asn Pro Trp Asp Ser Ser Ala
100 105 110
Phe Lys Leu Gln Ile Val Cys Leu Val Leu Ala Pro Thr Phe Val Ala
115 120 125
Ala Gly Ile Tyr Leu Thr Leu Lys His Ile Ile Leu Ala Leu Gly Pro
130 135 140
Glu His Ser Arg Leu Lys Pro Ala Leu Phe Thr Trp Ile Phe Ile Gly
145 150 155 160
Cys Asp Val Gly Ser Leu Ile Leu Gln Ala Ala Gly Gly Gly Val Ala
165 170 175
Ala Ala Ala Gly Asn Thr Asn Val Ser Leu Leu Lys Ala Gly Asp Asp
180 185 190
Ile Ile Ile Ala Gly Ile Ala Phe Gln Val Ala Thr Met Ser Val Cys
195 200 205
Gly Phe Leu Gly Leu Glu Phe Phe Ile Arg Tyr Ser Lys Arg Gly Ala
210 215 220
Gly Leu Ser Gly Glu Lys Thr Ser Val Gly Arg Asn Ile Lys Trp Val
225 230 235 240
Ile Val Gly Glu Val Phe Ala Tyr Ile Thr Val Leu Ile Arg Cys Ile
245 250 255
Tyr Arg Tyr Val Tyr Thr Phe Ser Arg Leu Pro Ser Arg Ser Ser Cys
260 265 270

```
Arg Thr Leu Asn Met Ala Thr Ser Ile Pro Glu Met Ala Gly Gly Trp
        275                 280                 285
Gly Asn Pro Leu Met Gln Lys Glu Asn Glu Phe Leu Val Leu Asp Gly
    290                 295                 300
Met
305
```

<210> 30553
<211> 146
<212> PRT
<213> A.fumigatus

<400> 30553

```
Tyr Ser Leu Ala Val Ser Leu Leu Ser Leu Ile Arg Pro Pro Phe Val
1               5                   10                  15
Ser Val Leu Arg Ala Lys Glu Gln Gly Val Arg Arg Leu Ser Val Leu
            20                  25                  30
Val Thr Glu Pro Lys Leu Phe Ala Thr Cys Ile Asp His Cys Trp Leu
        35                  40                  45
Ser Asp His Ile Ala Gly Ser Gln Leu Lys Met Ala Phe Leu Arg Thr
    50                  55                  60
Pro Ile Val Leu Leu Leu Thr Gln Ile Leu Leu Phe Leu Gly Leu Val
65                  70                  75                  80
Asn Ala Val Pro Thr Pro Glu Ser Leu Asp Val His Gly Asn Leu Ala
                85                  90                  95
Arg Asp Thr Ala Ser Ser Phe Trp Val Ala Asn Ile Lys Arg Gln Gly
            100                 105                 110
Ala Val Ala Phe Gly Gln Ser Ser Gly Tyr Gln Val Tyr Arg Asn Val
        115                 120                 125
Lys Asp Phe Gly Ala Lys Gly Lys Ser Pro Ser Thr Glu Thr Arg Val
    130                 135                 140
Phe Ser
145
```

<210> 30554
<211> 432
<212> PRT
<213> A.fumigatus

<400> 30554

```
Val Ser Phe Tyr Arg Asp Gln Ser Ile Phe Leu Thr Glu Asn Val Gly
1               5                   10                  15
Asp Gly Val Thr Asp Asp Thr Ala Ala Ile Asn Gln Ala Ile Ser Ser
            20                  25                  30
Gly Asp Trp Cys Gly Lys Gly Cys Asp Ser Ser Thr Thr Thr Pro Ala
        35                  40                  45
Leu Val Tyr Phe Pro Pro Gly Thr Tyr Val Val Ser Lys Pro Ile Ile
    50                  55                  60
Gln Tyr Tyr Tyr Thr Gln Ile Val Gly Asp Ala Val Asp Leu Pro Val
65                  70                  75                  80
Ile Lys Ala Ser Ala Asp Phe Thr Gly Met Ala Val Ile Asp Ala Asp
                85                  90                  95
Pro Tyr Glu Asn Asp Gly Ser Asn Trp Tyr Thr Asn Gln Asn Asn Phe
            100                 105                 110
Phe Arg Ala Ile Arg Asn Leu Val Ile Asp Leu Arg Ala Met Pro Met
        115                 120                 125
```

```
Asn Ser Gly Ala Gly Ile His Trp Gln Val Gly Gln Ala Thr Ser Leu
    130                 135                 140
Gln Asn Ile Arg Phe Glu Met Ile Arg Gly Gly Gly Asp Ala Asn Lys
145                 150                 155                 160
Gln Gln Gly Ile Phe Met Asp Asn Gly Ser Gly Gly Phe Met Ser Asp
                165                 170                 175
Leu Thr Phe Asn Gly Gly Asn Tyr Gly Met Phe Val Gly Asn Gln Gln
            180                 185                 190
Phe Thr Thr Arg Asn Leu Ser Phe Asn Asp Cys Asn Thr Ala Val Phe
        195                 200                 205
Met Asn Trp Asn Trp Ala Trp Thr Phe Lys Ser Ile Ser Ile Asn Asn
    210                 215                 220
Cys Gln Val Gly Leu Asn Met Ser Asn Ala Pro Gln Asn Gln Thr Val
225                 230                 235                 240
Gly Ser Val Leu Leu Leu Asp Ser Ser Val Thr Asn Thr Pro Thr Gly
                245                 250                 255
Val Val Thr Ala Phe Thr Gln Asp Ser Ile Pro Val Gly Gly Gly Val
            260                 265                 270
Leu Ile Leu Glu Asn Val Asp Phe Thr Gly Ser Asn Val Ala Val Ala
        275                 280                 285
Gly Ile Ser Gly Asn Thr Ile Leu Lys Gly Gly Ser Val Val Ala Ser
    290                 295                 300
Trp Ile Gln Gly Asn Thr Tyr Ser Pro Ala Asn Ser Leu Asn Lys Arg
305                 310                 315                 320
Ala Thr Gln Gly Lys Val Arg Val Val Thr Glu Thr Val Val Glu Thr
                325                 330                 335
Val Leu Ala Cys Pro Ala Gln His Ser Glu Thr Leu Glu Ser Ala Pro
            340                 345                 350
Ala Arg Thr Ala Thr Ala Ala Ala Ser Thr Glu Ala Arg Gln Ser Asn
        355                 360                 365
Ala Asp Ala Tyr Glu Ser Thr Gln Val Ala Gly Gln Pro Ser Ala Ala
    370                 375                 380
Lys Thr Thr Pro Val Val Tyr Pro Thr Leu Ser Gly Gly Leu Ser Lys
385                 390                 395                 400
Pro Gly Phe Ser Ser Gly Ser Thr Ile Ser Ser Gln Gly Pro Ser Ser
                405                 410                 415
Gly Asn Met Pro Ser Ser Pro Arg Gly Trp Lys Asp Gln Gly Gly Leu
            420                 425                 430
```

<210> 30555
<211> 82
<212> PRT
<213> A.fumigatus

<400> 30555

```
Leu Lys Gln Asp Val Leu Gly Asp Val Leu His Val Leu Tyr Pro Val
1               5                   10                  15
Asp Gly Phe Asp Ser His Ile Asp Gly His Asp Tyr Leu Asp Asp Cys
            20                  25                  30
Leu Gly Glu Ser Asp Gly Gln Leu Gly Arg Phe Glu Leu Val Tyr Ala
        35                  40                  45
Ala Val Gly Asp Asn Glu Leu Leu Tyr Thr Cys Arg Cys Asp Glu Ser
    50                  55                  60
Gly Asp Pro Asp Gly Cys Asp Gly Gly Gln His Thr Asp Asp Arg Val
65                  70                  75                  80
Gly Gly
```

<210> 30556
<211> 142
<212> PRT
<213> A.fumigatus

<400> 30556
Asn Arg Thr Tyr Trp Val Thr Phe Tyr Thr Tyr Tyr Ile Pro Ser Thr
1 5 10 15
Ala Ser Ile Arg Thr Ser Thr Val Thr Thr Thr Ser Thr Ile Val Ser
20 25 30
Val Lys Ala Thr Asp Ser Ser Asp Ala Ser Ser Ser Phe Thr Arg Leu
35 40 45
Ser Ala Thr Met Ser Phe Tyr Thr Pro Ala Gly Ala Thr Asn Pro Val
50 55 60
Thr Pro Thr Asp Val Thr Ala Ala Ser Ile Pro Thr Ile Val Ser Gly
65 70 75 80
Asp Asp Gly Arg Ser Asn Gly Asn Ser Gly Ser Gly Gly Asn Gly Gly
85 90 95
Val Gly Ile Ser Val Asn Gly Val Ile Gly Gly Pro Gly Gly Asp Leu
100 105 110
Asn Ala Ala Asn Ala Thr Arg Arg Phe Gly Trp Glu Thr Ala Leu Thr
115 120 125
Leu Ser Ile Val Leu Gly Thr Gly Leu Leu Met Ile Tyr Leu
130 135 140

<210> 30557
<211> 226
<212> PRT
<213> A.fumigatus

<400> 30557
Thr Val Tyr Asp Glu Ile Ile Pro Val Gln Thr Ala Thr Asn Arg Thr
1 5 10 15
Pro Ala Asn Leu Trp Leu Met Asp Arg Pro Asp Leu Ile Ala Thr Phe
20 25 30
Thr Lys Ile Glu Leu Trp Arg Gln Thr Gln Phe Arg Lys Ile Val Tyr
35 40 45
Ile Asp Cys Asp Val Val Ala Val Arg Ala Pro Asp Glu Leu Leu Thr
50 55 60
Leu Glu Glu Asp Phe Ala Ala Ala Pro Asp Val Gly Trp Pro Asp Ile
65 70 75 80
Phe Asn Ser Gly Val Met Val Leu Arg Pro Asn Leu Gln Asp Tyr Tyr
85 90 95
Ala Leu Lys Ala Leu Ala Glu Arg Gly Ile Ser Phe Asp Gly Ala Asp
100 105 110
Gln Gly Leu Leu Asn Met His Phe Arg Asn Trp His Arg Leu Ser Phe
115 120 125
Thr Tyr Asn Cys Thr Pro Ser Ala Asn Tyr Gln Tyr Ile Pro Ala Tyr
130 135 140
Lys His Phe Gln Ser Thr Ile Ser Leu Ile His Phe Ile Gly Ala Gln
145 150 155 160
Lys Pro Trp Asn Leu Pro Arg Gln Val Leu Pro Val Asp Ser Pro Tyr
165 170 175
Asn Gln Leu Leu Gly Arg Trp Trp Ala Ile Tyr Asp Arg His Tyr Arg

```
            180                 185                 190
Pro Val Val Thr Val Gly Phe Asp Val Leu Tyr Cys Asp Thr Phe Pro
        195                 200                 205
Ser Ala Thr Phe Ile Ala His Asp Ala Ser Gly Ser Arg Thr Leu Pro
    210                 215                 220
Ala Glu
225
```

<210> 30558
<211> 381
<212> PRT
<213> A.fumigatus

<400> 30558

```
Ser Leu Val Tyr Tyr Tyr Ile Arg Ser Leu Ile His Arg Pro Ala Val
1               5                   10                  15
Cys Phe Gly Glu Glu His Ile Arg Ser Pro Ser Ile Leu Ala Thr Phe
            20                  25                  30
Asp Ser Cys Lys His Ile Ile Gln Ile Leu Gln Leu Leu Asp Glu Arg
        35                  40                  45
Arg Leu Cys Leu Ser Ile Ser Ile Asn Arg Lys Glu Leu Val Phe Thr
    50                  55                  60
Ser Gly Leu Gly Leu Leu Trp Gln Asn Thr Gly Leu Lys Arg Glu Ser
65                  70                  75                  80
Lys Leu Leu Lys Glu Cys Gln Lys Leu Leu Thr Ala Val Ile Asp Gln
                85                  90                  95
Leu Glu Pro Glu Ser Ala Gln Ala Ala Ala Glu Phe Ser Ser Val Ala
            100                 105                 110
Ser Leu Leu Val Ser Phe Asp Ser Asp Lys Arg Gly Thr Ser Val Lys
        115                 120                 125
Asn Arg Ser Met Ser Pro Pro Ala His Lys Pro Leu Lys Ser Pro Lys
    130                 135                 140
Lys Gln Leu Gln Ser Leu Lys Ala Arg Ser Thr Ser Asp Glu Ala Pro
145                 150                 155                 160
Asn Gln Ala Thr Glu Ser Leu Ser Arg Arg Ala Thr Ile Ser Gly Thr
                165                 170                 175
Ser Leu Gly Val Pro His Arg His Leu Arg Ser Pro Ser Arg Val Ser
            180                 185                 190
Leu Pro Ser Glu Asn Tyr Pro Ala Pro Gln Gln Ser Met Asn Arg Ala
        195                 200                 205
Tyr Tyr Met Ser Pro Ser Thr Thr His Glu His Thr Gln Thr Met Ser
    210                 215                 220
Ser Ser Ala Pro Ser Asn Ala Ala Ala Gly Pro Met Ser Met Ala Asp
225                 230                 235                 240
Trp Glu Phe Val Leu Ser Asp Met Asp His Gly Tyr Ser Asn Ile Phe
                245                 250                 255
Thr Gly Ile Tyr Gly Gly Lys Glu Cys Gly Glu Asp Ser Gly Pro Phe
            260                 265                 270
Ala Ser Leu Thr Thr Gly Cys Val Pro Thr Asp Gln Ser Pro Met Pro
        275                 280                 285
Leu Ser Ala Ser Thr Lys Asp Val Pro Gly Leu Ser Pro Glu Ala Trp
    290                 295                 300
Ser Ala Ser Ser Asn Ser Asp Met Leu Pro Asn His Glu Val Asn Pro
305                 310                 315                 320
Ala Pro Gln Ser Val Leu Ser Phe Ser Asp Glu Ser Ile Asn Ala Glu
                325                 330                 335
```

```
Asp Ser Leu Pro Tyr His Asp Leu Gln Leu Pro Val Asp Asp Leu Asp
            340                 345                 350
Pro Phe Arg Gly Ile Met Ile Pro Ala Val Asp Asp Glu Ile Asp Glu
        355                 360                 365
Phe Gly Met Thr His Gly Trp Asp Arg Arg Leu Ala Val
    370                 375                 380
```

<210> 30559
<211> 117
<212> PRT
<213> A.fumigatus

<400> 30559

```
Phe Arg Leu Asp Val Phe Thr Lys Gly Leu Lys Glu Gln Gly Arg Pro
1               5                   10                  15
Leu Ser Val Ile Ser Thr Gln Ala Leu Thr Ala Ser Pro Pro Ala Ile
            20                  25                  30
Ser His Ala Arg Ile Asp Gln Ala Ile Lys Thr Thr Pro Arg Leu Val
        35                  40                  45
Ser Asp Gln Leu Ile Asn Ile Phe Phe Gln Glu Trp Ala Pro Leu Tyr
    50                  55                  60
Pro Val Val His Arg Pro Thr Ile Leu Lys Ala Tyr Glu Lys Tyr Leu
65                  70                  75                  80
Ser Asn Thr Glu Ser Val Gln Gly Ser Thr His Asp Met Val Gln Leu
                85                  90                  95
Asn Leu Ile Phe Gly Ile Ala Ala Leu Ala Ser Ser Val Arg Asn Cys
            100                 105                 110
Val Trp Ile Cys Met
        115
```

<210> 30560
<211> 273
<212> PRT
<213> A.fumigatus

<400> 30560

```
Ser Val Ser Ser Pro Ser Thr Leu Asp Gly Ser Arg Thr Arg Gly Met
1               5                   10                  15
Phe Tyr Ser Gln Ser His Ser Phe Thr Ala Ala Leu Thr Gly Leu Pro
            20                  25                  30
Val Leu Leu Arg Glu Glu Asp Val Arg Thr Glu Tyr Pro Glu Asp Val
        35                  40                  45
Asp Asp Glu Asn Val Thr Glu Thr Asp Phe Leu Pro Thr Leu Pro Gly
    50                  55                  60
Glu Ser Thr Arg Ile Ser Ser Ala Leu Ala Leu Phe Gly Ala Ser Arg
65                  70                  75                  80
Val Leu Asn Lys Ala Leu Glu Tyr Ile Phe Pro Ser Asp Gly Gly Tyr
                85                  90                  95
Glu Val Val Val Ser Lys Met Arg Ser Val Ala Glu Gln Leu Asp Thr
            100                 105                 110
Trp Val Lys Thr Leu Pro Ala His Leu Arg Leu Glu Phe Ser Gln Asp
        115                 120                 125
Lys Pro Ser Thr Asn Ile Thr Ser Ser Arg Ser Pro Leu Leu Val Ser
    130                 135                 140
Cys Leu Gly Arg Arg Ser Gln Arg Leu Cys Ser Thr Leu Thr Ser Ala
145                 150                 155                 160
```

```
Leu Leu Ser Leu Trp Phe Ile Ile Ile Ser Val Leu Ser Phe Ile Ala
                165                 170                 175
Pro Leu Ser Ala Leu Val Lys Ser Thr Phe Gly His His Arg Phe Trp
            180                 185                 190
Leu His Leu Thr Arg Ala Ser Ile Leu Phe Arg Ser Tyr Ser Cys Leu
        195                 200                 205
Thr Lys Gly Val Phe Val Ser Arg Ser Val Ser Thr Gly Lys Ser Trp
    210                 215                 220
Cys Ser Arg Leu Val Trp Gly Phe Cys Gly Lys Thr Arg Asp Ser Asn
225                 230                 235                 240
Ala Lys Val Asn Ser Ser Arg Ser Ala Arg Ser Cys Ser Pro Arg Leu
                245                 250                 255
Leu Ile Asn Ser Asn Pro Ser Arg Leu Arg Gln Gln Gln Ser Ser Ala
            260                 265                 270
Arg
```

<210> 30561
<211> 120
<212> PRT
<213> A.fumigatus

<400> 30561

```
Ser Arg Thr Asn Gln Asp Pro Thr Phe Phe Glu Asp Asn Trp Ser Ser
1               5                   10                  15
Thr Leu Glu Ser Leu Ala Asn Ser Ile Ser Ile Ser Thr Leu Gln Cys
            20                  25                  30
Tyr Val Leu Ala Gln Met Tyr Cys Met Thr Lys Gly Asp Tyr Thr Gly
        35                  40                  45
Leu Leu Arg Tyr Arg Gly Leu Ala Val Gly Leu Cys His Gln Leu Arg
    50                  55                  60
Leu His Gln Ser Gln Lys Arg Phe Ser Ser Asn Pro Leu Val Ala Glu
65                  70                  75                  80
Thr Arg Lys Lys Val Phe Trp Cys Gln Tyr Val Leu Asp Arg Leu Val
                85                  90                  95
Pro Arg Leu Pro Trp Met Val Arg Glu Leu Glu Glu Cys Phe Thr His
            100                 105                 110
Lys Ala Thr Val Ser Pro Leu Leu
        115                 120
```

<210> 30562
<211> 184
<212> PRT
<213> A.fumigatus

<400> 30562

```
Arg Leu Gln Thr Thr Glu Asn Ser Val Tyr Tyr Ile Thr His Gln Gly
1               5                   10                  15
Val Tyr Arg Lys Met Pro Ser Leu Gln Gln Arg Lys Leu Ala Phe Ile
            20                  25                  30
Gly Gly Gly Asn Met Ala Ser Ala Ile Ile Gly Gly Leu Val Ser Gln
        35                  40                  45
Asp Met Asn Pro Ala Asn Ile Thr Val Ser Glu Pro Trp Asp Val Asn
    50                  55                  60
Arg Glu Lys Ile Ala Lys Leu Gly Val Gln Thr Thr Thr Ser Asn Gly
65                  70                  75                  80
```

```
Glu Ala Ala Ala Asn Ala Asp Ile Val Ile Ile Ala Val Lys Pro Gln
                85                  90                  95
Thr Thr Lys Asn Val Cys Gln Glu Leu Ala Thr Ala Trp Ser Gln Arg
            100                 105                 110
Thr Ser Leu Pro Val Val Val Ser Ile Ala Ala Gly Ile Thr Leu Asn
        115                 120                 125
Ser Met Lys Glu Trp Leu Arg Thr Asn Asp Gly Arg Thr Ala His Ile
    130                 135                 140
Val Arg Val Met Pro Asn Thr Pro Ala Leu Val Lys Glu Gly Ala Ser
145                 150                 155                 160
Gly Leu Leu Ala Ser Asp Asp Val Thr Ala Glu Glu Lys Glu Leu Ile
                165                 170                 175
Gly Ala Leu Leu Gln Ser Val Cys
            180
```

<210> 30563
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30563

```
Leu Thr Arg Ile Ser Met Leu Thr Met Met Leu Asn Gly Asn Phe Leu
1               5                   10                  15
Asp Ile Glu Gln Leu Val Gln Ser Gln Gln Tyr Leu Lys Ala Ile Lys
            20                  25                  30
Arg Gln Leu Pro Leu Ile Ile Arg Arg Lys Met Val Leu His Met Glu
        35                  40                  45
Leu Gln Trp Gln Lys Ile Val Trp Val Gly Lys Glu Gln Gln Gly Gln
    50                  55                  60
Ser Ser Asn Asp Gln Ile Thr Arg
65                  70
```

<210> 30564
<211> 139
<212> PRT
<213> A.fumigatus

<400> 30564

```
Pro Val Asp Pro Leu Gly Pro Leu Gly Asp Lys Pro Thr Asp Ser Leu
1               5                   10                  15
Ala Pro Val Asn Glu Gln Ala Pro Ile Pro Pro Gln Lys Glu Pro Phe
            20                  25                  30
Ala Gly Arg Gly Ala Arg Pro Thr Ser Ser Thr Ser Arg Thr Ser Ser
        35                  40                  45
Ala Gly Gly Leu Gly Asp Ser Val His Leu Glu Glu Asp Gly Ala Gly
    50                  55                  60
Phe Arg Gly Pro Pro Pro Val Gln Pro Pro Val Asp Ala Asp Gly Thr
65                  70                  75                  80
Lys Arg Gln Ser Gln Pro Ser Ile Ser Ile Glu Glu Ala Ala Lys Pro
                85                  90                  95
Thr Phe Glu Ile Thr Val Gly Asp Pro His Lys Val Gly Asp Leu Thr
            100                 105                 110
Ser Ser His Ile Val Tyr Gln Val Arg Thr Lys Val Thr Ser Pro Leu
        115                 120                 125
His Ile Ser Ile His Ala Trp Asp Ala Arg Leu
    130                 135
```

<210> 30565
<211> 149
<212> PRT
<213> A.fumigatus

<400> 30565
Tyr Ala Ala Gln Thr Thr Ser Lys Ala Tyr Arg Gln Pro Glu Phe Thr
1 5 10 15
Val Ser Arg Arg Tyr Arg Asp Phe Leu Trp Leu Tyr Asn Ser Met His
20 25 30
Asn Asn Asn Pro Gly Val Val Val Pro Pro Pro Pro Glu Lys Gln Ala
35 40 45
Val Gly Arg Phe Asp Thr Asn Phe Val Glu Ser Arg Arg Ala Ala Leu
50 55 60
Glu Arg Met Leu Asn Lys Ile Ala Ala His Pro Ile Leu Gln His Asp
65 70 75 80
Ala Asp Leu Lys Ile Phe Leu Glu Ser Glu Ser Phe Asn Met Asp Val
85 90 95
Lys Asn Lys Glu Asn Arg Glu Pro Asp Leu Gly Gln Asn Lys Gly Met
100 105 110
Phe Ser Ser Phe Gly Ile Ser Val Gly Gly Gly Gly Lys Phe Val Glu
115 120 125
His Asp Asp Val Ser Phe Leu Trp Phe Ala Tyr Ser Gln Val Ile Lys
130 135 140
Leu Thr Arg Val Glu
145

<210> 30566
<211> 167
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (154)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30566
Trp Phe His Asp Arg Lys Ile Tyr Met Asp Ala Leu Glu Asn Gln Leu
1 5 10 15
Lys Ala Leu Leu Lys Ala Ile Asp Val Val Val Ala Gln Arg Lys Gly
20 25 30
Leu Ala Glu Ala Ala Gly Asp Phe Ser Ser Ser Leu His Ala Leu Ala
35 40 45
Ala Val Glu Leu Ser Pro Ala Leu Ser Ser Pro Leu Asp Gly Leu Ser
50 55 60
Glu Leu Gln Leu Arg Ile Lys Glu Leu Tyr Glu Arg Gln Ala Gln Gln
65 70 75 80
Asp Val Leu Thr Leu Gly Ile Thr Ile Asp Glu Tyr Leu Arg Ile Ile
85 90 95
Gly Ser Val Lys Thr Ala Phe Ser Gln Arg Gln Lys Ala Phe His Ser
100 105 110
Trp His Ala Ala Glu Ser Glu Leu Gln Lys Arg Lys His Thr Gln Glu
115 120 125
Lys Leu Leu Arg Gln Gly Lys Thr Gln Gln Asp Arg Leu Asn Gln Ala

```
    130                 135                 140
Asn Ser Asp Val Ala Asp Thr Glu Arg Xaa Cys Thr Arg Pro Ser Cys
145                 150                 155                 160
Tyr Ser Thr Thr Trp Ala Leu
                165
```

<210> 30567
<211> 63
<212> PRT
<213> A.fumigatus

<400> 30567

```
Leu Arg Gly Gly His Pro Pro Phe Asp Gln Arg Leu Arg Tyr Phe Ser
1               5                   10                  15
Ser Ala Glu Met Thr Ile Ile Ile Asn His Ile Arg Glu Phe Ile Ser
            20                  25                  30
Lys Pro Gln Ile His Ser Gln Pro Pro Ile Arg Phe Phe Thr Asn Thr
        35                  40                  45
Gly Phe Leu Gly Gly Gly Glu Ser Phe Phe Phe Leu Val Phe Leu
    50                  55                  60
```

<210> 30568
<211> 68
<212> PRT
<213> A.fumigatus

<400> 30568

```
Trp Trp Thr Glu Leu Cys Ala Asp Ala His Gln Gln Asn Ile Ile Ile
1               5                   10                  15
Ile Ile Thr Leu Ala Asn Ala Ala Ala Ile Leu Asp Leu Cys Leu Trp
            20                  25                  30
Val Ile Leu Pro Phe Phe Leu Leu Leu Glu Gly Val Phe Gly Pro Met
        35                  40                  45
Gln Leu Arg Val Cys Gly Gly Thr Gln Ala His Met Asn Arg Pro Thr
    50                  55                  60
Thr Leu Arg Phe
65
```

<210> 30569
<211> 415
<212> PRT
<213> A.fumigatus

<400> 30569

```
Thr Arg Leu Tyr Arg Ala Thr Ser Leu Phe Leu Ile Asn Leu Ser Val
1               5                   10                  15
Leu Ile Val Leu Cys Val Ser Pro Ala Ile Cys Thr Asp Lys Ser Pro
            20                  25                  30
Arg Ala Met Glu Thr Thr Glu Pro Ile Phe Ser Ala Val Ser Ser Asn
        35                  40                  45
Ala His Gln Leu Tyr Thr Leu Leu Gln Cys Ile Gly Phe Val Pro Lys
    50                  55                  60
Ala Thr Val Gln Ile Thr Pro Asp Gly Ile Arg Phe Ser Ala Glu Glu
65                  70                  75                  80
Thr Arg Val Ile Gln Gly Leu Ala Phe Leu Asp Lys Ala Leu Phe Thr
                85                  90                  95
```

```
Ser Tyr Thr Phe Asn Pro Pro Lys Thr Pro Asn Asn Glu Ala Asn Asp
            100                 105                 110
Ala Asp Asn His Asp Asn Thr Thr Asp Thr Ala Tyr Tyr Pro Cys Phe
        115                 120                 125
Val Val Ser Leu Ser Ala Leu Leu Glu Thr Leu Lys Ile Phe Gly Ile
    130                 135                 140
Asn Glu Ala Pro Ser Gly Ser Phe Ser Arg Ala Ala Ser Val Gln Pro
145                 150                 155                 160
Pro Asn Pro Ala Ala Ser Ser Ala Phe Thr Phe Pro Ala Leu Leu Leu
                165                 170                 175
Ala Arg Ser Cys Thr Ile Gln Tyr Thr His Glu Gly Ala Pro Leu Ser
            180                 185                 190
Ile Thr Leu Ser Glu Thr Gly Val Lys Thr Thr Cys Asp Leu Thr Thr
        195                 200                 205
Tyr Glu Pro Glu Asp Thr Asp Thr Asp Ile Pro Phe Gln Arg Asp Gly
    210                 215                 220
Ile Val Met Lys Ile Ile Met Arg Ser Ala Trp Leu His Asn Ala Ile
225                 230                 235                 240
Thr Glu Leu Gly Ala Thr Asn Pro Thr Val Leu Lys Leu Ser Ala Ser
                245                 250                 255
Ala Thr Arg Glu Pro Phe Phe Ala Leu Ser Gly Ser Gly Gly Pro Leu
            260                 265                 270
Ser Glu Ser Thr Val Glu Phe Ser Ile Glu Arg Gln Asn Gln Asn Asn
        275                 280                 285
Gly Pro Ser Gln Thr His Lys Val Leu Thr Asp Asp Gly Ser Arg Ala
    290                 295                 300
Arg Ala Lys Arg Ala Lys Leu Ala Pro Thr Val Thr Glu Thr Phe Leu
305                 310                 315                 320
Val Ser Pro Pro Ser Ser Met Gly Thr Arg Ile Asn Gln Asn Tyr Arg
                325                 330                 335
Phe Ser Met Ile Gln Lys Ala Ala Arg Ala Met Ala Val Ala Asn Lys
            340                 345                 350
Val Ser Ile Arg Gly Asp Arg Gln Gly Val Leu Ser Leu Gln Phe Met
        355                 360                 365
Ile Glu Phe Asp Asn Asn Gly His Gly Gly Ala Pro Gly Gly Met Arg
    370                 375                 380
Ser Ser Gly Ala Ser Thr Gly Gly Thr Val Thr Phe Val Asp Phe Arg
385                 390                 395                 400
Phe Val Pro Leu Leu Asp Asp Asp Asp Val Asp Leu Glu Met Asp
                405                 410                 415
```

<210> 30570
<211> 78
<212> PRT
<213> A.fumigatus

<400> 30570

```
Glu Arg Arg Lys Tyr Pro Arg Glu Pro Phe Ile Ile Ala His Ser Lys
1               5                   10                  15
Leu Asp Phe His Leu Val Ala Leu Leu Arg Gln Arg Ala Met Arg Gly
            20                  25                  30
Met Asn Ile Ser Arg Arg Val Gly Leu Thr Phe Thr Ser Glu Ala His
        35                  40                  45
Leu Phe Trp Glu Gly Asn Asp Pro Gln Arg Trp Leu Pro Gln Arg Phe
    50                  55                  60
Ile Phe Gly Leu Gln Gln Thr Leu Ser Glu Gly Gln Gln Lys
```

65 70 75

<210> 30571
<211> 65
<212> PRT
<213> A.fumigatus

<400> 30571
Leu Ser Phe Val Lys Ile Cys Leu Cys Met Met Ile Ala Ile Ala Ile
1 5 10 15
Ile Thr Leu Gly Phe Ile Val Ala Leu Asn Gly Ser Lys Lys Leu Val
20 25 30
Gln Leu Gly Phe Gln Val Cys Gln Met Val Phe Glu Tyr Phe Ser Cys
35 40 45
Phe Phe Thr Pro Tyr Arg Gly Gln Lys Thr Leu Ser Asp Leu Ser Leu
50 55 60
Arg
65

<210> 30572
<211> 65
<212> PRT
<213> A.fumigatus

<400> 30572
Ile Val Tyr Leu Arg Ala Asp Pro Ser Ser Pro Val Val Lys Thr Glu
1 5 10 15
Ala Phe Ile Arg Ala Ala Glu Glu Met Met Thr Lys Asp Leu Asp Asp
20 25 30
Asn Met Lys Ile Gly Gln Asn Gly Ala Glu Trp Ile Ile Lys His Ala
35 40 45
Leu Ala Arg His Lys Ser Thr Ala Thr Val Leu Thr His Cys Asn Thr
50 55 60
Gly
65

<210> 30573
<211> 214
<212> PRT
<213> A.fumigatus

<400> 30573
Met Asp Ser Ile Ser Ser Leu Ala Thr Ser Gly Tyr Gly Thr Ala Leu
1 5 10 15
Gly Val Ile Arg Ser Leu Ala Ser Lys Lys Ala Leu Glu His Ala Tyr
20 25 30
Cys Thr Glu Thr Arg Pro Tyr Asn Gln Gly Ser Arg Leu Thr Ala Phe
35 40 45
Glu Leu Val His Asp Arg Leu Pro Ala Thr Leu Ile Thr Asp Ser Met
50 55 60
Val Ala Ala Leu Leu Ala Ser Thr Lys Ala Glu Val Asp Ala Ile Val
65 70 75 80
Val Gly Ala Asp Arg Val Ala Ala Asn Gly Asp Thr Ala Asn Lys Ile
85 90 95
Gly Thr Tyr Gly Leu Ala Val Leu Ala Lys Tyr His Gly Val Lys Phe
100 105 110

```
Leu Val Ala Ala Pro Leu Thr Thr Ile Asp Leu Gly Thr Lys Ser Gly
        115                 120                 125
Glu Asp Ile Val Ile Glu Glu Arg Pro Ser Ala Glu Val Thr Lys Ile
    130                 135                 140
Arg Gly Pro Val Asp Gly Asp His Pro Ala Asp Ile Val Lys Leu Glu
145                 150                 155                 160
Thr Val His Ile Ala Ala Lys Gly Ile Asp Val Trp Asn Pro Ala Phe
                165                 170                 175
Asp Val Thr Pro Ser Thr Leu Ile Asp Gly Ile Ile Thr Glu Val Gly
            180                 185                 190
Val Ile Glu Lys Glu Ala Asp Gly Gln Phe His Leu Glu Arg Leu Phe
        195                 200                 205
Ile Asp Asn Ser Ala Ser
    210
```

<210> 30574
<211> 83
<212> PRT
<213> A.fumigatus

<400> 30574

```
Ser Ser Val Phe Arg Ile Gly Val Gly Ser Trp Arg Val Phe Lys Ser
1               5                   10                  15
Asn Phe Ala Gln Leu Tyr Val Phe Asp Leu Ala Gln Gly Val Tyr Phe
            20                  25                  30
Ile Thr Pro Ile Ile Ser Ser Leu Ser Gly Met Phe Ser Cys Leu Tyr
        35                  40                  45
Ala Ile Ile Gly Trp Leu Leu Ser Phe Trp Thr Ala Phe Leu Trp Leu
    50                  55                  60
Ser Gly Tyr Lys Thr Thr Thr Leu Gly Cys Pro Tyr Pro Ala Phe Tyr
65                  70                  75                  80
Tyr His Val
```

<210> 30575
<211> 85
<212> PRT
<213> A.fumigatus

<400> 30575

```
Phe Glu Asn Thr Pro Arg Thr Asp Ala Asn Ser Glu Tyr Ala Arg Leu
1               5                   10                  15
Thr Ala Gln Gln Asp Lys Cys His Leu Leu Leu Leu Ser Thr Cys Met
            20                  25                  30
Leu Arg Gly Val His Val Pro Pro Ile Leu Ser Leu Thr Val Ser Glu
        35                  40                  45
Val Tyr Lys Asp Leu His Pro Ile Glu Ser Ser Arg Ser Ser Asn Ser
    50                  55                  60
Ser Arg Leu Ala Arg Lys Leu Ala Pro Pro Gly Val Ala Met Leu Gly
65                  70                  75                  80
Met Pro Ser Ala Thr
                85
```

<210> 30576
<211> 93
<212> PRT

<213> A.fumigatus

<220>
<221> UNSURE
<222> (60),(76)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30576
Phe Pro Gln Phe Val Arg Asn Gly Lys Thr Pro Lys Val Phe Ile Pro
1 5 10 15
Gly Lys Pro Thr Lys Lys Lys Ser Trp Pro Val Arg Trp Arg Val Arg
20 25 30
Gln Leu Phe Val Ser Val Ser Gln Asp Arg Thr Val Lys Ile Trp Ser
35 40 45
Thr Glu Glu Gly Ser Val Val Val Ser Phe Gly Xaa His Lys Arg Gly
50 55 60
Val Trp Ser Val Arg Phe Ala Ala Lys Arg Ser Xaa Gln Gln Ala Glu
65 70 75 80
Ala Gly Gln Thr His Arg Ala Asp Ala Thr Gly Leu Gly
85 90

<210> 30577
<211> 354
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (53)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30577
Thr Ser Ser Leu Glu Leu Ser Asp Tyr Ser Cys Leu Leu Thr Phe Glu
1 5 10 15
Gly His Thr Asn Ser Val Val Lys Val Ile Trp Leu Pro Pro Ser Glu
20 25 30
Leu Ser Ile Lys Ala Glu Asp Ala Glu Glu Asp Asp Thr Asp Ala Ser
35 40 45
Ala Arg Lys Ile Xaa Thr Gln Pro Lys Pro Leu Ile Ala Ser Ala Ala
50 55 60
Ala Asp Gly Leu Val Lys Ile Trp Ser Pro Tyr Thr Gly Glu Val Glu
65 70 75 80
Thr Thr Leu Asp Asn His Glu Asp Arg Val Trp Ala Leu Ala Ser Pro
85 90 95
Thr Pro Ser Gly Ser Arg Ala Asp Val Lys Ser Ser Pro Ser Gln Lys
100 105 110
Ala Ala Thr Pro Tyr Ala Leu Ala Ser Gly Ser Ala Asp Ser Thr Val
115 120 125
Thr Phe Trp Thr Asp Thr Thr Ser Ala Thr Tyr Thr Ala Ala Val Ser
130 135 140
Ala Asn Ser Ala Arg Ile Glu Gln Asp Gln Lys Leu Gln Asn Tyr Ile
145 150 155 160
Arg Ala Gly Ala Tyr Arg Glu Ala Ile Thr Leu Ala Leu Gln Leu Asn
165 170 175
His Pro Ala Arg Leu Leu Ser Ile Phe Thr Thr Ala Ile Asp Ala Ala
180 185 190

```
Asp Asn Pro Tyr Ser Ser Asp Ser Asp Lys Asp Glu Arg Val Asn Ser
        195                 200                 205
Leu Thr Gly Asp Ala Ser Ile Asp Glu Val Leu Gln Ser Leu Asp Pro
    210                 215                 220
Ser Asn Leu Arg Leu Leu Leu Leu Arg Leu Arg Asp Trp Asn Thr Asn
225                 230                 235                 240
Ala Arg Thr Ser Arg Val Ala Gln Arg Ile Leu Tyr Ala Leu Phe Arg
                245                 250                 255
Ser Tyr Pro Ala Ser Thr Phe Val Glu Leu Ala Thr Ser Ser Met Ala
            260                 265                 270
Lys Arg Gly Ser Asp Arg Arg Thr Ala Ala Gly Met Arg Asp Ile Leu
        275                 280                 285
Gln Ala Leu Ala Ala Tyr Thr Glu Arg His Tyr Arg Arg Val Glu Glu
    290                 295                 300
Leu Thr Asp Glu Ser Phe Leu Val Glu Trp Val Leu Gly Glu Met Asp
305                 310                 315                 320
Gly Gly Val Gly Leu Leu Gly Gly Pro Gly Val Ser Ser Thr Ser Glu
                325                 330                 335
Ala Asn Gly Asp Gln Val His Glu His Glu Lys Asp Phe Ile Met Leu
            340                 345                 350
Gly Val
```

<210> 30578
<211> 358
<212> PRT
<213> A.fumigatus

<400> 30578

```
Leu Asn Gln Lys Arg Asp Asp Ala Asn Gly Gly Thr Glu Pro Ser Ser
1               5                   10                  15
Pro Phe Ser Arg Lys Arg Arg Thr Leu Asp Ser Gln Arg Ser Ser Arg
            20                  25                  30
Arg Tyr Ser Thr Gly Thr Gly Arg Gly Ile Leu Gly Val Glu Asp Ile
        35                  40                  45
Gln Val His Pro Ala Thr Met Arg Gln Glu Ile Ile Ala Ala Ser Arg
    50                  55                  60
Asn Arg Phe Asp Asp Val Ser Ser Glu Ser Asp Ser Asp Gln Arg Glu
65                  70                  75                  80
Gly Asp Glu Gly Asp Gly Gln Pro Ser Glu Arg Thr Asn Leu Leu Gly
                85                  90                  95
Ser Lys Asp Arg Ala Thr Asn Tyr Thr Asp Glu Ser Asp Thr Ala Tyr
            100                 105                 110
Lys Arg Gln Glu Pro Ile Gly Asp Asp Asp Ile His Lys Ser His Asn
        115                 120                 125
His Ala Gln Pro Lys Pro Lys Glu Gly Lys His Gly His Gly His Gly
    130                 135                 140
His Asp Leu Asn Met Arg Gly Val Phe Leu His Val Met Gly Asp Ala
145                 150                 155                 160
Leu Gly Asn Ile Gly Val Ile Val Ser Ala Leu Val Ile Trp Leu Thr
                165                 170                 175
Asp Tyr Ser Trp Arg Phe Tyr Val Asp Pro Gly Ile Ser Leu Leu Ile
            180                 185                 190
Thr Val Ile Ile Leu Ala Ser Ala Ile Pro Leu Cys Lys Ala Ala Ser
        195                 200                 205
Arg Ile Leu Leu Gln Ala Val Pro Ala Gly Leu Ser Ile Asp His Ile
```

```
    210                 215                 220
Lys Glu Asp Ile Glu Arg Leu Pro Gly Val Ile Gly Ser His His Leu
225                 230                 235                 240
His Val Trp Gln Leu Ser Asp Thr Lys Leu Val Ala Ser Ile His Ile
                245                 250                 255
Gln Val Asp Thr Glu Ile Lys Gly Glu Gly Ser Glu Arg Tyr Met Arg
            260                 265                 270
Leu Ala Arg Gln Val Arg Lys Cys Leu His Ala Tyr Gly Ile His Ser
        275                 280                 285
Ser Thr Ile Gln Pro Glu Phe Ala Pro Asp Ser Asp Ala Glu Asp Thr
    290                 295                 300
Gln Ala Leu Pro Ser Ser Ser Arg Gly Ser Asn Asp Glu Pro Ser Gly
305                 310                 315                 320
Ser Ser Lys Leu Pro Ser Gln Ala Pro Ser Val Arg Asp Gly Asp Pro
                325                 330                 335
Gln Ala Cys Leu Leu Glu Cys Gly Glu Glu Cys Ala Gln Lys Gly Gln
            340                 345                 350
Cys Cys Pro Lys Lys Ser
        355
```

Sequence Listing

<210> 30579
<211> 75
<212> PRT
<213> A.fumigatus

<400> 30579

```
Leu Phe Ala Pro Arg Tyr Tyr Tyr Cys Pro Val Glu Val Ser Leu Ala
1               5                   10                  15
Asn Asp Glu Arg Asp Gly Ile Thr Leu Pro Thr Thr Ala Tyr Leu Tyr
            20                  25                  30
Ile Ser Ala Leu Leu Ser Tyr Ser Ser Val Thr Leu Leu Tyr Leu His
        35                  40                  45
Phe Leu Gln His Asp Thr Leu Ile Cys Leu Ser Arg Gln Asn Leu Pro
    50                  55                  60
Ala Leu Leu Leu Cys Tyr Arg Ala Leu Leu Phe
65                  70                  75
```

<210> 30580
<211> 165
<212> PRT
<213> A.fumigatus

<400> 30580

```
Trp Gln Arg Ala Glu Thr Leu Gly Ala Leu Val Asn Gly Val Phe Leu
1               5                   10                  15
Val Ala Leu Cys Leu Ser Ile Phe Leu Glu Ala Ile Gln Arg Leu Val
            20                  25                  30
Glu Pro Gln Glu Val Lys Asn Pro Lys Leu Val Cys Thr Val Gly Cys
        35                  40                  45
Leu Gly Leu Leu Ser Asn Ile Leu Gly Leu Val Leu Phe His Asp His
    50                  55                  60
Ser His Ala His Gly His Ala Asp Asp His Ser Asn Glu Asp Ile Glu
65                  70                  75                  80
Asp Val Asp Ala Ala Glu Gln Gly Leu Ala His Gly His Gly Glu Thr
                85                  90                  95
Thr Val Ala Asp Lys Arg Ala Ser Thr Ala Thr Val Asn Thr Pro His
```

```
            100                 105                 110
Pro Leu Ser Thr Leu Leu Trp Leu Thr Glu Ser Lys Ala Arg Arg Cys
        115                 120                 125
Lys Arg Trp Asp Arg Thr Ile Phe Ser Phe Leu Thr Glu Ala Pro Asp
    130                 135                 140
Ser Gly Leu Ser Thr Gln Phe Ser Ser Val Gln His Gly Asn Trp Thr
145                 150                 155                 160
Trp Tyr Leu Gly Cys
                165
```

<210> 30581
<211> 87
<212> PRT
<213> A.fumigatus

<400> 30581

```
Val Val Ile Cys Met Ser Met Gly Val Arg Val Val Met Lys Gln Asp
1               5                   10                  15
Glu Pro Lys Tyr Ile Arg Lys Glu Ala Gln Ala Ser Asn Ser Ala Asn
            20                  25                  30
Gln Leu Arg Ile Leu His Phe Leu Trp Leu Asp Glu Ser Leu Asp Cys
        35                  40                  45
Phe Glu Glu Asn Gly Gln Thr Gln Arg Asn Glu Glu Asp Thr Val His
    50                  55                  60
Gln Gly Thr Glu Gly Phe Arg Thr Leu Pro Leu Ile Gln Arg Lys Arg
65                  70                  75                  80
Leu Ala Leu Leu Leu Leu Ile
                85
```

<210> 30582
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30582

```
His Ile Pro Leu Phe Val Ile Leu Phe Glu Ile Ala Thr Leu Tyr Leu
1               5                   10                  15
Val Arg Leu Lys His Thr Leu Phe Phe Leu Ile Lys Ala Leu Ala Gln
            20                  25                  30
Val Leu Arg Arg Leu Leu Gln Gly Thr Gln His Leu Ala Pro Phe Cys
        35                  40                  45
Asn Asn Asn Arg Asp Ile Ile Cys Arg Ser Ile Val Ser Cys Arg Val
    50                  55                  60
Trp Pro Lys
65
```

<210> 30583
<211> 168
<212> PRT
<213> A.fumigatus

<400> 30583

```
Ser Val Ser Asn Lys Ser Thr Asp Val Val Cys Lys His Gly Pro Ala
1               5                   10                  15
Glu Cys Ile Gly Asp Met Leu Ile Leu Cys Ala Ala Asn Leu Pro Phe
            20                  25                  30
```

```
Pro Pro Glu Gly Arg Ser Met Pro Arg Thr Pro Thr Ile Arg Ser Leu
        35                  40                  45
Gly Phe Ala Asn Cys Leu Ile Ser Ser Tyr Glu Lys Ile Pro Glu Arg
    50                  55                  60
Ser Phe Val Glu Gln Cys Ala Leu Glu His Gly Ile Asp Phe Asp Ala
65                  70                  75                  80
Leu Asn Glu Cys Ala Ser Gln Gln Asn Asp Asp Pro Gly His His Gly
                85                  90                  95
Gly Asp Lys Asp Pro Leu Ser Gly Ile Ala Leu Leu Arg Lys Ser Ala
            100                 105                 110
Leu Tyr Ser Glu Ala Leu Gly Val Arg Thr Ser Cys Thr Val Arg Leu
        115                 120                 125
Asp Glu Gln Val Trp Cys Val Arg Asp Asp Gly Leu Trp Lys Asp Cys
    130                 135                 140
Ala Gln Gly Gly Arg Gly Ser Gln Ile Ser Val Leu Val Glu Glu Ile
145                 150                 155                 160
Glu Arg Ile Trp Arg Glu Arg Asn
                165
```

<210> 30584
<211> 104
<212> PRT
<213> A.fumigatus

```
<400> 30584
His Lys Ser His Ile Ser Val Glu Tyr Ser Asn Asn Met Val Asn Pro
1               5                   10                  15
Asn Gln Lys Thr Gly Ala Glu Thr His Thr Asp Glu Gln Lys Arg His
            20                  25                  30
Phe Tyr Asp Ser Leu Thr Glu Asp Gln Lys Lys Lys Gln Thr Phe Gly
        35                  40                  45
Glu Trp Val Lys Glu Ala Tyr Asn Asp Gln Tyr Glu Lys Trp Met Pro
    50                  55                  60
Trp Leu Glu Glu Gln Tyr Leu Lys Trp Phe Gly Lys Gly Asp Asn Lys
65                  70                  75                  80
Ala Ser Tyr Val Ala Lys Gly Lys Lys Ser Pro Phe Leu Ile Tyr Ile
                85                  90                  95
Arg Lys Met Thr Leu Ser Ile Ser
            100
```

<210> 30585
<211> 73
<212> PRT
<213> A.fumigatus

```
<400> 30585
Ala Arg Leu Asp Ser Leu Ser Lys Ser Lys Val Ser Gly Ile Lys Gln
1               5                   10                  15
Ile Asp Gln Val Gln Asp Asp Val His Asn Leu Ala Gly Asn Gln Leu
            20                  25                  30
Gly Glu Asn Gly Phe Leu Ala Pro Val Gly Tyr Met Ile Ser Ile Glu
        35                  40                  45
Gly Ile Ile Arg Ala Glu Arg Asn Gly Lys Asp Asp Asp Gly Ser Tyr
    50                  55                  60
Asn Gly Pro Leu Gly Gly Val Ser Glu
65                  70
```

<210> 30586
<211> 82
<212> PRT
<213> A.fumigatus

<400> 30586
Lys Glu Gln Asn Ile Thr Pro Leu Ile Phe Pro Thr Thr Cys Phe Ile
1 5 10 15
Gln Thr Leu Leu Ile Met Arg Phe Leu Pro Trp Ala Val Ala Ile Leu
20 25 30
Ser Ala Val Cys Val Gln Ala Asn Glu Trp His Ala Tyr Tyr Arg Leu
35 40 45
Thr Ser Asp Ala Tyr Gln Ala Lys Phe Asn Asp Leu Val Gly Gln Gly
50 55 60
Tyr Arg Leu Asn Ser Val Ser Gly Tyr Asp Arg Asn Gly Gln Pro Asn
65 70 75 80
Phe Ala

<210> 30587
<211> 85
<212> PRT
<213> A.fumigatus

<400> 30587
Thr Cys Leu Pro Leu Gln Asn Thr Ser Leu Pro Gly Thr Thr Trp Thr
1 5 10 15
Thr Thr Gly Met Phe Ile Pro Ala Phe Ala Ile Leu Thr Ala Tyr Ile
20 25 30
Cys Ser Ile Asn Leu Gln His Tyr Leu Val Val Gln Leu Phe Gly Tyr
35 40 45
Arg Ile His Pro Ser Ile Pro Val Lys Asp Val Asn Asn Leu Arg Ile
50 55 60
Ala Asp Val Gly Thr Gly Thr Gly Tyr Val Lys Leu Asp Leu Leu Asp
65 70 75 80
Gly Ser Phe Ser His
85

<210> 30588
<211> 114
<212> PRT
<213> A.fumigatus

<400> 30588
Arg Arg Cys Asn Ala Gly Asp Met Arg Tyr Gly Gly Val Gly Leu His
1 5 10 15
Gln Ala Arg Val Ile Ala Ile Asp Pro Val Met Ile Gln Thr Trp Ala
20 25 30
Lys Phe Leu Leu Ala Ile Ala Phe Ile Tyr Ile Phe Ser Val Ile Leu
35 40 45
Pro Lys Leu Ala Val Leu Ser Leu Tyr Ile Ser Ile Phe Asn Arg His
50 55 60
Arg Ala Ser Arg Ile Thr Cys Tyr Val Thr Gly Phe Leu Met Ile Gly
65 70 75 80
Asn Cys Ile Gly Cys Ala Ala Ala Gly Phe Ala Val Cys Thr Pro Leu

```
                85                  90                  95
Arg Lys Leu Trp Glu Pro Gln Val Asp Gly His Cys Val Asn Ile Asn
            100                 105                 110
Ala Trp
```

<210> 30589
<211> 244
<212> PRT
<213> A.fumigatus

<400> 30589

```
Met Ala Ala Ser His Thr Asp Arg Ile Trp Leu Thr Asp Leu Ala Asp
1               5                   10                  15
Glu Phe Pro Ala Thr Val Gln Leu Asp Gly Leu Asp Val Ser Phe Asp
            20                  25                  30
Ala Ala Pro Pro Arg Asp Trp Leu Pro Pro Asn Met Ser Leu His His
        35                  40                  45
Trp Asp Ile Lys Ala Lys Val Pro Glu His Leu Val Gly Val Tyr Asp
    50                  55                  60
Val Val Asn Val Arg His Phe Val Phe Val Leu Gln Gln Ser Asp Met
65                  70                  75                  80
Lys Gly Val Leu Asp Asn Leu Phe Lys Leu Leu Ser Thr Ser Asp Ser
                85                  90                  95
Phe Tyr Asn Phe Arg Ile Ser Asn Ser Trp Phe Thr Glu Pro Gly Gly
            100                 105                 110
Tyr Leu Gln Trp Thr Asp Leu Asp Met Ser Ser Leu Arg Val Glu Lys
        115                 120                 125
Ile Asn Pro Asp Ile Lys Ala Asp Ala Asn Val Lys Leu Met Gln Leu
    130                 135                 140
Phe Gln Ala Asn Asp Thr Arg Leu Arg Thr Ala Trp Gly Ala Ser Leu
145                 150                 155                 160
Pro Ser His Phe Ala Gln Ser Gly Phe Thr Asn Val Lys Ser Asp Val
                165                 170                 175
Arg Asp Ala Pro Pro His Leu Ala Val Ala Leu His Glu Cys Gly Met
            180                 185                 190
Leu Ala Thr Glu Val Leu Ala Arg Asn Lys Val Gly Gly Asn Glu Gln
        195                 200                 205
Met Val Gln Gln Leu Arg Gln Thr Leu Ala Glu Ala Ala Lys Glu Thr
    210                 215                 220
Arg Gln Gly Ser Val Leu Ala Leu Thr Arg Leu Thr Val Val Gly Gln
225                 230                 235                 240
Lys Pro Ser Gln
```

<210> 30590
<211> 84
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222>
(7),(16),(17),(18),(19),(20),(21),(22),(23),(24),(25),(30),(31),(32),(33),(34),
(35),(36),(37),(38)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30590
Lys Leu Gly Gly Val Gly Xaa Leu Phe Cys Val Gly Trp Gly Gly Xaa
1 5 10 15
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Asp Arg Arg Xaa Xaa Xaa
20 25 30
Xaa Xaa Xaa Xaa Xaa Xaa Asn Lys Lys Lys Val Phe Phe Gly Pro Ser
35 40 45
Pro Pro Trp Gly Leu Tyr Ser Asn Pro Val Ser Cys Met Thr Lys Arg
50 55 60
Pro Thr Gly Ala Pro Pro Gly Leu Gly Ile Pro Leu Val Lys Lys Asn
65 70 75 80
Arg Asp Thr Pro

<210> 30591
<211> 174
<212> PRT
<213> A.fumigatus

<400> 30591
Arg Gln Arg Ala Ala Gln Arg Leu Lys Pro Gln Thr Gly Ala Cys Thr
1 5 10 15
Thr Val Lys Ile Pro Ser Thr Arg Arg Arg Val Ala Pro Pro Gly Phe
20 25 30
Thr Glu Thr Leu Gly Ala Pro Asn Thr Lys Lys Gly Asn Gln Thr Pro
35 40 45
Ala Arg Pro Arg Pro Arg Leu Phe Ala Ser Arg Glu Gly Ala Lys Pro
50 55 60
His Lys Pro Ala Val Arg Pro Glu Glu Thr Ile Pro Ser Gln Thr Ala
65 70 75 80
Ser Val Arg Pro Cys Arg Ala Thr Ala Thr Lys Leu Gly Arg Ile Thr
85 90 95
Val Gly Lys Thr Lys Pro Ala Glu Ala Leu Ala Pro Ala Pro Ala Val
100 105 110
Ala Asp Pro Pro Ala Thr Leu Thr Ala Gln Asp Lys Lys Ile Arg Gly
115 120 125
Leu Leu Lys Lys Ile Arg Ala Ile Glu Glu Leu Lys Met Arg Leu Ala
130 135 140
Ser Gly Glu Lys Leu Glu Asp Thr Gln Val Lys Lys Ile Gln Thr Glu
145 150 155 160
Asp Ala Val Arg Lys Glu Leu Glu Ala Leu Gly Tyr Asn Gly
165 170

<210> 30592
<211> 159
<212> PRT
<213> A.fumigatus

<400> 30592
Val Ala Ser Leu Ser Pro Phe Ala Gly Pro Gly Pro Val Lys Thr Ile
1 5 10 15
Ile Ile Leu Val Glu Met Ser Thr Pro Glu Gln Ser Ser Pro Arg Ser
20 25 30
Pro Leu Arg Ala Ala Gln Arg Pro Thr Arg Val Leu Ala Cys Val Leu
35 40 45

```
Cys Gln Gln Arg Lys Val Lys Cys Asp Arg Gln Phe Pro Cys Ala Thr
    50                  55                  60
Cys Val Arg Ala Gln Met Gln Cys Val Pro Ala Thr Gln Ala Arg Arg
65                  70                  75                  80
Arg Arg Arg Val Pro Glu Arg Glu Leu Leu Asp Arg Ile Arg Arg Tyr
                85                  90                  95
Glu Asp Leu Leu Arg Gln Asn Asn Ile Gln Phe Gln Pro Leu His Asn
            100                 105                 110
Ser Val Ala Glu Gln Ala Ser Ser Ser Arg Glu Asn Arg Arg Phe Asp
        115                 120                 125
Thr Asp His Asp Glu Lys Leu Glu Arg Asp Ser Gln Lys Glu Glu Thr
    130                 135                 140
Pro Gly Thr Glu Thr Lys Tyr Glu Ala Lys Ser Ala Ser His Pro
145                 150                 155
```

<210> 30593
<211> 203
<212> PRT
<213> A.fumigatus

<400> 30593

```
Thr Arg Gln Thr Thr Asp Ala Ser Lys Ile Ser Val Arg Pro Gln Thr
1               5                   10                  15
Asp Pro Arg Ser Leu Ser Pro Ile Leu Gly Val Ala Ile Arg Ile Ala
            20                  25                  30
Leu Arg Met Gly Ile His Ser Glu Ser Ser Tyr Ser Arg Cys Thr Ile
        35                  40                  45
Leu Glu Gly Glu Met Arg Arg Arg Leu Trp Trp Ser Leu Val Leu Phe
    50                  55                  60
Asp Asn Arg Ile Cys Glu Met Ala Asp Tyr Lys Ala Ser Asn Leu Leu
65                  70                  75                  80
Pro Thr Trp Asp Cys Lys Ile Pro Leu Asn Val Asn Asp Phe Asp Leu
                85                  90                  95
Gln Pro Glu Met Lys Thr Gly Pro Thr Met His Gly Asn Pro Ser Glu
            100                 105                 110
Ala Leu Phe Ala Val Val Arg Ser Glu Val Gly Asn Phe Thr Arg Arg
        115                 120                 125
Ser Ser Phe His Leu Asp Phe Thr Asn Pro Ala Leu Lys Thr Val Ala
    130                 135                 140
Lys Glu Asn Pro Leu Pro Ala Ala Gly Ser Leu Pro Ala Phe Glu Arg
145                 150                 155                 160
Met Ile Glu Glu Lys Tyr Phe Ala Ser Cys Asn Pro Glu Asn Pro Leu
                165                 170                 175
His Phe Met Thr Ile Trp Thr Thr Arg Gly Gln Leu Ala Lys Asn Arg
            180                 185                 190
Leu Val Phe Thr Ala Gly Val Arg Gly Ser Val
        195                 200
```

<210> 30594
<211> 160
<212> PRT
<213> A.fumigatus

<400> 30594

```
Gln Ser Glu Met Tyr Asp Ile Ala Thr Gln Leu Val Met Lys Trp Ala
1               5                   10                  15
```

```
Arg His Gly Pro Thr Val Pro Ile Met Val Thr Asp Asp Phe Thr Arg
            20                  25                  30
Leu Thr Leu Asp Thr Ile Ala Leu Cys Ala Met Gly Thr Arg Phe Asn
        35                  40                  45
Ser Phe Tyr His Glu Glu Met His Pro Phe Val Glu Ala Met Val Gly
    50                  55                  60
Leu Leu Gln Gly Ser Gly Asp Arg Ala Arg Arg Pro Ala Leu Leu Asn
65                  70                  75                  80
Asn Leu Pro Thr Ser Glu Asn Ser Lys Tyr Trp Asp Asp Ile Ala Phe
                85                  90                  95
Leu Arg Asn Leu Ala Gln Glu Leu Val Glu Ala Arg Arg Lys Asn Pro
            100                 105                 110
Glu Asp Lys Lys Asp Leu Leu Asn Ala Leu Ile Leu Gly Arg Asp Pro
        115                 120                 125
Lys Thr Gly Lys Gly Leu Thr Asp Glu Ser Ile Ile Asp Asn Met Ile
    130                 135                 140
Thr Phe Leu Ile Ala Gly Met Ser Cys Thr Asn Leu Leu Leu Thr Leu
145                 150                 155                 160
```

<210> 30595
<211> 315
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (259)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30595

```
Leu Thr Ile Leu Gly His Glu Thr Thr Ser Gly Leu Leu Ser Phe Leu
1               5                  10                  15
Phe Tyr Tyr Leu Leu Lys Thr Pro Asn Ala Tyr Lys Lys Ala Gln Glu
            20                  25                  30
Glu Val Asp Ser Val Val Gly Arg Arg Lys Ile Thr Val Glu Asp Met
        35                  40                  45
Ser Arg Leu Pro Tyr Leu Asn Ala Val Met Arg Glu Thr Leu Arg Leu
    50                  55                  60
Arg Ser Thr Ala Pro Leu Ile Ala Val His Ala His Pro Glu Lys Asn
65                  70                  75                  80
Lys Glu Asp Pro Val Thr Leu Gly Gly Gly Lys Tyr Val Leu Asn Lys
                85                  90                  95
Asp Glu Pro Ile Val Ile Ile Leu Asp Lys Leu His Arg Asp Pro Gln
            100                 105                 110
Val Tyr Gly Pro Asp Ala Glu Glu Tyr Lys Pro Glu Arg Met Leu Asp
        115                 120                 125
Glu Asn Phe Glu Lys Leu Pro Lys Asn Ala Trp Lys Pro Phe Gly Asn
    130                 135                 140
Gly Met Arg Ala Cys Ile Gly Arg Pro Phe Ala Trp Gln Glu Ala Leu
145                 150                 155                 160
Leu Val Val Ala Ile Leu Leu Gln Asn Phe Asn Phe Gln Met Asp Asp
                165                 170                 175
Pro Ser Tyr Asn Leu His Ile Lys Gln Thr Leu Thr Ile Lys Pro Lys
            180                 185                 190
Asp Phe His Met Arg Ala Thr Leu Arg His Gly Leu Asp Ala Thr Lys
        195                 200                 205
```

```
Leu Gly Ile Ala Leu Ser Gly Ser Ala Asp Arg Ala Pro Pro Glu Ser
    210                 215                 220
Ser Gly Ala Ala Ser Arg Val Arg Lys Gln Ala Thr Pro Pro Ala Gly
225                 230                 235                 240
Gln Leu Lys Pro Met His Ile Phe Phe Gly Ser Asn Thr Gly Thr Cys
                245                 250                 255
Glu Thr Xaa Ala Arg Arg Leu Ala Asp Asp Ala Val Gly Tyr Gly Phe
            260                 265                 270
Ala Ala Asp Val Gln Ser Leu Asp Ser Ala Met Gln Asn Val Pro Lys
        275                 280                 285
Asp Glu Pro Val Val Phe Ile Thr Ala Ser Tyr Glu Gly Gln Pro Pro
    290                 295                 300
Asp Asn Ala Ala His Phe Phe Glu Trp Leu Ser
305                 310                 315

<210> 30596
<211> 92
<212> PRT
<213> A.fumigatus

<400> 30596
Tyr Ala Gln Gly Pro Ile Tyr Arg Leu Thr Thr Phe Gly Trp Ser Arg
1               5                   10                  15
Val Phe Val Ser Thr His Glu Leu Val Asp Glu Val Cys Asp Glu Glu
            20                  25                  30
Arg Phe Thr Lys Val Val Thr Ala Gly Leu Asn Gln Ile Arg Asn Gly
        35                  40                  45
Val His Asp Gly Leu Phe Thr Ala Asn Phe Pro Gly Glu Glu Asn Trp
    50                  55                  60
Ala Ile Ala His Arg Val Leu Val Pro Ala Phe Gly Pro Leu Ser Ile
65                  70                  75                  80
Arg Gly Met Phe Asp Gly Met Val Pro Asp Gln Pro
                85                  90

<210> 30597
<211> 77
<212> PRT
<213> A.fumigatus

<400> 30597
Phe Phe Phe Phe Leu Phe Glu Tyr Arg Leu Val Leu Phe Phe Leu Ile
1               5                   10                  15
Phe Phe Phe Arg Leu Glu Glu Tyr Phe Tyr Phe Tyr Phe Ile Leu Phe
            20                  25                  30
Ile Phe Phe Phe Val Phe Leu Thr Phe Phe Leu Ala Leu Phe Asp Arg
        35                  40                  45
Leu Ser Ser His Ser Pro Ser Lys Leu Leu Gly Thr His Leu Thr Gly
    50                  55                  60
Gln Cys Leu Asp Ala Pro Gln Thr Gly Ser Val Phe Ser
65                  70                  75

<210> 30598
<211> 365
<212> PRT
<213> A.fumigatus
```

<400> 30598
Asp Val Gly His Pro Phe Pro Arg Gly Ala Phe Leu Glu Pro Ile Ser
1 5 10 15
Tyr Arg Thr Met Ala Gln Ser Thr Val Ser Cys Tyr Leu Pro Asn Phe
20 25 30
Gly Ala Thr Cys Asp Gly Pro Lys Arg Pro Leu Ser Leu Lys Leu Arg
35 40 45
Thr Asp Ala Leu Gln Ser Ser Gly Leu Leu Ser Ala Trp Arg Glu Gly
50 55 60
Gln Leu Thr Gln Leu Leu Gln Ala Ser Trp Ala Leu Ile Leu His Arg
65 70 75 80
Tyr Thr Gly Ser Glu Asp Ile Cys Phe Gly Tyr His Gln Ile Gly Asn
85 90 95
Val Ser Gln Asp Leu Leu Gln Ser Leu Glu Ala Val Asp Pro Ala Leu
100 105 110
Cys Lys Val Ser Val Lys Glu Gly Ile Ser Leu Lys Met Phe Phe Asp
115 120 125
Gln Phe Lys Thr His Asn Ser Pro Asp Ser Pro Leu Glu Ile Asp Arg
130 135 140
Ser Ser Arg Lys Ala Ser Glu Asn Ala Arg Leu Tyr Asn Thr Ile Leu
145 150 155 160
Met Ile Gln Ile Cys His Asp Ser Asn Gly Thr Ser Pro Ala Ile Pro
165 170 175
Leu Pro Ser Ser Leu Pro Ile Ala Leu Pro Gln Glu Val Ser Thr Glu
180 185 190
Arg Leu Val Leu Tyr Leu Pro Val Gln Pro Ser Glu Thr Tyr Leu Gln
195 200 205
Ser Arg Val Arg Leu His Val Lys Val Leu Gln Asp Glu Val Asn Ile
210 215 220
Phe Phe Glu Trp Trp Asn Asn Asp Met Pro Thr Ala Gln Met Lys Ser
225 230 235 240
Ile Ala Gly Ala Phe Gly His Ile Leu Thr Asp Leu Leu Ala Ala Asn
245 250 255
Asp Thr Ala Val Asp Asp Leu Asp Ile Phe Pro Glu Asn Asp Trp Ser
260 265 270
Arg Val Cys Ser Phe Asn Ser Val Leu Pro Lys Lys His Glu Arg Cys
275 280 285
Ile His Glu Met Ile Tyr Asp Arg Thr Leu Leu Gln Pro Glu Asn Glu
290 295 300
Ala Val Cys Ser Trp Asp Gly Ser Leu Thr Tyr Lys Glu Leu Asp Leu
305 310 315 320
Leu Ser Ser Lys Val Ala Tyr Asp Leu Gln Gln Arg Gly Val Gly Pro
325 330 335
Glu Val Cys Val Ala Leu Cys Phe Glu Lys Ser Val Ser Ala Ala Gly
340 345 350
Gln Met Ile Glu Leu Pro Ala Tyr Arg His Phe Ile Ile
355 360 365

<210> 30599
<211> 125
<212> PRT
<213> A.fumigatus

<400> 30599
Gly Arg Ser Thr Asn Leu Thr Val Leu Leu Leu Thr Ala Gly Asp Ala
1 5 10 15

```
Ile Asn Ala Thr Gln Trp Asp Ala Ala Leu Ala Lys Val Asn Asp Leu
            20                  25                  30
Ile Ala Gln Thr Ser Leu Thr Glu Lys Ala Ser Ile Val Thr Gly Thr
        35                  40                  45
Val Gly Phe Gly Glu Leu Cys Leu Tyr Asp Gly Pro Gln Gly Leu His
    50                  55                  60
Phe Ala Asp Leu Arg Ser Val Phe Pro Ser Glu Leu Ala Ala Ala Ala
65                  70                  75                  80
Pro Trp Asp Arg Cys Tyr Leu Asp Gly Asp Gly Glu Arg Trp Glu Pro
                85                  90                  95
Ser Phe Val Ala Lys Val Pro Met Leu Cys Leu Asp Glu Ser Thr Tyr
            100                 105                 110
Ser Trp Lys Ile Gly Arg Gly Ala Asn Arg Gly Ser Ile
        115                 120                 125
```

<210> 30600
<211> 166
<212> PRT
<213> A.fumigatus

```
<400> 30600
Ala Gly Leu Pro Arg Val Arg Tyr Val Arg Leu Phe Cys Asp Ala Phe
1               5                   10                  15
Trp Thr Val Arg His Gln Arg Arg Ser Arg Pro Lys Tyr Ala Arg Leu
            20                  25                  30
Ser Ile Gly Gly Cys Phe Gln Pro Phe Ile Leu Pro Met Trp Phe Pro
        35                  40                  45
Gly Ile Arg Asn Gly Thr Ile Pro Glu Trp Arg Leu Asn Glu Met Ile
    50                  55                  60
Arg Gln Ile Leu Thr Pro Tyr Tyr Tyr Ser Ser Gln Asp His Glu Tyr
65                  70                  75                  80
Pro Thr Ile Asp Pro Ser Ser Tyr Ala Val Thr Ala Ala Thr Tyr Gly
                85                  90                  95
Ile Leu Pro Ala Gly Glu Val Thr Pro Ala Gly Arg Asp Val Arg Gly
            100                 105                 110
Asn His Ser Leu Leu Ile Arg Lys Ile Gly Ser Ala Gly Thr Val Leu
        115                 120                 125
Leu Lys Asn Lys Asp Lys Thr Leu Pro Ile Arg Pro Ala Trp Val Ile
    130                 135                 140
Gly Val Phe Gly Asn Asp Ala Pro Asp Ile Asn Gly Gly Leu Leu Pro
145                 150                 155                 160
Glu Gln Gln Leu Arg Ala
                165
```

<210> 30601
<211> 65
<212> PRT
<213> A.fumigatus

```
<400> 30601
Cys Cys Leu Tyr Leu Ser Gln Asn Cys His Tyr His Thr Leu Gly Trp
1               5                   10                  15
Cys Lys Tyr Asn Val Leu Ala Asp Asn Glu Asn Val Thr Ala Ile Leu
            20                  25                  30
Ala Ala His Tyr Ser Arg Gln Glu Ser Arg Asn Ser Ile Thr Asp Asn
        35                  40                  45
```

```
Pro Ala Leu Ile Thr Leu Gly Phe Tyr Lys Asn Gln Pro Ile Gly Ser
    50                  55                  60
Arg
65

<210> 30602
<211> 74
<212> PRT
<213> A.fumigatus

<400> 30602
Asp Val Glu Leu Thr Glu Ala Leu Ser Ser Pro Ser Ala Gly Ser Leu
1               5                   10                  15
Gly Arg Ser Pro Leu Val Leu Gly Gly Gly Arg Val Thr Gly Lys Asp
            20                  25                  30
Ser Ser Leu Ile Leu Leu Ser Gly Val Ala Met Gln Glu Ser Ile Arg
        35                  40                  45
Ser Ala Gln Ala Val Gly Met Gln Ala Cys Ala Lys His Tyr Ile Trp
    50                  55                  60
Gln Arg Thr Ile Asn Pro Ser Tyr Glu Ser
65                  70

<210> 30603
<211> 82
<212> PRT
<213> A.fumigatus

<400> 30603
Leu Gln Gln Ser Gln Ala Asp Val Phe Leu Arg Lys Phe Ser Leu Leu
1               5                   10                  15
Lys Lys Asn Met Arg Asp Glu Leu Asp Phe Gln Gly Tyr Val Met Ser
            20                  25                  30
Asp Phe Phe Ala Thr His Ser Gly Leu Phe Ala Ile Asn Ala Gly Leu
        35                  40                  45
Asp Leu Asn Met Pro Gly Tyr Leu Ser Glu Ala Ala Phe Asn His Ser
    50                  55                  60
Tyr Phe Gln Cys Gly Phe Leu Val Phe Val Met Glu Leu Phe Leu Asn
65                  70                  75                  80
Gly Gly


<210> 30604
<211> 114
<212> PRT
<213> A.fumigatus

<400> 30604
Lys His Ala Gln Gly Met Arg Ala Leu Ala Trp Phe Tyr Leu Thr Asp
1               5                   10                  15
Lys Lys Leu Ile Val Glu Gly Asn Phe Asn Ser Ile Tyr Pro Arg Pro
            20                  25                  30
Asp Ile Cys Leu Val Phe Pro Gln Asp Pro Ser Pro Gly Trp Asn Cys
        35                  40                  45
Trp Gln Ser Leu Glu Ala Asp Trp Asn Leu Ile Leu Val Val Asn Asn
    50                  55                  60
Val Ala Ser Ile Cys Arg Arg Thr Val Ile Ile Thr His Ser Asp Gly
```

```
65                  70                  75                  80
Val Asn Ile Met Ser Trp Gln Ile Met Arg Thr Ser Leu Leu Phe Ser
                85                  90                  95
Gln Arg Ile Thr Leu Gly Lys Ser Leu Glu Ile Pro Ser Pro Thr Thr
            100                 105                 110
Gln Pro
```

<210> 30605
<211> 285
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (166),(170),(174)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30605

```
Arg Ser Val Asp Lys Val His Thr Pro Phe Phe Lys Ala Lys Pro Pro
1               5                   10                  15
Ser Thr Val Cys Thr Cys Val Ala Trp Leu Ser Pro Thr Asp Ile Ala
            20                  25                  30
Val Gly Cys Ala Asn Gly Phe Val Ala Ile Trp Ser Ile Thr Ala Ser
        35                  40                  45
Glu Glu Thr Pro Thr Ala Ser Leu Pro Tyr Phe Tyr Glu Pro Ile His
    50                  55                  60
Arg Thr Tyr Ile Leu Asn Leu Ala Ser Ala Tyr Pro Thr His Pro His
65                  70                  75                  80
Leu Leu Cys Thr Thr Ser Met Asp Gly Glu Thr Arg Leu Thr Ser Ile
                85                  90                  95
Ala Asp Tyr Gln Lys Asp Thr Val Glu Thr Thr Arg Met Arg Met Ala
            100                 105                 110
Ser Pro His Ala Ala Tyr Ser Pro Leu Leu His Ala Phe Ile Ser Ser
        115                 120                 125
Asp Glu Asn Asp Phe Ala Arg Leu Leu Ala Val Arg Arg Phe Phe Thr
    130                 135                 140
Thr Thr Ala Met Ala Arg Leu Pro Ser Thr Val Ser Ala Leu Ala Pro
145                 150                 155                 160
Cys Ser Phe Trp His Xaa Ser Val Leu Xaa Gly Cys Ala Xaa Gly Glu
                165                 170                 175
Val Ile Ala Thr Asn Pro Ile Arg Arg Leu Val His Pro Lys Glu Lys
            180                 185                 190
Gln Trp Gln Gln Thr Trp Phe Thr His Glu Trp Ala Arg Gly Gln Asp
        195                 200                 205
Ala Asp Ser Ala Gly Thr Ser Arg Phe Ile Asp Gly Tyr Arg Ala Glu
    210                 215                 220
Ser Phe Ser Leu Leu Arg Asn Met Val Gly Asp Arg Arg Met Val Asn
225                 230                 235                 240
Gly Thr Met Met Ile Thr Ile Phe Asp Glu Pro Arg His Val Thr Ala
                245                 250                 255
Leu Thr Trp Asn Pro Asn Gln Leu Cys Ala Gly Trp Ala Ser Ala Gly
            260                 265                 270
Leu Gly Cys Gly Leu Ile Arg Val Glu Asp Leu Ala Ile
        275                 280                 285
```

<210> 30606
<211> 76
<212> PRT
<213> A.fumigatus

<400> 30606
Gly Leu Ile Ser Phe His Gly Gly Leu Ile Asp Ala Gly Gly Ala Leu
1 5 10 15
Met Leu Tyr Ser Val Thr His Val Glu Val Met Gly Met Cys Ala Leu
20 25 30
Cys Gln Arg Ala Met Arg Thr Met His Ala Asn Glu Asn Val Asp Lys
35 40 45
Ile Leu Phe His Val Leu Leu Cys Leu Ala Leu Ser Leu Thr Leu Met
50 55 60
Gln Ala Pro Glu Gln Ile Arg Thr Ala Ala Ser Arg
65 70 75

<210> 30607
<211> 223
<212> PRT
<213> A.fumigatus

<400> 30607
Pro Gly Thr Ser Ile Leu His Pro Arg Trp Thr Leu Lys Gly His Glu
1 5 10 15
Ser Arg Asn Glu Ser Pro Trp Glu Phe Phe Thr Thr Ser Ala Val Thr
20 25 30
Val Phe Ser Tyr Ser Leu Pro Thr Val Met Ser Asp Leu Pro Ile Pro
35 40 45
Ser Trp Leu Asp Val Ser Thr Ala Ser Phe Leu Ser Thr Pro Glu Asp
50 55 60
Thr Thr Asp Thr Leu Asp Pro Arg Ser Leu Phe Pro Asp Glu Gln Val
65 70 75 80
Ala Asn Asn Ala Pro Ser Tyr Asp Asn Gly Ser Ser Gly Ile Leu Cys
85 90 95
Asn Ala Ser Asn Ala Leu Phe Ala Asp Pro Leu Leu Tyr Glu Asp Ser
100 105 110
Phe Leu Pro Ser Glu Ile Asp Arg Gln Pro Pro Val Gln Phe Gln Ala
115 120 125
Gln Pro Thr Asn Gln Met Pro Pro Ser Leu Val Ala Ser Ser Pro Gly
130 135 140
Phe Arg Thr Val Ser Gly Gly Arg Gly Phe Arg Arg Glu Met Leu Gln
145 150 155 160
Leu Glu Ser Ala Pro Pro Arg Thr Ile Thr Pro Ser Asp Pro Tyr Leu
165 170 175
Pro Thr Lys Pro Ala Ala Ala Glu Gln Cys Pro Ala Ser Asn His Thr
180 185 190
Lys Ala Thr Val Lys Ser Asn Gly Ser Thr His Ser Ala Pro Arg Thr
195 200 205
Arg Lys Arg His Ala Ser Ile Arg Ser Gln Leu Ser His Gly Asn
210 215 220

<210> 30608
<211> 180
<212> PRT
<213> A.fumigatus

<400> 30608
Ser Ala Pro Cys Leu Thr Ser Ala Thr Ala Ile Ser Lys Cys Pro Ala
1 5 10 15
Ala Ala Ala Leu Phe Asn Gly Ala Gln Pro Val Arg Ser Gly Val Val
20 25 30
Thr Ser Ala Pro Leu Ala Arg Ser Ser Ser Thr Thr Ala Arg Trp Pro
35 40 45
Ser Asp Ala Ala Ala Leu Arg Gly Val His Leu Phe Ala Asp Ala Cys
50 55 60
Glu Val Ser Ala Pro Trp Ser Arg Arg Met Arg Thr Thr Ser Val Trp
65 70 75 80
Pro Ser Phe Ala Ala Gln Tyr Asn Gly Val Ala Pro Thr Ser Pro Met
85 90 95
Ile Ala Leu Thr Ser Ala Pro Arg Leu Met Arg Val Ser Thr Ile Ser
100 105 110
Ala Trp Pro Ser Glu Ala Ala Asp Ala Ser Gly Val His Pro Leu Val
115 120 125
Val Gly Lys Leu Lys Ser Ala Pro Trp Ser Ser Lys Tyr Phe Thr Ile
130 135 140
Trp Arg Trp Pro Leu Phe Ala Ala Thr Phe Ser Gly Val His Cys Phe
145 150 155 160
Gly Cys Val Val Ser Asp Met Phe Thr Pro Cys Ser Thr Ser Thr Phe
165 170 175
Thr Glu Pro Ser
180

<210> 30609
<211> 640
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (6)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30609
Lys Gln Ser Leu Leu Xaa Val Leu Asp Met Glu Ile Lys Asp Leu Glu
1 5 10 15
Ala Ala Val Gln Ser Leu Lys Lys Leu Ser Ile Val Ser Ser Gly Glu
20 25 30
Ile Ala Glu Arg Gln Asn Met Ile Val Ala Met Glu Gly Leu Ile Ser
35 40 45
Ser Ala Lys Ser Phe Asn Thr Phe Met Ser Val Ala Pro Ser Ala Pro
50 55 60
Thr Val Asn Gln Glu Asp Gly His Gly Ser Ala Pro Leu Pro Ser Tyr
65 70 75 80
Ala Gln Ala Met Ala Pro Asp Asp Gly Ala Glu Ser Glu Asp Ser Ala
85 90 95
Pro Trp Pro Ser Pro Phe Asn Val Ala Ala Arg Glu Gly Asn Leu Glu
100 105 110
Glu Ile Lys Arg Leu Val Ala Ala Gly Glu Asp Ile Leu Ala Thr Gly
115 120 125
Glu Ile Gly Gln Ser Pro Ala Tyr Ser Ala Ala Val Ser Gly Asn Thr
130 135 140

```
Glu Ile Leu Glu Tyr Leu Ile Glu His Gly Ala Asp Tyr Thr Ser Gly
145                 150                 155                 160
Asn Glu Asn Gly Phe Thr Pro Leu Asn Ala Ala Ala Thr Phe Gly His
                165                 170                 175
Pro Asp Ala Val Leu Ala Leu Leu His His Gly Ala Asp Pro Asn Val
            180                 185                 190
Pro Ser Val Asp Gly Gln Ser Pro Ile Tyr Ser Ala Ala Lys Leu Gly
        195                 200                 205
Gln Leu Gly Ser Val Lys Val Leu Val Glu His Gly Val Asn Ile Ser
    210                 215                 220
Asp Thr Thr His Pro Lys Gln Trp Thr Pro Leu Asn Val Ala Ala Asn
225                 230                 235                 240
Ser Gly His Leu His Ile Val Lys Tyr Leu Leu Asp Gln Gly Ala Asp
                245                 250                 255
Phe Asn Leu Pro Thr Thr Ser Gly Trp Thr Pro Leu Ala Ser Ala Ala
            260                 265                 270
Ser Glu Gly His Ala Glu Ile Val Glu Thr Leu Ile Lys Arg Gly Ala
        275                 280                 285
Asp Val Asn Ala Ile Ile Gly Glu Val Gly Ala Thr Pro Leu Tyr Cys
    290                 295                 300
Ala Ala Lys Asp Gly His Thr Asp Val Val Arg Ile Leu Leu Asp His
305                 310                 315                 320
Gly Ala Asp Thr Ser Gln Ala Ser Ala Asn Lys Trp Thr Pro Leu Asn
                325                 330                 335
Ala Ala Ala Ser Glu Gly His Leu Ala Val Val Glu Leu Leu Leu Ala
            340                 345                 350
Lys Gly Ala Asp Val Thr Thr Pro Asp Arg Thr Gly Trp Ala Pro Leu
        355                 360                 365
Asn Ser Ala Ala Ala Ala Gly His Phe Glu Ile Ala Val Ala Leu Val
    370                 375                 380
Lys His Gly Ala Asp His Ala Val Ala Asp Ser Arg Gly His Thr Pro
385                 390                 395                 400
Leu Tyr Ser Ala Ala Leu His Gly His His Ala Ile Val Asp Leu Leu
                405                 410                 415
Leu Glu Ala Gly Ala Ser Ile Asn Val Thr Asn Lys Asp Lys Trp Thr
            420                 425                 430
Pro Leu His Ala Ala Ser Ala Arg Gly His Leu Gln Val Val Gln Ser
        435                 440                 445
Leu Ile Ala Cys Gly Ala Asn Ser Ala Thr Arg Asn Met Asp Gly Trp
    450                 455                 460
Ser Pro Leu Asn Ser Ala Ala Cys Asn Gly His Leu Glu Val Val Lys
465                 470                 475                 480
Leu Leu Leu Arg His Gly Ala Ala Val Asp Ser Arg Ser Asp Asp Gly
                485                 490                 495
Trp Ser Pro Leu Thr Ala Ala Ala Gly Asn Gly His Thr Ala Val Val
            500                 505                 510
Glu Ala Leu Leu Asp Arg Lys Thr Asp Ile Glu Thr Ser Asn Asp Ile
        515                 520                 525
Gly Trp Thr Ser Leu Gly Ile Ala Ala Arg Glu Gly Tyr Pro Glu Thr
    530                 535                 540
Val Lys Val Leu Leu Ala Arg Gly Ala Asp Lys Asn Ala Thr Asn Ile
545                 550                 555                 560
Asn Gly Trp Thr Ala Leu His Gly Ala Val Glu Lys Asp Gln Leu Glu
                565                 570                 575
Val Val Thr Leu Leu Leu Ala Gln Gly Leu Asp Ile Ser Ala Lys Ser
            580                 585                 590
```

```
Asn Thr Gly Trp Thr Pro Leu Asn Ile Ala Ala Ser Asn Gly Arg Ala
        595                 600                 605
Thr Ile Ala Gln Phe Leu Leu Ala Ser Gly Ala Asp Pro Asn Thr Pro
    610                 615                 620
Gln Asp Val Phe Thr Thr Gly Leu Glu Gly Pro Thr Arg Ser Leu Ser
625                 630                 635                 640

<210> 30610
<211> 78
<212> PRT
<213> A.fumigatus

<400> 30610
Ala Val Ile Gly Lys Tyr Ser Val Lys Arg Tyr Thr Tyr Leu Ser Ile
1               5                   10                  15
Tyr Arg Arg Gly Gly Pro Gln Lys Lys Asn Gly Ser Ser Asp Ser Pro
            20                  25                  30
Glu Tyr Asn Leu Glu Val Pro Ser Arg Asp Ala Ser Ala Thr Asn Lys
        35                  40                  45
Tyr Met Glu Lys Ser Lys Phe Gly Gly Phe Leu Ser Leu Asp Leu Glu
    50                  55                  60
Arg Met Asp Gly Ser Ile Trp Leu Lys Gln Ser Ile Lys Pro
65                  70                  75

<210> 30611
<211> 286
<212> PRT
<213> A.fumigatus

<400> 30611
Pro Asn His Gly Leu Ser Leu Met Arg Phe Leu Val Ser Gly Asn Ser
1               5                   10                  15
Trp Ser Arg Ser Gly Gln Leu Leu Ala Ser Gly Ser Asp Asp Leu His
            20                  25                  30
Leu Asn Ile Tyr Ser Tyr Gln Pro Glu Ser Ser Ser Ala Pro Phe Thr
        35                  40                  45
Leu Asn Thr Thr Val Tyr Thr Gly His Lys Ala Asn Ile Phe Ser Ala
    50                  55                  60
Lys Phe Met Pro His Ser Asn Asp Arg Thr Leu Val Thr Cys Ala Gly
65                  70                  75                  80
Asp Ser Gln Val Arg Val Phe Asp Ile Glu Tyr Ser Ala Gly Asn Ser
                85                  90                  95
Asn Val Ala Ala Thr Ser Ala Phe Ser Ala Ser Ala Arg Ser Arg Arg
            100                 105                 110
Phe Asn Asn Phe Phe Ser Asn Ala Arg Tyr Leu Asn Glu Arg Asn Thr
        115                 120                 125
Asn Cys Arg Val Tyr Arg Ser His Ala Asp Arg Val Lys Arg Ile Val
    130                 135                 140
Thr Glu Ser Ser Pro Tyr Leu Phe Leu Thr Cys Ser Glu Asp Gly Glu
145                 150                 155                 160
Val Arg Gln Trp Asp Leu Arg Gln Pro Ser Ser Ala Tyr Pro Gln Pro
                165                 170                 175
Arg Gly Gly Gln Gly Phe Met Ala Tyr Arg Pro Gly Leu Glu His Asp
            180                 185                 190
Asp Ser Asn Val Pro Pro Pro Leu Ile Ser Tyr Lys Arg Tyr His Leu
        195                 200                 205
```

```
Asp Leu Asn Thr Ile Ser Cys Ser Ser Ser Gln Pro His Tyr Ile Ala
    210                 215                 220
Leu Gly Gly Ala His Leu His Cys Phe Leu His Asp Arg Arg Met Leu
225                 230                 235                 240
Gly Arg Asp Leu Leu Ala Glu Lys Gly His Pro Gly Gly Leu Ser Asp
                245                 250                 255
Ser Gly Ser His His Asp Asp Glu Leu Met Gly Gln Ala Thr Arg Cys
            260                 265                 270
Val Arg Arg Phe Ala Pro Asp Gly Lys Arg Arg Met Arg Pro
        275                 280                 285
```

<210> 30612
<211> 370
<212> PRT
<213> A.fumigatus

<400> 30612

```
Arg Ala Val Val Thr Val Lys Lys Ser Gln Gly Asp Val Asn Ala Ala
1               5                   10                  15
Ala Asp Ile Leu Cys Glu Leu Gln Val Glu Thr Phe Gly Ser Met Thr
            20                  25                  30
Arg Arg Glu Lys Thr Glu Phe Ile Leu Glu Gln Val Ala Leu Cys Ile
        35                  40                  45
Glu Arg Gly Asp Trp Ser Gln Ala Ala Ile Leu Ser Arg Lys Ile Asn
    50                  55                  60
Lys Ile Tyr Phe Ala Arg Lys Pro Gln Lys Ser Ala Glu Glu Ile Glu
65                  70                  75                  80
Lys Leu Lys Lys Ala Ala Glu Glu Arg Glu Lys Thr Arg Ala Pro Asp
                85                  90                  95
Glu Pro Pro Met Glu Val Asp Glu Asp Val Thr Asp Leu Lys Leu Arg
            100                 105                 110
Tyr Tyr Glu Gln Gln Ile Ile Leu Ala Asn His Asp Tyr Lys Tyr Leu
        115                 120                 125
Ala Val Cys Lys His Tyr Arg Glu Val Leu Asp Thr Asp Ser Val Gln
    130                 135                 140
Asn Ile Pro Glu Gln Leu Arg Ala Val Ser Arg Tyr Leu Pro Cys Leu
145                 150                 155                 160
Leu Met Trp Thr Leu Thr Ile Ile Thr Lys Val Leu Ala Arg Ile Val
                165                 170                 175
Tyr Tyr Ile Val Leu Ser Pro Tyr Asp Asn Glu Gln Ser Asp Leu Leu
            180                 185                 190
His Arg Ile Gln Gln Asp Ser Arg Leu Ser Leu Val Pro Val Glu Ala
        195                 200                 205
Arg Leu Val Lys Leu Phe Thr Val Pro Glu Leu Met Arg Trp Pro Met
    210                 215                 220
Val Ala Glu Gln Phe Gly Pro His Leu Cys Asn Thr Asp Val Phe Asn
225                 230                 235                 240
Ala Gln Pro Ser Gln Ser Val Glu Asp Gln Ala His Lys Arg Trp Gln
                245                 250                 255
Asp Leu Arg Lys Arg Val Ile Glu His Asn Val Arg Val Val Ala Lys
            260                 265                 270
Tyr Tyr Thr Arg Ile Gln Met Gly Arg Leu Thr Glu Leu Leu Asp Leu
        275                 280                 285
Ala Glu Glu Glu Thr Glu Lys Tyr Ile Ser Glu Leu Val Thr Ser Lys
    290                 295                 300
Thr Ile Tyr Ala Lys Ile Asp Arg Pro Ala Arg Leu Val Asn Phe Ala
```

```
305                 310                 315                 320
Lys Pro Arg Asp Ala Asp Asp Val Leu Asn Glu Trp Ser Ser Asp Met
                325                 330                 335
Lys Ser Leu Leu Gly Leu Leu Glu Arg Ile Asp His Leu Ile Thr Lys
            340                 345                 350
Glu Glu Met Met Ala Arg Ile Leu Pro Ser Arg Gly Glu Ile Gly Lys
        355                 360                 365
Ala Arg
    370
```

<210> 30613
<211> 293
<212> PRT
<213> A.fumigatus

<400> 30613

```
His Ile Leu Leu Ile Met Ala Pro Arg Gln Pro Leu Lys Leu Leu Met
1               5                   10                  15
Leu His Gly Tyr Thr Gln Ser Gly Thr Leu Phe His Ala Lys Ser Arg
            20                  25                  30
Ala Leu Ile Lys His Ile Thr Lys Ala Phe Pro Leu His Glu Val Ser
        35                  40                  45
Ala Ile Tyr Pro Thr Gly Pro Thr Arg Leu Asn Pro Ala Asp Ile Pro
    50                  55                  60
Gly Tyr Glu Pro Pro Ala Glu Gly Ser Thr Val Glu Gln Gln Gln Glu
65                  70                  75                  80
Gln Ile Glu Ala Tyr Gly Trp Tyr Arg Arg Ser Asn Thr Ala Asp Pro
                85                  90                  95
Pro Leu Tyr Ile Gly Leu Glu Gly Gly Leu Asp Ala Ile Ala Lys Val
            100                 105                 110
Leu Arg Glu Glu Arg Pro Phe Asp Gly Val Ile Gly Phe Ser Gln Gly
        115                 120                 125
Ala Ala Met Ala Ala Met Val Ala Ser Leu Leu Glu Pro Gly Arg Lys
    130                 135                 140
Glu Ala Phe Glu His Phe Ala Asp Pro Lys Val Ala Ser Glu Gly Phe
145                 150                 155                 160
Glu Val Lys Glu Pro Val Ala Gly Val Ala Phe Pro Ala Ser Phe Glu
                165                 170                 175
Glu Ala Gly His Pro Pro Leu Lys Phe Ala Leu Cys Tyr Ser Gly Phe
            180                 185                 190
Arg Ser Pro Gly Pro Arg Tyr Arg Pro Phe Tyr Glu Asn Pro Pro Ile
        195                 200                 205
Gln Thr Pro Ile Leu His Val Leu Gly Ser Leu Asp Ala Val Val Asp
    210                 215                 220
Asp Thr Arg Ser Arg Ala Leu Val Glu Ala Cys Ala Gly Asp Pro Glu
225                 230                 235                 240
Lys Glu Gly Lys Val Val Trp His Pro Gly Gly His Phe Leu Pro Ser
                245                 250                 255
Gln Arg Pro Tyr Leu Asp Ala Ala Val Arg Phe Ile Lys Glu Gln Leu
            260                 265                 270
Glu Gly Lys Gln Ala Lys Ala Asp Ala Lys Glu Asp Asp Val Arg Asp
        275                 280                 285
Met Asp Leu Pro Phe
    290
```

<210> 30614

<211> 176
<212> PRT
<213> A.fumigatus

<400> 30614
Glu Val Leu Pro Leu Arg Gln Gly Leu Leu Gln Leu Ser Gly Val Asn
1 5 10 15
Ala Thr Ala Lys Met Ser Lys Ser Pro Thr Glu His Val Glu Leu Ser
20 25 30
Pro Thr Lys Leu Glu Asn Ala Ser Asp Ala Leu Tyr Glu Ala Tyr Ala
35 40 45
Ser Lys Gly Pro Glu Trp His Gln Gln Met Thr Arg Arg Leu Leu Arg
50 55 60
Lys Val Asp Leu His Leu Leu Pro Phe Leu Val Val Met Tyr Leu Leu
65 70 75 80
Asn Phe Leu Asp Arg Lys Tyr Ala Ser Val Ser Gln His Lys Ile Lys
85 90 95
Leu Thr Ser Leu Lys Gln Ser Leu Thr Ser Ala Thr Trp Asp Ile Gly
100 105 110
Lys Gly Leu Gly Asp Asp Arg Asp Arg Leu Gln Pro Gly Asp Glu His
115 120 125
Ser Val Arg Arg Ile Pro Ala His Ala Ala Pro Val Gln Ser Ala Ala
130 135 140
Asp Ala Arg Glu Ala Val Val Ala Ala Gly Trp Arg Asn Gly Asp Leu
145 150 155 160
Val Cys Ser Leu Met Val Leu Ser Asn Arg Ser Asp Gln Pro Gly Ala
165 170 175

<210> 30615
<211> 145
<212> PRT
<213> A.fumigatus

<400> 30615
Leu Ser Ser Val Met Arg Ile Asn Val Phe Thr Ile Leu Ser Leu Leu
1 5 10 15
Phe Ala Ser Asn Leu Ala Met Ala Thr Thr Arg Tyr Thr Glu Pro Ile
20 25 30
Pro Glu Gly Ile Pro Val Leu Glu Thr Arg Gln Gln Leu Asn Asp Met
35 40 45
Ala Asp Gln Tyr Pro Thr Gly Thr Leu Asp Asp Arg Asn Gly Gly Tyr
50 55 60
Tyr Leu Leu Asp His Asp Gly Ala Val Leu Ala Val Thr Ser Asp Ala
65 70 75 80
Leu Cys Glu Glu Leu Asp Ala Ser Met Glu Gln Ala Arg Arg Phe His
85 90 95
Ala Gly Asn Leu Asp Asp Glu Ala Asp Val Val Pro Arg Gly Asp Asn
100 105 110
Ala Ala Ala Ser Cys Ser His Pro Arg Cys His Thr His Ala Leu Cys
115 120 125
Arg Thr Tyr Ser Asp Cys Tyr Val Cys Ser Ser Ser Lys His Trp Cys
130 135 140
Phe
145

<210> 30616

<211> 129
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (99),(102)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30616
Ser Asn Leu Ser Gln Ala Arg Leu Gly Thr Leu Glu Lys Asp Leu Gly
1 5 10 15
Met Thr Gly Thr Asp Phe Asn Leu Ala Thr Ser Ile Leu Phe Val Gly
20 25 30
Tyr Leu Leu Met Gln Leu Pro Ser Asn Leu Leu Leu Thr Arg Val Lys
35 40 45
Pro Ser Trp Leu Leu Gly Gly Ala Met Ala Ile Trp Tyr Val Pro Ser
50 55 60
Trp Phe Cys Arg Ile Gly Leu Thr Ser Gln Gly His Asn Ile Arg Ser
65 70 75 80
Ser Cys Gly Asn Asp Leu Val His Arg Leu Gly Ser Gly Glu Ile Leu
85 90 95
Pro Gly Xaa Cys Gly Xaa Ala Phe Leu Pro Gly Gly Asp His Val Asp
100 105 110
Val Arg Ile His Leu Lys Pro Arg Lys Arg Lys Leu Pro Val Leu Met
115 120 125
Leu

<210> 30617
<211> 153
<212> PRT
<213> A.fumigatus

<400> 30617
Glu Ser Thr Ser Leu Pro Ser Cys Pro Phe Ser Ser Pro Ala Ile Ser
1 5 10 15
Pro Trp Leu Gln Pro Asp Thr Pro Ser Arg Ser Pro Arg Glu Ser Pro
20 25 30
Ser Ser Arg Pro Ala Ser Asn Ser Thr Thr Trp Gln Thr Asn Ile Pro
35 40 45
Arg Gly Leu Trp Thr Ile Glu Thr Gly Ala Thr Thr Cys Ser Thr Thr
50 55 60
Thr Ala Pro Ser Trp Pro Leu Arg Leu Met Arg Tyr Ala Arg Asn Trp
65 70 75 80
Thr Pro Arg Trp Asn Lys Arg Gly Asp Phe Met Pro Gly Thr Trp Thr
85 90 95
Thr Arg Pro Met Leu Phe Leu Gly Val Ile Met Arg Leu Arg Val Ala
100 105 110
Leu Thr Arg Ala Val Ile Pro Met Leu Cys Val Ala His Ile Val Thr
115 120 125
Ala Met Phe Val Arg Arg Ala Asn Ile Gly Val Phe Asp Tyr Gly Leu
130 135 140
Val Leu Pro Leu Gly Glu Val Asp Val
145 150

<210> 30618
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30618
Thr Arg Leu Ala Gln Ala Gly Tyr Glu Val Ala Ile Val Glu Ala Gly
1 5 10 15
Gly Trp Tyr Glu Asp Ser Glu Pro Ile Ile Ser Ser Thr Pro Ala Phe
20 25 30
Gly Phe Ala Asn Asn Ala Ala Asn Asp Trp Gly Phe Met Val Glu Pro
35 40 45
Gln Pro Gly Met Gly Gly Arg Val Phe Gly Tyr Pro Arg Gly Lys Cys
50 55 60
Val Gly Gly Ser Ser Ala Arg Lys
65 70

<210> 30619
<211> 163
<212> PRT
<213> A.fumigatus

<400> 30619
Thr Val Thr Gly Phe Ile Gln Lys Cys His Tyr Gln Thr Ser Tyr Thr
1 5 10 15
Tyr Ile Lys Ala Arg Leu Val Gly Phe Gly Arg Pro Glu Ser Arg Leu
20 25 30
Glu Tyr Arg Thr Leu His Ser Thr Ser Phe Gln Ser Leu His Phe Ser
35 40 45
Ile Leu Arg Asn Lys Arg Lys Thr Ser Glu Ile Ser Ile Met Gly Ser
50 55 60
Leu Ala Pro Thr Ile Val Pro Pro Gly Gly Leu Val Leu Val Thr Gly
65 70 75 80
Val Asn Gly Phe Leu Ala Ser His Ile Gly Leu Asn Leu Leu Glu Arg
85 90 95
Gly Tyr Lys Val Arg Gly Thr Val Arg Ser Gln Glu Lys Ala Asp Trp
100 105 110
Ile Thr Glu Ala Ile Ala Lys Arg Tyr Pro Glu Pro Ser Phe Gln Thr
115 120 125
Ala Leu Val Pro Asn Ile Ser Ala Ala Val Gly Leu Gln Arg Cys His
130 135 140
Pro Arg Arg Gln Trp Asp Arg Pro Arg Gly Gln Arg Thr Trp Ser Phe
145 150 155 160
Gly Glu Arg

<210> 30620
<211> 64
<212> PRT
<213> A.fumigatus

<400> 30620
Glu Glu Thr Pro Ser Gly His Asn Pro Lys Val Asp Ile His Gln Tyr
1 5 10 15
Lys Trp His Val Met Leu Gly Ser Gln Arg Ser Ala Val Gly Ser Pro
20 25 30

```
Ala Arg Asn Val Lys Arg Ile Ser Gly Glu Ala Gln Ser Lys Asp Met
        35                  40                  45
Gly Lys Gly Ala Leu Leu Gly Ala Gly Ala Phe Ser Gly Leu Thr Asn
    50                  55                  60
```

<210> 30621
<211> 121
<212> PRT
<213> A.fumigatus

<400> 30621

```
Arg Pro Trp Phe Phe Arg Pro Ala Lys Pro Arg Pro Ser Pro Pro Lys
1               5                   10                  15
Thr Thr Phe Phe Gln Gly Lys Ala Pro Gly Pro Asn Pro Gly Tyr Ile
            20                  25                  30
Pro Lys Val Ser Ser Asn Pro Asp Phe Pro Gln Pro Asn Thr Met Arg
        35                  40                  45
Val Ser Ser Pro Ile Pro Leu Arg Pro Pro Ile Pro Asn Thr Tyr Leu
    50                  55                  60
Thr Pro Val Gln Ile Phe Asp Pro Gln Ser Ala Val Leu Thr Asn Ile
65                  70                  75                  80
Glu Val Leu Ala Tyr Ile Thr Ala Asn Pro Pro Arg Arg Pro Pro Asn
                85                  90                  95
Pro Pro Pro Asn Ser Arg Asn Trp Val Pro Ser Pro Asp Leu Arg Asp
            100                 105                 110
His Asn Thr Val Val Arg Glu Val Gly
        115                 120
```

<210> 30622
<211> 424
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (16)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30622

```
Lys Lys Tyr Gly Leu Val Lys Asp Tyr His Pro Tyr Arg Lys Gly Xaa
1               5                   10                  15
Glu Glu Ala Leu Gln Lys Tyr Ser Gln Arg Val Leu Phe Ala Ala Gly
            20                  25                  30
Lys Glu Cys Phe Pro Asn Met Thr Val Asp Ala Gly Cys Val Thr Val
        35                  40                  45
Pro Gln Ser Ser Leu Pro Pro Asp Ala Tyr Gly Trp Lys Thr Asp Thr
    50                  55                  60
His Pro Glu Gly His Leu Thr Arg Pro Arg Trp Leu Lys Pro Gly Thr
65                  70                  75                  80
Val Ile Gly Gln Ala Ala Asp Leu Lys Leu Ile Tyr Ala Glu Val Leu
                85                  90                  95
Arg Phe Val Glu Glu Asn Arg His Asn Arg Ser Asp Tyr Leu Ala Leu
            100                 105                 110
Thr Gln Met Tyr Gly Arg Gln Glu Tyr Val Arg Glu Leu Glu Arg Arg
        115                 120                 125
Arg Ser Ser Asn Trp Phe Asn Glu Trp Val Tyr Arg Leu Ile Gly Ile
```

```
    130                 135                 140
Ser Glu Ala Ala Asn Ile Thr Gly Val Asn Pro His Leu Glu Thr Gly
145                 150                 155                 160
His Arg Tyr Glu Tyr Gly Ile Gly Val Asp Phe Glu Ser Arg Val Phe
                165                 170                 175
Phe Asn Thr His Lys Ser Lys Lys Asp Val Glu Trp Leu Gln Tyr His
            180                 185                 190
Asp Ile Pro Arg Thr Ser Ser Val Gln Met Lys His Gly Ile Pro Arg
        195                 200                 205
Glu Arg Arg Leu Leu Leu Pro Pro Asp Leu Ala Ser Pro Arg Leu Arg
    210                 215                 220
Asn Pro Phe Val Gln Pro Leu Phe Gly Lys Asp Glu Gln Val Lys Pro
225                 230                 235                 240
Glu Phe Asn Ser Thr Leu Asp Ala Leu Pro Asn Pro Arg Asn His Thr
                245                 250                 255
Trp Arg Asn Met Pro Leu Leu Thr Asn Ile His Ser Ala Ser Val Pro
            260                 265                 270
Ala Leu Ile His Leu Asp Glu Glu Lys Pro Ala Glu Asp Asp Lys Ala
        275                 280                 285
Trp Pro Val Lys His Pro Glu Arg Leu Ile Arg Asp Thr Trp Trp Tyr
    290                 295                 300
Asn Met Trp Tyr Gln Pro Trp Ala Arg Ala Leu Leu Arg Lys Tyr Met
305                 310                 315                 320
Arg Ser Pro Thr Gly Phe Asp Ala Ala Gln Ser Ala Leu Leu Gly Gly
                325                 330                 335
Gln Asp Trp Trp Asp Leu Arg Gly Gly Lys Gly Gly Val Trp Thr Asp
            340                 345                 350
Lys Gly Glu Trp Leu Asp Tyr Ala Glu Val Cys Thr Gly Phe Glu Gly
        355                 360                 365
Glu Val Phe Asp Asp Asp Leu Gly Gln Trp Gly His Glu Gly Gly Asp
    370                 375                 380
Pro Asp Glu Pro Val Tyr Asn Gln Phe Gly Lys Leu Val Lys Gly Lys
385                 390                 395                 400
Gly Glu Ser Glu Asp Lys Pro Gly Gln Gly Lys Asp Asp Ser Ala Asp
                405                 410                 415
Arg Gln Pro Gly Arg Pro Gln Arg
            420
```

<210> 30623
<211> 240
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (33)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 30623
Gly Pro Val Arg Leu Arg Pro Phe Gly Lys Ala Pro Arg Ile Gln Val
1               5                   10                  15
Met Gly Arg Leu Leu Asn Leu Phe Phe Arg Glu Gly Val Arg Pro Leu
            20                  25                  30
Xaa Leu Leu Lys Asn Thr Trp Ser Cys Gln Gly Met Glu Ala Gln Pro
        35                  40                  45
Ser Lys Trp Leu Thr Thr Ser Lys Ser Glu Thr Cys Leu Asp Gln Arg
```

```
    50                  55                  60
Thr Thr Leu Phe Gly Ser Arg Tyr Ala Asp His Asp Glu Phe Thr Pro
65                  70                  75                  80
Gln Phe Val Gly Gly Thr Val Tyr Gln Ala Phe Leu Ser Ala Leu Ser
                85                  90                  95
Tyr His Arg Trp His Ser Pro Val Ser Gly Lys Val Val Lys Ala Ser
            100                 105                 110
Val Val Glu Gly Thr Tyr Tyr Ser Asp Pro Leu Phe Glu Gly Val Gly
        115                 120                 125
Asp Pro Ser Pro His Gln Ile Asp Leu Ser Gly Gln Val Thr Ala Gln
    130                 135                 140
Glu Tyr Asn Ser Ala Thr Ala Thr Arg Ala Leu Ile Phe Ile Glu Ala
145                 150                 155                 160
Asp His Pro Ala Ile Gly Leu Met Cys Phe Met Gly Ile Gly Met Cys
                165                 170                 175
Glu Val Ser Thr Cys Glu Ile Thr Val Lys Glu Gly Gln His Leu Lys
            180                 185                 190
Lys Gly Asp Gln Leu Gly Met Phe His Phe Gly Gly Ser Thr His Cys
        195                 200                 205
Leu Leu Phe Arg Lys Asp Val Lys Val Glu Gly Phe Pro Asp Pro Ser
    210                 215                 220
Arg Gly Gln Asn Val Pro Val Arg Ser Tyr Leu Ala Lys Val Gln Pro
225                 230                 235                 240
```

<210> 30624
<211> 278
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (220)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 30624
Asn Ser Val Gly Lys Trp Met Pro Ser Ser His Ala Ala His Leu Glu
1               5                   10                  15
Trp Leu Gly Gly Val Ile Thr His Val Asp Lys Asn Thr Ser His Gln
            20                  25                  30
Leu His Pro Val Leu Gln Glu Phe Lys Glu Leu Ile Glu Thr Asn Ser
        35                  40                  45
Arg Val Tyr Leu Leu Ile Ser Ala Met Phe Ala Glu Ile Pro Arg Lys
    50                  55                  60
Arg Pro Tyr Arg Thr Asp Pro Thr Gly Cys Ala Gln Ile Arg Asp Tyr
65                  70                  75                  80
His His Leu Leu Gln Val Leu Asn Tyr Leu Leu Thr Thr Ala Pro Ser
                85                  90                  95
Trp Asn Asp Phe Ser His Arg Val Gly Leu Val Gly Leu Pro Ile Asn
            100                 105                 110
Ala Val Leu Asp Trp Ser Met Gly Thr Pro Ser Gly Tyr Ala Ala Tyr
        115                 120                 125
Leu Asp Pro Glu Ile Asn Arg Met Val Lys Lys Ile Leu Ser Ala Trp
    130                 135                 140
Gly Asp Tyr Leu Lys Ser Pro Lys Ser Ala Ser Val Leu Asn Asp Thr
145                 150                 155                 160
Ser Ser Gly Trp Phe Gly Ser Thr Ala Arg Ser Asp Leu Glu Glu Val
```

```
                165                 170                 175
Gly Asn Val Gly Glu Thr Ser His Ser Phe Glu Asp Leu Tyr Val Cys
            180                 185                 190
Asp Pro Ser Ala Lys His His Gly Phe Lys Ser Trp Asp Asp Phe Leu
        195                 200                 205
Thr Cys Phe Phe Ala Arg Gly Ser Asp Arg Trp Xaa Cys Leu Arg Ile
    210                 215                 220
His Gly Pro Ala Lys Ala Trp Arg Arg Ser Pro Pro Ser Gly Ser Gln
225                 230                 235                 240
Arg Gln Arg Ala Arg His Val Trp Ile Lys Glu Gln Pro Tyr Ser Val
                245                 250                 255
Arg Asp Met Leu Thr Thr Thr Ser Ser Arg Arg Ser Leu Ser Ala Glu
            260                 265                 270
Leu Ser Thr Lys Arg Ser
        275
```

<210> 30625
<211> 98
<212> PRT
<213> A.fumigatus

<400> 30625

```
Asp Leu Arg Ser Gly Leu Ser Thr Thr Leu Leu Gly Ser Leu Val Ala
1               5                   10                  15
Val Gly Ser Ser Glu Val Ala Cys His Gly Tyr Cys Arg Tyr Ser Asn
            20                  25                  30
Thr Arg Val Phe Ser Phe Val Leu Arg Asn Thr Ile Ile Val Gln Val
        35                  40                  45
Tyr Leu Lys Ser Met Tyr Glu Val Arg Arg Met Leu Leu Ser Ala Tyr
    50                  55                  60
Lys Leu Val Phe Pro Leu Asp Ser Tyr Pro Ile Ser Arg Thr Thr Asn
65                  70                  75                  80
Pro Pro Thr Thr Asn Asn Pro Pro Leu Thr Tyr Thr Gly Thr Leu Val
                85                  90                  95
Phe Arg
```

<210> 30626
<211> 86
<212> PRT
<213> A.fumigatus

<400> 30626

```
Arg Arg Thr Gly Ala Ser Leu Val Phe Asn Leu Asp Val Thr Gln Trp
1               5                   10                  15
Arg Ser Ala Asp Glu Asn Glu Gly Lys Gly Asp Ala Met Asp Gly Phe
            20                  25                  30
Ile Trp Val Ser Phe Ser His Gly His Glu Lys Glu Glu Gln Arg Trp
        35                  40                  45
Lys Gly Lys Ala Arg Cys Ala Ala Val Ala Leu Ala Gly Leu Gln Cys
    50                  55                  60
Leu Glu Tyr Gln Gln Thr Gln Lys Gly Ile Ile Thr Ile Phe Trp Val
65                  70                  75                  80
Glu Pro Leu Val Asn Val
                85
```

<210> 30627
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30627
Thr Ala Ser Pro Ala Pro Asn Ala Ala Ser Pro Ser Ser Ala Ser Asp
1 5 10 15
Thr Lys Lys Leu Asn Thr Glu Ile Tyr Val Ala Asp Gly Asp Tyr Ile
20 25 30
Lys Asp Ile Glu Ile Asn Asp Leu Arg Asn Arg Tyr Thr Leu Thr Lys
35 40 45
Gly Ser Thr Gln Lys Met Val Ile Ile Pro Phe Cys Val Cys
50 55 60

<210> 30628
<211> 64
<212> PRT
<213> A.fumigatus

<400> 30628
Asn Pro Pro Leu Tyr Leu His Val Thr Ser Thr Thr Lys Glu Gly Leu
1 5 10 15
Glu Lys Ala Val Ala Leu Ile Asp Glu Leu Met Gln Lys Glu Leu Pro
20 25 30
Asn Leu Val Asp Glu Arg Arg Phe Arg Arg Arg Glu Pro Asp Gln Val
35 40 45
Glu Arg Asp Glu Tyr Gly Arg Val Cys Ser Arg Ser Leu Val His Ile
50 55 60

<210> 30629
<211> 77
<212> PRT
<213> A.fumigatus

<400> 30629
Glu Gly Ala Asn Cys Val Gln Arg Lys Trp Pro Glu Glu Arg Ile Pro
1 5 10 15
Val Asp Leu Glu Pro Ile Pro Gly Phe Asn Leu Arg Ala Gln Val Val
20 25 30
Gly Gln Gly Gly Ala Tyr Val Lys His Ile Gln Gln Lys Thr Arg Cys
35 40 45
Lys Val Gln Ile Lys Gly Arg Gly Ser Gly Phe Leu Glu Pro Ser Thr
50 55 60
Gly Arg Glu Ser Asp Glu Pro Met Phe Leu His Val Ala
65 70 75

<210> 30630
<211> 154
<212> PRT
<213> A.fumigatus

<400> 30630
Val Cys Ser Ala Ala Trp Ile Leu Pro Arg Leu Thr Asp Leu Thr Leu
1 5 10 15
Ala Ala Asp Phe Gly Phe Cys Ala Lys Leu Thr Glu Ser Lys Ser Lys

```
            20                  25                  30
Arg Ala Thr Met Val Gly Thr Pro Tyr Trp Met Ala Pro Glu Val Val
        35                  40                  45
Lys Gln Lys Glu Tyr Gly Pro Lys Val Asp Cys Trp Ser Leu Gly Ile
    50                  55                  60
Met Ala Ile Glu Met Ile Glu Ser Glu Pro Pro Tyr Leu Asn Glu Glu
65                  70                  75                  80
Pro Leu Lys Ala Leu Tyr Leu Ile Ala Thr Asn Gly Thr Pro Arg Leu
                85                  90                  95
Lys Lys Pro Glu Lys Leu Ser Arg Glu Leu Lys Ser Phe Leu Ser Val
            100                 105                 110
Cys Leu Cys Val Asp Val Asn Ser Arg Ala Thr Ala Asp Glu Leu Leu
        115                 120                 125
Glu His Asp Phe Leu Lys Thr Gly Cys Ser Leu Ala Ser Leu Ala Glu
    130                 135                 140
Leu Leu Arg Trp Lys Lys Asn Ser Gly Gln
145                 150

<210> 30631
<211> 88
<212> PRT
<213> A.fumigatus

<400> 30631
Leu Pro Arg Lys Ala Glu His Ser Pro Asn Asn Thr Pro Trp Glu Asp
1               5                   10                  15
Cys Leu Pro Leu Leu Gln Asn Pro Leu Pro Ser Ile Gln Ser Asn Ala
            20                  25                  30
Ala Pro Ser Ser Asn Leu Leu Leu Leu Pro Gly Ser Pro Thr Asn Gly
        35                  40                  45
Lys Ala Ala Leu Leu Pro Leu Pro Gly Lys Asn Lys Tyr Asn Arg Gly
    50                  55                  60
Glu Leu Thr Leu Pro Asn Pro Pro Ser Leu Asn Phe Phe Gly Ile Pro
65                  70                  75                  80
Ala Lys Phe Gly Lys Tyr Asn His
                85

<210> 30632
<211> 78
<212> PRT
<213> A.fumigatus

<400> 30632
Val Trp Arg Arg Asn Arg Asn Gln Leu Gln Gly Ser Asn Gln Leu Val
1               5                   10                  15
Trp Ala Arg Ser Lys Pro Leu Ser Arg Leu Thr Asn Leu Asp Met Thr
            20                  25                  30
Ser Ala Ile Gln Lys Asp Ile Ile Thr Leu Asp Ile Thr Met Asp Asn
        35                  40                  45
Ile Leu Thr Met Lys Val Gly Gln Thr Leu Ala Ser Leu Gly Thr Gln
    50                  55                  60
Ser Ala Ser Gln Gln Leu Pro Phe Arg Tyr Phe Leu His Ile
65                  70                  75

<210> 30633
<211> 109
```

<212> PRT
<213> A.fumigatus

<400> 30633
Leu Val Ala Pro Thr Ser Thr Ser Ser Gly Gly Arg Tyr Glu Val Gln
1 5 10 15
Ser Val Gly Arg Lys Gly Thr Ser Lys Arg Thr Asp Asn Glu Ala Pro
20 25 30
Gln Met Arg Lys Ser Leu Gly Thr Thr Arg Ala Thr Thr Asp Glu Asp
35 40 45
Val Leu Glu Lys Trp Asp Glu Gly Leu Ser Asp Asp Ser Asn Ser Ser
50 55 60
Ser Asn Asp Glu Asp Thr Ile Glu Thr Gln Gly Ile Leu Pro Glu Asn
65 70 75 80
Arg Pro Ser Leu Val Ser Phe Glu Val Leu Asn Ala Phe Arg Glu Leu
85 90 95
Lys Asp Gln Phe Asp Glu Lys Phe His Ala Ile Phe Ala
100 105

<210> 30634
<211> 127
<212> PRT
<213> A.fumigatus

<400> 30634
Cys Leu Lys Leu Gln Lys Ser Cys Ile Gln Asp Thr Phe Asp Thr Ala
1 5 10 15
Ser Gln Leu Ile Thr Tyr Leu Thr Asp Met Asn Pro Ser Gly Ser Ser
20 25 30
Ser Ile Gly Gly Asn Arg Ser Glu Glu Ser Thr Pro Arg Arg Val Ser
35 40 45
Gly Thr Val Trp His Pro Ala Arg Glu Trp Leu Glu Gln Asp Glu Glu
50 55 60
Glu Asp Asp Met Asp Tyr Glu Pro Glu Ser Glu Val Thr Glu Asp Arg
65 70 75 80
Asp Glu Asp Gly Tyr Glu Asn Glu Asp Gln Asn Glu Asp Glu Asp Glu
85 90 95
Gly His Phe Gly Ser Phe Ala Arg Asn Gly Leu Leu Phe Leu Ser Tyr
100 105 110
Glu Thr Asn Leu Gly Ser Asn Asp Leu Lys Thr Leu Thr Cys Val
115 120 125

<210> 30635
<211> 145
<212> PRT
<213> A.fumigatus

<400> 30635
Val Leu Asp Leu Leu Arg Arg Lys Arg Ser Phe Val Leu Ile Trp Trp
1 5 10 15
Ala Ser Gln Asp Leu Ile Pro Gly Ser Ala Ala Asp Lys Ile Ile His
20 25 30
Tyr Asp Ser Arg Cys Tyr Ser Gly Gln Phe Ser Asp Asp Gly Asn Phe
35 40 45
Phe Phe Cys Cys Ala Gln Asp Phe Lys Val Arg Met Tyr Asp Thr Ser
50 55 60

```
Asn Pro Phe Glu Trp Lys Tyr Tyr Lys Thr Val Asp Tyr Pro Phe Gly
65                  70                  75                  80
Gln Trp Thr Ile Thr Asp Ala Ser Leu Ser Pro Asp Asn Lys Phe Leu
                85                  90                  95
Ala Tyr Thr Ser Ile Arg Asn Ile Val Cys Leu Ala Pro Thr Asp Pro
            100                 105                 110
Ala Asp Gln Ser Asp Pro Ser Val Leu Asp Leu Ser Leu Gly Arg Val
        115                 120                 125
Gly Arg Gly Phe His Asp Ser Ser His Ser Ala Val Arg Ile Pro Ile
    130                 135                 140
Lys
145
```

<210> 30636
<211> 89
<212> PRT
<213> A.fumigatus

<400> 30636

```
Ser Thr Thr Leu His Ser Thr Ile Thr Tyr Ile Phe Phe Leu Asn His
1               5                   10                  15
Asn Thr Phe Ala Tyr Leu Glu Asn Gly Ser Pro Asp Glu Ser Arg His
            20                  25                  30
Pro Thr Asn Ser Arg Thr His Ser Leu Lys Ser Ala Ser Val Glu Ala
        35                  40                  45
Ser Pro His Ser Phe Gln Gln Ile Phe Ser Glu Ile Val Asp Lys Ile
    50                  55                  60
Pro Lys Ile Lys Glu Phe Thr Glu Leu Ile Tyr Glu Asn Ile Thr Arg
65                  70                  75                  80
Lys Met Val His Trp Ser Val Ser His
                85
```

<210> 30637
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30637

```
Lys Leu Leu Phe Trp Ala Lys Thr Met Ile Tyr Val Leu Phe Asp Tyr
1               5                   10                  15
Leu Gly Ala Met Asp Ser Cys Ser Leu Leu Met Cys Asp Ala Phe Ser
            20                  25                  30
Leu Arg Thr Ile Leu Met Tyr Met Gln Pro Asn Lys Asp Met Val Glu
        35                  40                  45
Asp Ile Asp Ile Ile Lys Arg Asp Thr Pro Ala Phe Asp Gln Lys Leu
    50                  55                  60
Ser Phe Pro
65
```

<210> 30638
<211> 270
<212> PRT
<213> A.fumigatus

<400> 30638

```
Ser Glu Arg Thr Gln Leu His Arg Lys Asn Met Met Pro Ala Phe Thr
```

```
1               5                   10                  15
Val Pro His Val Arg Lys Leu Thr Ser Ile Phe Trp Ala Lys Ala Gln
            20                  25                  30
Glu Met Val Arg Cys Met Ser Asn Glu Leu Arg Ala Asp Ser Phe Ala
        35                  40                  45
Arg Ile Asp Phe Arg Glu Tyr Met Ser Arg Ala Thr Leu Asn Asn Ile
    50                  55                  60
Gly Leu Ala Gly Met Gly His Asp Phe Gln Thr Leu Lys Gln Pro Asp
65                  70                  75                  80
Thr Asp Leu Arg Ser His His Arg Lys Leu Ile Leu Asp Pro Thr Arg
                85                  90                  95
Val Phe Ser Trp Val Gly Leu Leu Ser Arg Tyr Phe Asp Met Arg Leu
            100                 105                 110
Leu Met Arg Val Pro Leu Lys Lys Leu Ile Glu Ile Ser Gln Ser Ala
        115                 120                 125
Lys Tyr Leu Arg Glu Leu Thr Thr Ala Val Ile Gln Gly Arg Arg Glu
    130                 135                 140
Gln Leu Val Val Ala Glu Asn Asn Arg Gly Lys Asp Ile Ile Thr Val
145                 150                 155                 160
Ala Leu Ala Gly Gly Val Phe Asp Glu His His Val Val Asp His Val
                165                 170                 175
Met Thr Phe Leu Thr Ala Gly His Glu Ser Thr Ala Thr Ala Phe Glu
            180                 185                 190
Trp Thr Met Tyr Glu Leu Gly Arg Arg Pro Glu Met Gln Ser Arg Leu
        195                 200                 205
Arg Asp Glu Leu Arg Ala Thr Ile Gly Thr Asp Leu Ala Ala Val Asn
    210                 215                 220
Phe Gly Leu Arg Val Gln Asn Leu Pro Tyr Leu Asn Ala Phe Cys Ser
225                 230                 235                 240
Glu Val Leu Arg Cys Tyr Pro Leu Ser Pro Ile Ile Val Lys Ser His
                245                 250                 255
Gln Arg Asn Phe His Gln Thr Ala Pro Arg Ile Ser Gly Arg
            260                 265                 270
```

<210> 30639
<211> 114
<212> PRT
<213> A.fumigatus

<400> 30639

```
Arg Arg Arg Ile Leu Thr Gly Asn Tyr Pro Val Leu Phe Pro Asp Asn
1               5                   10                  15
Ala Trp Val Pro Leu Arg Glu Leu Ala Glu Thr Thr Pro Asn Asp Gly
            20                  25                  30
Leu Leu Arg Ile Tyr Ser Ala Leu Ser Gly Glu Ala Leu Leu Val Thr
        35                  40                  45
Ser Pro Pro Ala Ile Arg Asp Met Leu Thr Val Asn Ala Phe Asp Phe
    50                  55                  60
Thr His Gln Asp Leu Val Lys Ile Ala Ile Arg Arg Phe Thr Gly Ser
65                  70                  75                  80
Asn Leu Gly Phe Leu Ser Asn Asp Glu Phe Lys Ala Cys Lys Gln His
                85                  90                  95
Ile Ala Pro Gly Leu Val Ala Asp Gln Arg Glu His Ser Ser Ile Ala
            100                 105                 110
Lys Thr
```

<210> 30640
<211> 231
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (26)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30640
Cys Leu Leu Asp Ser Gln Gln His Ile Lys His Trp Asn Phe Val Ala
1 5 10 15
Asn Phe Pro Val Phe Phe Leu Phe Leu Xaa Leu Ile Tyr Phe Pro Thr
20 25 30
Met Ser Glu Leu Pro Ser Ser Gln Pro Ala Ile Ile Glu Ser Asp Asp
35 40 45
Gly Thr Leu Gly Leu Arg Asn Asp Val Gln Met Pro Ser Leu Glu Asp
50 55 60
Asp Met Ile Leu Val Arg Asn Ala Phe Val Ala Leu Asn Pro Ile Asp
65 70 75 80
Thr Lys Met Val Gly Lys Leu Ala Ser Pro Gly Ala Ile Ala Gly Lys
85 90 95
Asp Phe Ala Gly Glu Val Val Ser Ile Gly Pro Lys Val Gln Thr Ala
100 105 110
Ala Pro Ile Lys Pro Gly Asp Arg Ile Cys Gly Ala Val Pro Gly Met
115 120 125
His Ser Leu Thr Pro Ala Val Gly Ala Phe Ala Gln Tyr Val Gly Ala
130 135 140
Thr Asp Leu Thr Ala Ile Lys Ile Pro Glu Tyr Met Ser Leu Glu Glu
145 150 155 160
Ala Val Thr Leu Gly Ser Gly Ile Gly Thr Ile Gly Leu Ala Leu Phe
165 170 175
Lys Ser Leu Asp Val Pro Gly Ser Pro Trp Leu Pro Ala Asp Lys Pro
180 185 190
Val Asp Val Leu Val Tyr Gly Gly Ser Thr Ala Thr Gly Thr Leu Ala
195 200 205
Ile Gln Leu Leu Lys Leu Tyr Val Thr Val Ser Val Cys Tyr Ser Leu
210 215 220
Arg Ser Lys Tyr Leu Leu Thr
225 230

<210> 30641
<211> 148
<212> PRT
<213> A.fumigatus

<400> 30641
Pro Ser Arg Ser Gly Val Asn Pro Ile Thr Thr Cys Ser Pro Thr Lys
1 5 10 15
Phe Asp Leu Val Lys Ser Tyr Gly Ala Thr Ala Ala Phe Asp Tyr Arg
20 25 30
Gln Lys Thr Cys Ala Asp Asp Ile Arg Lys Tyr Thr Arg Asn Ser Leu
35 40 45
Lys Phe Val Leu Asp Cys Ile Ser Glu Pro Glu Thr Met Gln Phe Cys

```
    50                  55                  60
Tyr Lys Cys Leu Gly Arg Trp Gly Gly Gly Gly Glu Tyr Thr Ala Leu
65                  70                  75                  80
Glu Pro Tyr Arg Lys Phe Val His Thr Arg Pro Lys Thr Val Val Pro
                85                  90                  95
Asp Trp Val Leu Gly Pro Thr Leu Leu Gly Lys Arg Leu Asn Trp Pro
            100                 105                 110
Glu Pro Phe Gly Gly Glu Gly Asn Glu Glu Tyr Arg Arg Phe Gly Phe
        115                 120                 125
Lys Trp Phe Lys Leu Val Gln Glu Leu Ala Gly Ser Arg Glu Val Glu
    130                 135                 140
Asp Ala Ser Ala
145
```

<210> 30642
<211> 282
<212> PRT
<213> A.fumigatus

<400> 30642

```
Arg Ile Tyr Ser Pro Ala Arg Ser Pro Arg Met His Pro Ala Asn Thr
1               5                   10                  15
Lys Asp Pro Ile Trp Ala Thr Val Glu Ser Ser Ala Phe Phe Ile Arg
            20                  25                  30
Asp His His Thr Gly Asn Glu Ile Ile Ile Phe Gly Asp Val Glu Pro
        35                  40                  45
Asp Cys Val Ser Leu Asp Pro Arg Asn Lys Arg Val Trp Glu Ala Ala
    50                  55                  60
Ala Pro Lys Ile Ala Thr Gly Lys Leu Arg Ala Ile Phe Ile Glu Cys
65                  70                  75                  80
Ser Tyr Asp Asp Ser Val Glu Asp Ala Thr Leu Tyr Gly His Leu Cys
                85                  90                  95
Pro Arg His Leu Ile Ala Glu Leu Thr Leu Leu Ala Gly Lys Val Met
            100                 105                 110
Glu Ala Arg His Pro Arg Met Ala Ile Ser Ser Ile Gly Lys Arg Lys
        115                 120                 125
His Ser Asp Ser Asn Arg Tyr Gly Gly Ser Gly Gly Gln Val Ser Pro
    130                 135                 140
Lys Ser Lys Arg Phe Gln Ser Phe Ser Val Ala Ala Gly Lys Arg Ala
145                 150                 155                 160
Asp Met Asp Ser Val Thr Val Asp Met Arg Pro Arg Phe Tyr Ser Thr
                165                 170                 175
Ala Glu Gly Leu Ala Glu Ile Pro Glu Leu Val His Asp Glu Pro Thr
            180                 185                 190
Pro Ser Tyr His Glu Pro Asp Asp Val Ser Asp Thr Glu Asn Ser Val
        195                 200                 205
Asp Pro Ala Pro Gln Ser Thr Ser Pro Gly Glu Ala Gln Thr Ser Asp
    210                 215                 220
Ser Gly Gln Leu Pro Leu Ser Gly Leu Ser Ile Tyr Ile Ile His Ile
225                 230                 235                 240
Lys Glu Asp Leu Thr Asp Asp Ile Pro Pro Arg Glu Arg Ile Leu Gln
                245                 250                 255
Gln Leu Arg Ser Arg Gly Glu Ala Ala Arg Leu Gly Cys Glu Phe Tyr
            260                 265                 270
Ala Pro His Arg Gly Glu Gly Ile Trp Val
        275                 280
```

<210> 30643
<211> 139
<212> PRT
<213> A.fumigatus

<400> 30643
Leu Thr Ser Cys Leu Met Lys Gly Pro Thr Gly Gly Pro Arg Glu Asp
1 5 10 15
Ser Leu Thr Gly Leu Leu Val Arg Ser Thr Ser Thr Asn Trp Ser Thr
20 25 30
Asn Ser Val Ile Ala Val Asp Ala Gly Thr Leu Val Ser Gly Ile Ile
35 40 45
His Thr Leu Glu Gln Tyr Asn Ala Glu Leu Arg Asp Gly Ser Tyr Met
50 55 60
Met Asn Glu Gly Pro Phe Ala Gly Leu Arg Met Pro Tyr Lys Ser Ala
65 70 75 80
Gln Ala Asn Ala Ala His Ile Phe Arg Asp Ile Ile Gly Ala Val Leu
85 90 95
Ile Thr His Ala His Leu Asp His Leu Ser Gly Leu Ala Ile Asn Thr
100 105 110
Pro Met Leu Glu Ala Gly Asn Gly Pro Lys Pro Leu Ala Ala Leu Pro
115 120 125
Val Asn Cys Arg Cys His Lys Lys Pro Tyr Ala
130 135

<210> 30644
<211> 191
<212> PRT
<213> A.fumigatus

<400> 30644
Thr Cys Ala Leu Ser Arg Ile Gln Ile Pro Trp Pro Arg Ala Ser Ile
1 5 10 15
Lys Arg Ala Gly Ile Asn Ser Phe Gly His Gly Gly Thr Ser Cys His
20 25 30
Ile Ile Ile Glu Asp Ala Gln Gln Leu Leu Asp Ala Arg Gly Ile Ile
35 40 45
Pro His Gly Arg Ser Phe Leu Ser Thr Ser Thr Ser Ser Trp Met Asp
50 55 60
Glu Asp Asp Asp Glu Asp His Ala Ala Ser Gln Ser Thr Pro Cys Thr
65 70 75 80
Ser His Ile Leu Leu Ile Ser Ala Gln Asp Pro Leu Ser Leu Arg Cys
85 90 95
Asn Glu Arg Glu Ile Leu Arg His Leu Ala Ser Leu Asp Val Arg Val
100 105 110
Asp Leu Gly Asn Leu Ala Tyr Thr Leu Ser His Arg Arg Ser His His
115 120 125
Cys His Arg Ala Tyr Ala Val Val Thr Ser Ser Ala Leu Ser Gln Ala
130 135 140
Arg Phe Val Asp Gly Lys Ile Leu Ala Arg Glu Pro Arg Ile Gly Phe
145 150 155 160
Val Phe Thr Gly Gln Gly Ser Gln Trp Pro Gln Asp Gly Asp Cys Thr
165 170 175
His Gln Ile Ile Pro Arg Ser Cys Glu Ala His Gln Ala Pro Gly
180 185 190

<210> 30645
<211> 146
<212> PRT
<213> A.fumigatus

<400> 30645
Pro Leu Lys Arg Met Arg Arg Ser Gly Asp Lys Ala Glu Met Asp Pro
1 5 10 15
Gln Thr Ile Ser Lys Tyr Phe Ile Gly Leu Glu Asp Arg Val His Ile
20 25 30
Ala Cys His Asn Ser Pro Thr Asn Val Thr Leu Ala Gly Val Leu Ser
35 40 45
Ala Leu Glu Glu Val Gln Ala Arg Leu Arg Gln Asp Asp His Ala Cys
50 55 60
Arg Met Leu Gln Val Asp Ile Pro Tyr His Ser Lys Phe Val Ala Ala
65 70 75 80
Thr Ala Glu Ala Phe Glu Gln Phe Thr Leu Gln Glu Arg Pro Leu Val
85 90 95
Gln Glu Leu Gly Cys Ser Gly Gly Val Thr Asn Ala Val Asp Arg His
100 105 110
Trp Gln Pro Ile Gly Gly Pro Asp Leu Gln Gln Leu Ile Leu Glu Ser
115 120 125
Gln Leu Gly Val Ser Ser Phe Ile Pro Ser Arg Asn Gly Ser Tyr Pro
130 135 140
Pro Ser
145

<210> 30646
<211> 118
<212> PRT
<213> A.fumigatus

<400> 30646
Ala Ala Ala Glu Ala Ser Gln Met Leu Ser Thr Val Thr Gly Ser Arg
1 5 10 15
Leu Glu Gly Arg Thr Cys Asn Ser Ser Tyr Trp Arg Ala Asn Leu Glu
20 25 30
Ser Pro Val Leu Phe Arg His Ala Met Glu Ala Ile Leu Arg His Asp
35 40 45
Gln His Pro Asp Ile Leu Ile Glu Ile Gly Pro Ser Asp Thr Leu Arg
50 55 60
Arg Pro Val Met Lys Pro Lys His Ser Leu Gly Gln Gly Asp Gly Pro
65 70 75 80
Leu Lys Asp Thr Asp Ile Gln Tyr Leu Ser Ala Leu His Arg Gly Asp
85 90 95
Met Ser Ala Asp His Met Leu His Ile Val Tyr Thr Pro Gly Met Glu
100 105 110
Val Leu Ser Pro Pro Gly
115

<210> 30647
<211> 101
<212> PRT
<213> A.fumigatus

<400> 30647
Asn Cys Thr Asp Glu Leu Thr His Ala Arg Asp Pro Glu Val Val Arg
1 5 10 15
Arg Pro Glu Phe Ser Glu Pro Leu Ser Ala Ala Leu Glu Leu Ala Ile
20 25 30
Leu Ala Val Met Glu Asn His Ser Val Arg Pro His Trp Val Val Gly
35 40 45
His Ser Ser Gly Glu Ile Ala Ala Ala Tyr Val Ala Gly Phe Leu Pro
50 55 60
Leu Glu Asp Ala Ile Lys Ile Ala Tyr Phe Arg Gly Gln Ala Ala Gln
65 70 75 80
Gly Ala Cys Asp Thr Val Lys Glu Arg Met Gly Met Thr Pro Glu Ala
85 90 95
His Glu Lys Glu Arg
100

<210> 30648
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30648
Leu Gly Val Pro Gly Ile Glu Pro Ser Ser Met Asp Asn Thr Ile Leu
1 5 10 15
Ile Arg Pro Asp Ser Pro Asp Val Ala Ser Glu Ser Pro Arg Leu Leu
20 25 30
Phe Ile Tyr Asn Ala Gly Glu Val Asn His Leu Asn Gly Tyr Phe Val
35 40 45
Val Glu Asp Leu Thr Glu Pro Thr Met Ser Gly Ser Ser Met Leu Val
50 55 60
Phe Thr His Ser Thr Ala Pro Ile
65 70

<210> 30649
<211> 459
<212> PRT
<213> A.fumigatus

<400> 30649
Leu Ala Met Ala Ile Ser Ala Thr Ile Ser Gly Ala His Ala Ile Leu
1 5 10 15
Leu Ala Thr Gln Phe Cys Ala Thr Gly Asn Val Val His Leu Pro Leu
20 25 30
Leu His Ala Gln Phe Pro Ser Tyr Leu Ser Leu Glu Arg Leu Leu Arg
35 40 45
Ile Ile Leu Thr Phe Leu Pro Glu Ser Ile Glu Pro Gln Ala Tyr Thr
50 55 60
Ser Val Leu Gln Glu Leu Val Ser Gly Ser Ser Ile Gly Pro Thr Glu
65 70 75 80
Gly Asp Val Asp Val Ser Ala Val Gln Asp Leu Pro Glu Thr Val Ala
85 90 95
Arg Lys Arg Val Arg Lys Leu Arg Leu Leu Pro Leu Arg His Pro Asp
100 105 110
Asp Glu Asp Ser Glu Pro Ser Asp Leu Leu Thr Gln Phe Leu Ile His
115 120 125
Arg Ser His Arg Ile Asp Ser Glu Thr Gly Leu Gln Pro Leu Ile Leu

```
    130                 135                 140
Asp Leu Leu Leu Pro Phe Tyr Gln Arg Ser Thr Thr Val Arg Thr Trp
145                 150                 155                 160
Leu Ile Ser Ser Ile Leu Pro Leu Leu Arg Leu Asn Cys Glu Tyr Tyr
                165                 170                 175
Pro Ser Gln Asp Glu Met Phe Ser Leu Asn Thr Leu Glu Ser Met Asp
            180                 185                 190
Asp Ala Thr Ala Val Asn Val Leu Leu Ser Met Thr Ser Pro Arg Lys
        195                 200                 205
Asp Lys Met Asp Ile Ala Arg Asn Leu Arg Gly Leu Val Gly Ala Trp
    210                 215                 220
Ile Tyr Gly Ser Asn Arg Ala Lys Arg Arg Arg Leu Ser Glu Ala Ala
225                 230                 235                 240
Asn Gln Ser Ala Ile Ser Leu Ser Pro Asp Asn His Arg Pro Lys Thr
                245                 250                 255
Thr Thr Asp Ser Ile Trp Gln Gln Val Asn Glu Trp Leu Leu Ser His
            260                 265                 270
Ser Leu Val Glu His Asp Thr Thr Val Asn Ala Phe Val His Trp Asp
        275                 280                 285
Gly Pro Gly Asp Val Asp Leu Gly Gly Tyr Glu Glu Glu Asn Gln Gln
    290                 295                 300
Pro Thr Gln Asp Glu Leu Thr Glu Met Arg Thr Arg Tyr Gly Gln Thr
305                 310                 315                 320
Gly Leu Ala Val Val Tyr Ala Asn Pro Asp Thr Ser Ser Ser Ser Leu
                325                 330                 335
Gly Arg Phe Asn Ala Asp Cys Cys Glu Gly Gly Ser Val Thr Gln Ser
            340                 345                 350
Pro Gly Leu Ser Val Cys Ser Pro Gln Gly Phe Ser Ala Pro Phe Gly
        355                 360                 365
Asp Phe Arg Cys Gly Arg Asp Pro Val His Ile Lys Ser His Ile Val
    370                 375                 380
Thr Lys Cys Leu Thr Thr Glu Phe Glu Ser Val Asp Ala Ser Val Cys
385                 390                 395                 400
Phe Val Gly Leu Val Leu Glu Arg Thr Thr Ser Leu Phe Ala Gly Ala
                405                 410                 415
Ala Trp Asn Gly Arg Phe Asn Thr Leu Gln Ala Ser Cys Lys Pro Val
            420                 425                 430
Leu Ala Gln His Arg Gly His Ala Thr Cys Arg Ala Ser Gln Tyr Gly
        435                 440                 445
Trp Phe Gly Cys Gln Ala Gly His Ser Trp Ser
    450                 455
```

<210> 30650
<211> 140
<212> PRT
<213> A.fumigatus

<400> 30650

```
Leu Ile Thr Tyr Leu Ala Pro Cys Asn Gly Asp Cys Ala Thr Val Asp
1               5                   10                  15
Lys Thr Thr Leu Lys Phe Val Lys Ile Ala Ala Gln Gly Leu Ile Asp
            20                  25                  30
Gly Ser Asn Pro Pro Gly Val Trp Ala Asp Asp Glu Met Ile Ala Asn
        35                  40                  45
Asn Asn Thr Ala Thr Val Thr Ile Pro Ala Ser Tyr Ala Pro Gly Asn
    50                  55                  60
```

```
Tyr Val Leu Arg His Glu Ile Ile Ala Leu His Ser Ala Gly Asn Leu
65                  70                  75                  80
Asn Gly Ala Gln Asn Tyr Pro Gln Cys Phe Asn Ile Gln Ile Thr Gly
                85                  90                  95
Gly Gly Ser Ala Gln Gly Ser Gly Thr Ala Gly Thr Ser Leu Tyr Lys
            100                 105                 110
Asn Thr Asp Pro Gly Ile Lys Phe Asp Ile Tyr Ser Asp Leu Ser Gly
        115                 120                 125
Gly Tyr Pro Ile Pro Gly Pro Ala Leu Phe Asn Ala
    130                 135                 140
```

<210> 30651
<211> 100
<212> PRT
<213> A.fumigatus

<400> 30651

```
Thr Thr Gln Met Thr Ala Ala Thr Ala Asn Phe Tyr Ser Ser Tyr Gly
1               5                   10                  15
Gly Tyr Leu Val Asn Gln Tyr Pro Tyr Met Ser Asn Pro Pro Asp Thr
            20                  25                  30
Ile Ala Trp Ser Thr Thr Ala Thr Asp Leu Gly Phe Val Asp Gly Thr
        35                  40                  45
Gly Tyr Gln Ser Pro Asp Ile Ile Cys His Arg Asp Ala Lys Asn Gly
    50                  55                  60
Lys Leu Thr Ala Thr Val Ala Ala Gly Ser Gln Ile Glu Phe Gln Trp
65                  70                  75                  80
Thr Thr Trp Pro Glu Ser His His Gly Pro Val Arg Arg Arg Arg Glu
                85                  90                  95
Glu Asn Ile Met
            100
```

<210> 30652
<211> 231
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (172),(203)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30652

```
Pro Thr Ser Cys Thr His Ile Thr Gly Arg Thr Gln Pro Leu Arg Thr
1               5                   10                  15
Ala Thr Val Gly Ala Ser Gly His Ala Arg Ile Thr Tyr Pro Ser Glu
            20                  25                  30
Trp Thr Ala Pro Leu Arg Thr Gly Gln Ser Ser Arg Ala Ser Thr Pro
        35                  40                  45
Pro Lys Ser Gln Arg Cys Thr Lys Ile Ser Arg Pro His Pro Thr Thr
    50                  55                  60
Cys Cys Ser Gly Ser Thr Thr Ser Thr Thr Pro Ser Val Cys Thr Pro
65                  70                  75                  80
Ala Lys Pro Ser Ser Ser Thr Ser Thr Met Arg Ile Thr Pro Ala Pro
                85                  90                  95
Arg Arg Leu Lys Pro Ser Ser His Ser Gly Ser Arg Ser Glu Asn Ala
```

```
            100                 105                 110
Leu Met Gln Ser Ala Thr Ser Thr Ser Ser Leu Ala Ser Ser Thr Lys
        115                 120                 125
Arg Gly Ile Arg Ser Ser Gly Val Thr Pro Ser Thr Thr Ser Thr Ile
    130                 135                 140
Ile Ser Arg Gly Ser Pro Thr Lys Ser Ser Glu Trp Asp Thr Thr Pro
145                 150                 155                 160
Gly Val Ser Lys Arg Arg Thr Cys Ser Ser Met Xaa Thr Cys His Thr
                165                 170                 175
Pro Leu Val Arg Ser Arg Pro Arg Pro Asn Thr Leu Leu Ser Ser Leu
            180                 185                 190
His Gln Met Ala Pro Pro Glu Gln Arg Ala Xaa Arg Trp Thr Ser Arg
        195                 200                 205
Gln Ala Arg Thr Ile Trp Ala Ser Thr Thr Thr Ile Cys Thr Gly Ala
    210                 215                 220
Ser Leu Thr Gly Arg Cys Ile
225                 230
```

<210> 30653
<211> 378
<212> PRT
<213> A.fumigatus

<400> 30653

```
Ser Phe Gln Pro Arg Gly Glu Asp Leu Asp Arg Asn Ser Lys Met Val
1               5                   10                  15
Cys Thr Arg Ile Leu Gly Lys His Ala Ser Val Lys Ser Thr Gly Cys
            20                  25                  30
Ser Thr Asp Ser Ser Ile Ile Val Gly Thr Val Glu Ala Tyr Arg Gln
        35                  40                  45
Val Cys Asn Ala Gly Arg Gln Val Pro Gln Leu Asp Val Asp Gly Phe
    50                  55                  60
Trp Leu Ser Ile Arg Glu Lys Ser Val Leu Ile Val Gly Gln Ser Glu
65                  70                  75                  80
Arg Gly Ala Leu Tyr Gly Ala Tyr Glu Tyr Leu Ser Met Leu Ala Gln
                85                  90                  95
Gly Asn Phe Ser Gln Val Ser Tyr Ala Thr Ser Pro His Ala Pro Ile
            100                 105                 110
Arg Trp Val Asn Gln Trp Asp Asn Met Asp Gly Ser Ile Glu Arg Gly
        115                 120                 125
Tyr Gly Gly Pro Ser Ile Phe Phe Lys Asp Gly Val Ile Arg Gln Asp
    130                 135                 140
Leu Ser Arg Val Gln Gln Tyr Ala Arg Leu Leu Ala Ser Val Arg Ile
145                 150                 155                 160
Asn Gly Ile Ile Val Asn Asn Val Asn Ala Asn Ala Ser Leu Leu Met
                165                 170                 175
Pro Ser Asn Met Asp Gly Leu Ala Arg Ile Ala Asp Ile Phe Arg Pro
            180                 185                 190
Tyr Gly Ile Arg Val Gly Ile Ser Leu Asn Phe Ala Ser Pro Ser Thr
        195                 200                 205
Leu Gly Asn Leu Ser Thr Tyr Asp Pro Phe Asp Ser Ser Val Ile Ala
    210                 215                 220
Trp Trp Gly Asn Val Thr Asp Gln Leu Tyr Ala Arg Ile Pro Asp Met
225                 230                 235                 240
Ala Gly Tyr Leu Val Lys Ala Asn Ser Glu Gly Gln Pro Gly Pro Thr
                245                 250                 255
```

```
Thr Tyr Asn Arg Thr Leu Ala Asp Gly Ala Asn Met Phe Ala Arg Ala
            260                 265                 270
Leu Lys Pro Tyr Gly Gly Val Val Met Phe Arg Ala Phe Val Tyr Asp
        275                 280                 285
His His Ile Ser Glu Asp Asn Trp Tyr Asn Asp Arg Ala Asn Ala Ala
    290                 295                 300
Val Asp Phe Phe Lys Pro Leu Asp Gly Lys Phe Asp Asp Asn Val Val
305                 310                 315                 320
Leu Gln Ile Lys Tyr Gly Pro Ile Asp Phe Gln Val Arg Glu Pro Ala
                325                 330                 335
Ser Pro Leu Phe Ala Asn Leu Phe Lys Thr Asn Thr Ser Ile Glu Leu
            340                 345                 350
Gln Arg Asn Pro Gly Glu Ser Pro Thr Ala Val Thr Ser Gly Val Leu
        355                 360                 365
Ala Ser Thr Leu Ala Asn Asp Pro Gly Val
    370                 375
```

<210> 30654
<211> 484
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (353),(384)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30654

```
Thr Phe Ser Ser Arg Leu Met Ala Asn Leu Thr Thr Met Trp Tyr Cys
1               5                   10                  15
Arg Ser Ser Thr Asp Pro Leu Thr Ser Arg Ser Ala Ser Pro Pro Arg
            20                  25                  30
Pro Cys Leu Pro Thr Cys Ser Arg Pro Thr His Gln Ser Ser Cys Lys
        35                  40                  45
Gly Thr Gln Glu Asn Leu Arg Gln Gln Ser His Leu Val Tyr Leu Pro
    50                  55                  60
Pro Leu Trp Gln Thr Ile Leu Gly Phe Asp Leu Arg Val Asp Gln Lys
65                  70                  75                  80
Pro Pro Leu Val Arg Asp Ile Ile Ser Gly Gln Arg Phe Asp Arg Pro
                85                  90                  95
Leu Gly Gly Trp Ala Ala Val Val Asn Val Gly Thr Asn Ser Thr Trp
            100                 105                 110
Leu Gly Ser His Leu Ala Met Ser Asn Leu Tyr Ala Tyr Gly Arg Leu
        115                 120                 125
Ala Trp Glu Pro Thr Leu Asp Ser Glu Asp Ile Val Gln Asp Trp Ile
    130                 135                 140
Arg Leu Thr Phe Gly Leu Asp Arg Arg Ile Val Asp Thr Leu Thr Gln
145                 150                 155                 160
Met Ser Met Glu Ser Trp Pro Ala Tyr Glu Asn Tyr Ser Gly Asn Leu
                165                 170                 175
Gly Ile Gln Thr Leu Thr Asp Ile Leu Tyr Thr His Tyr Gly Pro Asn
            180                 185                 190
Pro Ala Ser Gln Asp Gly Asn Gly Trp Gly Gln Trp Thr Arg Ala Asp
        195                 200                 205
His Leu Ser Ile Gly Met Asp Arg Thr Val Lys Asn Gly Thr Lys Phe
    210                 215                 220
```

```
Ser Gly Gln Tyr Pro Ala Glu Val Ala Ala Met Tyr Glu Asn Ile Glu
225                 230                 235                 240
Thr Thr Pro Asp Asn Leu Leu Leu Trp Phe His His Val Asn Tyr Thr
                245                 250                 255
Gln Arg Leu His Ser Gly Lys Thr Val Ile Gln His Phe Tyr Asp Ala
            260                 265                 270
His Tyr Thr Gly Ala Glu Thr Ala Gln Thr Phe Val Ser Gln Trp Glu
        275                 280                 285
Ser Leu Arg Glu Arg Ile Asp Ala Glu Arg Tyr Gln His Val Leu Thr
    290                 295                 300
Arg Leu Ile Tyr Gln Ala Gly His Ser Ile Val Trp Arg Asp Ala Ile
305                 310                 315                 320
Asn Asn Phe Tyr His Asn Leu Ser Gly Ile Ala Asp Glu Lys Gln Arg
                325                 330                 335
Val Gly His His Pro Trp Arg Val Glu Ala Glu Asp Met Gln Leu Asp
            340                 345                 350
Xaa Tyr Val Pro Tyr Ala Val Ser Pro Phe Glu Thr Ala Ser Lys Tyr
        355                 360                 365
Thr Ala Ile Val Thr Ala Ser Asn Gly Thr Thr Gly Thr Ala Ser Xaa
    370                 375                 380
Thr Leu Asp Phe Lys Thr Gly Thr Tyr Asp Leu Gly Ile Asn Tyr Tyr
385                 390                 395                 400
Asp Met Tyr Gly Gly Lys Ser His Trp Thr Val Tyr Leu Asn Asp Arg
                405                 410                 415
Val Val Gly Gln Trp Gln Gly Asn Ser Glu Asp Val Leu Ser His Thr
            420                 425                 430
Pro Ser Ile Tyr Leu Asp Gly His Ser Ala Thr Arg Ile Thr Phe Arg
        435                 440                 445
Asp Val Lys Ile His Lys Gly Asp Arg Leu Lys Ile Val Gly Lys Pro
    450                 455                 460
Asp Gly Val Glu Pro Ala Pro Leu Asp Tyr Val Val Val Leu Pro Gln
465                 470                 475                 480
Gly Ile Val Asp
```

<210> 30655
<211> 125
<212> PRT
<213> A.fumigatus

<400> 30655

```
Ala Ala Tyr Lys Leu Pro Tyr Thr Ser Gln Met Met Ala Gln Leu Met
1               5                   10                  15
Gln Gln Asn Gln Lys Val Leu Leu Leu Ile Pro Cys Ser Ile Thr Glu
            20                  25                  30
Val Leu Leu Arg Ile Phe Asp His Glu Ser Ser Ser Gly Arg Arg Cys
        35                  40                  45
Lys Gly Lys Gln Arg Gly Lys Glu Asp Tyr Leu Ala Gly Val Val Lys
    50                  55                  60
Leu Leu Ser Ser Ala Trp Cys Thr Ile His His Ile Phe Leu Phe Arg
65                  70                  75                  80
Cys Leu Cys Lys Arg Arg Glu Tyr Val His Arg Cys Ile Ile Phe Tyr
                85                  90                  95
Ala Ile Ser Lys Leu Gly Ser Tyr Ser Pro Ile Thr Leu Gln Thr Phe
            100                 105                 110
Leu Met Gly Thr Ser Gln Leu Arg Asp Arg Thr Gln Leu
```

115 120 125

<210> 30656
<211> 151
<212> PRT
<213> A.fumigatus

<400> 30656
Cys Arg Ser Phe Leu Gln Gly Met Ser Val Leu Gly Ser Pro His Ser
1 5 10 15
Leu Arg Pro Gly Met Gln Gly Ala Phe Pro Ser Ser Ser Asp Arg Pro
20 25 30
Asn Val Leu Ile Met Ser Cys Leu Asn Thr Ser Arg Ile Phe Ala Ile
35 40 45
Leu Phe Arg Pro Pro Pro Ser Pro Pro Leu Ser Glu Asn Ser Ile Met
50 55 60
Tyr Leu Thr Gln Ser Leu Thr Leu Val Ser Leu Ala Thr Ala Thr Leu
65 70 75 80
Ala Phe Gln Ile Pro Asp Ser Lys Pro Pro Ser Thr Lys His Thr Asp
85 90 95
Asp Gln Thr Thr Ser Pro Val Val Arg Asp Ile Phe Gln Phe Pro Asp
100 105 110
Asn Gly Ser Phe Ile Asp Asn Ile Ala Val Arg Pro Asp Gly Thr Leu
115 120 125
Leu Leu Thr Arg Ile Asp Val Pro Glu Val Trp Ala Val Asp Pro Gln
130 135 140
Thr Gly Ser Gly Glu Leu Ala
145 150

<210> 30657
<211> 281
<212> PRT
<213> A.fumigatus

<400> 30657
Ser Phe Ala Gln Gln Ser Ser Asp Ser Asp Ser Asn Ser Asn Ser Asp
1 5 10 15
Ile Thr Ala Val Phe Gly Ile Thr Glu Val Glu His Asp Val Phe Ala
20 25 30
Val Val Ala Gly Lys Phe Ala Leu Glu Gly Phe Ala Ala Glu Gln Gly
35 40 45
Ser Phe Gly Val Trp Lys Leu Asp Phe Asn Asp Asn Ser Asn Tyr Asp
50 55 60
Val Leu Glu Leu Pro Trp Trp Gly Glu Gly Lys Phe Pro Leu Thr Arg
65 70 75 80
Asn Thr Pro Ser Glu Val Ser Lys Ile Val Asp Ile Pro Glu Ala Lys
85 90 95
Ala Leu Gly Ala Ser Thr Leu Tyr Lys Pro Arg His Asp Ala Arg Tyr
100 105 110
Leu Leu Ile Ser Asp Ser Pro Asp Gly Met Ile Trp Arg Val Asp Leu
115 120 125
Asp Ser Gly Glu Tyr Ala Val Ala Leu Gln Asp Glu Ser Met Leu Pro
130 135 140
Ala Pro Asp Ala Pro Pro Met Gly Val Asn Gly Ile His Val Val Gly
145 150 155 160
Glu Tyr Leu His Tyr Val Ser Val Thr Lys Lys Glu Tyr Arg Arg Val

```
                165                 170                 175
Lys Ile Asp Glu Asn Ala Asn Ala Ala Gly Pro Phe Glu Leu Ile Thr
            180                 185                 190
Ser Glu Ile Asp Pro Asp Ser Phe Asp Ile Thr Asp Asp Gly Thr Ala
        195                 200                 205
Tyr Phe Ala Thr Asn Pro Glu Asn Thr Ile Val Lys Tyr Thr Pro Glu
    210                 215                 220
Gly Glu Ile Val Asp Phe Ala Gly Gly Lys Asn Ser Thr Val Leu Pro
225                 230                 235                 240
Gly Pro Thr Cys Cys Ala Leu Asp Lys Lys Gly Gln Thr Leu Tyr Val
                245                 250                 255
Gly Thr Asn Gly Gly Leu Met Ala Pro Val Gly Gly Thr Tyr Lys Glu
            260                 265                 270
Pro Gly Lys Ile Ala Ala Ile Ser Leu
        275                 280
```

<210> 30658
<211> 109
<212> PRT
<213> A.fumigatus

<400> 30658

```
Ile His Pro Ala Tyr Ser Leu Phe Phe Ser Val His Leu His His His
1               5                   10                  15
His Ser Leu Lys Ile Pro Ser Cys Ile Ser Pro Arg Ala Ser His Trp
            20                  25                  30
Cys Pro Trp Arg Gln Pro Pro Ser His Ser Arg Ser Pro Thr Pro Asn
        35                  40                  45
His Pro Pro Leu Ser Thr Pro Thr Thr Lys Pro Pro Ala Pro Leu Ser
    50                  55                  60
Ala Thr Ser Ser Asn Ser Gln Thr Thr Ala Pro Ser Leu Thr Thr Ser
65                  70                  75                  80
Pro Ser Ala Gln Thr Ala Pro Ser Cys Ser Pro Ala Ser Thr Ser Pro
                85                  90                  95
Lys Phe Gly Pro Trp Thr Arg Lys Pro Ala Pro Gly Ser
            100                 105
```

<210> 30659
<211> 133
<212> PRT
<213> A.fumigatus

<400> 30659

```
Val Ala Arg Ile Ser Asn Arg Val Gly Ser Asp Ser Ala Tyr Gly Asp
1               5                   10                  15
Val Ala Gly Phe Leu Val Ala Asp Thr Thr Asn Lys Leu Leu Val Val
            20                  25                  30
Ser Phe Arg Gly Ser Arg Thr Ile Asp Thr Trp Leu Ala Asn Leu Asp
        35                  40                  45
Phe Gly Leu Asp Ser Ile Ser Asp Val Cys Ser Gly Cys Ala Val His
    50                  55                  60
Lys Gly Phe Trp Lys Ser Trp Glu Val Val Ala Asn Ala Leu Thr Thr
65                  70                  75                  80
Glu Leu Asn Ser Ala Leu Ala Thr Tyr Ser Gly Tyr Thr Val Val Phe
                85                  90                  95
Thr Gly His Ser Phe Gly Ala Ala Leu Ala Thr Leu Gly Ala Ala Thr
```

```
            100                 105                 110
Leu Arg Lys Ala Gly Ile Pro Val Glu Leu Val Ser His Pro Leu Ser
        115                 120                 125
Asn Gln Val Arg Ala
    130
```

<210> 30660
<211> 101
<212> PRT
<213> A.fumigatus

<400> 30660

```
Leu Lys Tyr Gly Tyr Gly Ser Pro Arg Val Gly Asn Lys Ala Leu Ala
1               5                   10                  15
Thr Phe Ile Thr Gly Gln Gly Ser Asn Tyr Arg Val Thr His Thr Asn
            20                  25                  30
Asp Ile Val Pro Arg Leu Pro Pro Arg Val Phe Gly Phe Ser His Ile
        35                  40                  45
Ser Pro Glu Tyr Trp Ile Thr Ser Gly Asp Asn Ala Pro Val Thr Thr
    50                  55                  60
Ser Asp Val Thr Val Val Gln Gly Ile Asp Ser Ser Gly Gly Asn Ala
65                  70                  75                  80
Gly Glu Asp Ser Thr Ser Ile Glu Ala His Asn Trp Tyr Ile Gly His
                85                  90                  95
Ile Asp Gly Cys Gln
            100
```

<210> 30661
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30661

```
Pro Thr Thr Gly Ala Glu His Leu Val Ala Thr Phe Lys Gly His Gly
1               5                   10                  15
Gly Asn Leu Ser Gly Tyr Leu Asp Ser Ile Ile Lys Ser Leu His Ile
            20                  25                  30
Leu Arg Gln Ile Tyr Leu Gln Pro Met Gln Lys Leu Ile Phe Ile Arg
        35                  40                  45
Trp Lys Leu Lys Gln Arg Thr Val Tyr Ile Met Pro Ile Ile
    50                  55                  60
```

<210> 30662
<211> 100
<212> PRT
<213> A.fumigatus

<400> 30662

```
Tyr Ser Trp Pro Gln Pro Ile Gly Phe Lys Phe Pro Leu Asp Leu Leu
1               5                   10                  15
Gln Arg Gln Ser Gly Thr Met Phe Thr Lys Lys Ser Ile Val Thr Leu
            20                  25                  30
Leu Gly Gly Leu Ser Val Ala Leu Ala Gln Thr Ser Ser Glu Gln Tyr
        35                  40                  45
Leu Ser Leu Ser Glu Ile Glu Ala Ala Gln Ala Thr Val Leu Pro His
    50                  55                  60
```

```
Ser Pro Val Ser Asn Val Lys Gly Leu Ala Phe Asp Arg Phe Val Asn
65                  70                  75                  80
Ile Trp Leu Glu Asn Thr Val Cys Asp Ser Leu Leu Asn Ser Asn Cys
                85                  90                  95
Gln Gly Leu Arg
            100

<210> 30663
<211> 508
<212> PRT
<213> A.fumigatus

<400> 30663
Arg Ser Val Leu Arg Thr Ser Phe Cys Val Leu Gly Leu Pro Ser Thr
1               5                  10                  15
Asp Leu Asp Gly Ala Glu Phe Gln Ser Leu His Ser Met Ile Phe Gln
            20                  25                  30
Leu Ser Ser Lys Val Ile Ile Gly Arg Arg Arg Asn Ala Val Ser Gln
        35                  40                  45
Ala Glu Glu Ala Lys Leu Gln Gln Thr Ser Leu Leu Val Ile Arg Gln
    50                  55                  60
Leu Leu Gln Gly Pro Gly Gly Glu Glu Ile Ala Glu Ser Gly Ile Asp
65                  70                  75                  80
Ser Phe Leu Val Asp Gln Leu Ser Ser Val Leu Asp Glu Gly Gly Ser
                85                  90                  95
Ile Glu Leu Gln Gly Ala Ile Ile Asp Thr Leu Leu Ser Ala Leu Lys
            100                 105                 110
Val Arg Phe Ala Gln Ala Tyr Leu Pro Pro Pro Pro Pro Arg Pro Lys
        115                 120                 125
His Gln Arg Ala Gln Ser Arg Glu Arg Leu Thr Ser Pro Ser Leu Leu
    130                 135                 140
Ser Phe Thr Ser Asp Lys Ala Asp Arg Gly Ala Leu Pro Pro Val Pro
145                 150                 155                 160
Pro Gln Pro Pro Ser Arg Leu Leu Glu Cys Leu Leu Lys Gly Ile Ser
                165                 170                 175
Ser Lys Ser Ser Arg Asp Ile Val Glu Lys Trp Thr Leu Leu Leu Cys
            180                 185                 190
Glu Val Leu Pro Leu Tyr Ser Gly Ser Leu Phe Gln Ile Leu Leu Met
        195                 200                 205
Leu Val Glu Cys Phe Cys Lys Glu Ile Gln Leu Ser Tyr Thr Asn Leu
    210                 215                 220
Gln Leu Ser Phe Arg Gln Thr Asp Gly Trp Pro Glu Asp Arg Ser Glu
225                 230                 235                 240
His Val Thr Ile Thr Leu Leu Thr Gly Leu Glu Thr Cys Ile Ala Ala
                245                 250                 255
Ala His Glu Arg Leu Leu Val Glu Glu Ala Asn Val Pro Ala Ala Lys
            260                 265                 270
Ser Pro Asp His Ala His Gly Phe Phe Gly Asn Met Val Ser Gly Val
        275                 280                 285
Phe Ala Thr Asp Ser Asn Gln Gly Arg Ser Thr Ala Ala Asn Asn Arg
    290                 295                 300
Leu Thr Val Leu Leu Cys Phe Gln Asp Ala Val Arg Leu Cys Phe Ser
305                 310                 315                 320
Ile Trp Ser Trp Gly Ala Val Glu Arg Ser Gly Pro Pro Gln Asp Pro
                325                 330                 335
Glu Ser Leu Ala Ser Phe Gln Tyr Thr Ser Leu Arg Met Arg Asn Arg
```

```
            340                 345                 350
Ser Arg Arg Ile Leu Glu His Leu Phe Thr Ala Glu Ala Leu Glu Cys
        355                 360                 365
Leu Glu Thr Met Val Glu Met Trp Ser Arg Ala Asp Pro Asp Thr Ser
    370                 375                 380
Pro Leu Ile Leu Ser Leu Leu His Thr Leu Asp Gly Ser Arg Pro Lys
385                 390                 395                 400
Ile Thr Ile Pro Ala Ile Phe Asn Ala Ile Tyr Thr Arg Thr Asn Pro
                405                 410                 415
Ala Ala Leu Glu Pro His Arg Lys Ser Ala Leu Thr Ser Asn Leu Thr
            420                 425                 430
Glu Ser Glu Leu Ala Gly Phe Leu Val Thr Tyr Ala Arg Ser Leu Asp
        435                 440                 445
Asp Asp Val Leu Asp Glu Ile Trp Thr Asp Cys Thr Thr Phe Leu Arg
    450                 455                 460
Asp Val Leu Ser Asn Pro Phe Pro His Arg Gln Ile Leu Pro Arg Leu
465                 470                 475                 480
Val Glu Phe Pro Ala Ile Leu Gly Ala Lys Met Glu Asn Thr Thr Phe
                485                 490                 495
Arg Gln Gln Ser Asn Asp Glu Lys Gly Pro Arg Gly
            500                 505
```

<210> 30664
<211> 89
<212> PRT
<213> A.fumigatus

<400> 30664

```
Gly Leu Tyr Arg Phe Leu Ile Ser Leu Arg Val Phe Arg Ile Val Ile
1               5                   10                  15
Leu Arg Leu Glu Asn Leu Leu Leu Arg Lys Glu Thr Leu Ser Glu Asn
            20                  25                  30
Glu Gly Asp Asn Val Val Ile Ser Thr Asp Asp Tyr Lys Glu Cys Asn
        35                  40                  45
Tyr Leu Leu Arg Thr Ile Tyr Asn Thr Leu Cys Ser Leu Ser Pro Asn
    50                  55                  60
Gly Trp Met Ser Leu Leu Thr Gln Thr Leu Asn Pro Val Asp Lys Gln
65                  70                  75                  80
Lys Asp Gly Ala Ser Glu Gly Gln Phe
                85
```

<210> 30665
<211> 217
<212> PRT
<213> A.fumigatus

<400> 30665

```
Arg Val Ile Ala Thr Val Thr Tyr Arg Ser Ala Arg Glu Trp Glu Lys
1               5                   10                  15
Arg Phe Gly Gly Lys Arg Ala Asp Ala Ser Lys Gln Pro Ala Leu Cys
            20                  25                  30
Pro Asp Phe Leu Ile Glu Thr Tyr Leu Asp His Ala Gly Glu Lys Phe
        35                  40                  45
Cys Leu Glu Tyr Asp Pro Asn Ser Leu Leu Tyr Val Ser Lys Ala Met
    50                  55                  60
Asp Leu Phe Asp Leu Ser Arg Ser Gln Arg Ala Glu Thr Glu Lys Arg
```

```
65                  70                  75                  80
Arg Arg Glu Phe Glu Ala Arg Ile Ala Gln Gly Gly Lys Thr Leu Arg
                85                  90                  95
Tyr Asn Asp Ala Ser Cys Ser Leu Thr Leu Pro Glu Lys Pro Tyr Glu
            100                 105                 110
Glu Gln Pro Ser Thr Thr Asp Ser Gly Ser Ser Ala Asp Glu Ala Val
        115                 120                 125
Ala Thr Gly Lys Gln Pro Asp Thr Pro Pro Ala Asp Leu Val Ala Gly
    130                 135                 140
Leu Ala Pro Leu Lys Asn His Pro Val Leu Val Met Gly Val Ala Ser
145                 150                 155                 160
Asp Ile Leu Phe Pro Ala Trp Gln Gln Arg Glu Ile Ala Glu Thr Leu
                165                 170                 175
Arg Ala Ala Gly Asn Lys Asn Val Glu His Ile Glu Leu Gly Glu Asp
            180                 185                 190
Ile Ser Leu Phe Gly His Asp Thr Phe Leu Leu Asp Leu Lys Asn Ile
        195                 200                 205
Gly Gly Ala Val Glu Arg Phe Leu Arg
    210                 215
```

<210> 30666
<211> 599
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (535),(548),(568)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 30666
Thr Thr Ala Pro Thr Gly Gly Thr Ala Pro Pro Gly Gly Ala Ala Glu
1               5                   10                  15
Ser Pro Ile Thr Thr Val Pro Ser Gly Gly Thr Val Pro Thr Gly Gly
            20                  25                  30
Ala Pro His Ser Pro Ile Thr Thr Ala Pro Thr Gly Gly Thr Ala Pro
        35                  40                  45
Pro Gly Gly Ala Ala Glu Ser Pro Ile Thr Thr Met Pro Pro Gly Gly
    50                  55                  60
Ala Thr His Ser Pro Ile Thr Thr Ala Pro Thr Gly Gly Ala Ala Thr
65                  70                  75                  80
Gly Ser Arg Pro Gly Thr Ser Ser Ala Gly Gly Ile Ala Ser Thr Val
                85                  90                  95
Pro Pro Val Ser Ser Pro Thr Gly Gly Gly Val Pro Thr Ser Glu Gly
            100                 105                 110
Pro Gly Phe Ser Pro Ala Gly Gly Gly Val Pro Ala Ser Ala Ser Asn
        115                 120                 125
Pro Phe Thr Ala Phe Val Pro Pro Ser Glu Ser Pro Val Ala Ser Lys
    130                 135                 140
Val Gly Thr Gln Ala Cys Pro Pro Cys Pro Thr Pro Ala Ala Pro Thr
145                 150                 155                 160
Cys Ala Pro Cys Pro Ala Pro Gly Thr Ser Thr Thr Thr Phe Thr Val
                165                 170                 175
Thr Ile Thr Glu Thr Val Cys Thr Gly Gln Val Thr Gln Gly Gly Gly
            180                 185                 190
Gly Pro Thr Ala Ser Pro Gly Val Pro Ala Ile Ser Pro Leu Phe Ser
```

```
        195                 200                 205
Ala Thr Gly Pro Gly Ala Leu Thr Ser Thr Ala Ala Gly Pro Gly Gly
    210                 215                 220
Pro Gln Gly Pro Thr Ala Thr Glu Thr His Leu Ser Ile Ala Pro His
225                 230                 235                 240
Ala Pro Gly Gly Ala Ala Gly Ala Thr Ala Gly Pro Ser Thr Gln Pro
                245                 250                 255
Thr Thr Ser Ala Thr Gly Val Pro Ser Val Pro Gln Ile Pro Gly Gly
            260                 265                 270
Gly Gly Gly Gly Ala Ala Ala Gly Pro Ala Thr Ser Leu Pro Val Thr
        275                 280                 285
Ser Ala Thr Gly Val Pro Asn Ile Pro His Gly Pro Gly Gly Gly Pro
    290                 295                 300
Ser Gly Phe Pro Asn Thr Thr Ser Ser Gln Val Val Ala Thr Thr Thr
305                 310                 315                 320
Glu Thr Ile Gly Ser Thr Val Pro Leu Ser Thr His Gly Gly Gly Ala
                325                 330                 335
Ala Thr Ser Gly Ala Ala Gln Thr Ser Arg Leu Ser Val Thr Thr Gly
            340                 345                 350
Ile Ser Phe Ala Asn Val Thr Arg Thr Pro Ser Gly Gly Gln Thr Gly
        355                 360                 365
Leu Pro Ser Val Thr Leu Ile Pro Ala Ile Pro Thr Gly Pro Gly Ile
    370                 375                 380
Ser Asn Val Thr Gly Thr Val Gly Gly Gly Val Ser Val Ser Thr Pro
385                 390                 395                 400
Thr Ser Ala Thr Ile Ser Ala Thr Pro Thr Arg Pro Gly Gly Thr Ala
                405                 410                 415
Pro Pro Gly Gly Gly Val Pro Ile Ser Thr Pro Ile Ile Ala Thr Ser
            420                 425                 430
Leu Ala Thr Pro Thr Arg Pro Gly Ala Val Ser Thr Pro Ile Ile Ala
        435                 440                 445
Thr Ser Phe Ser Thr Pro Ser Gly Pro Glu Val Ala Pro Pro Ala Gly
    450                 455                 460
Thr Val Val Pro Gly Thr Ala Ala Thr Pro Gly Gly Ile Val Ala Pro
465                 470                 475                 480
Gly Gly Gly Val Ala Gly Gly Gly Thr Ala Ala Pro Arg Glu Gly Val
                485                 490                 495
Ala Ser Arg Gly Ala Pro Ala Pro Gly Gly Gly Val Pro Thr Val Val
            500                 505                 510
Ile Ser Gly Gly Arg Ser Thr Ala Thr Ser Thr Thr Thr Ile Gln Val
        515                 520                 525
Gln Thr Leu Ser Val Phe Xaa Ser Gly Leu Pro Phe Pro Gln Ser Gln
    530                 535                 540
Gly Asn Thr Xaa Thr Arg Pro Val Thr Thr Ser Thr Val Thr Gly Val
545                 550                 555                 560
Arg Pro Pro Gln Ser Thr Pro Xaa Ile Asp Pro Lys Lys Arg Thr Val
                565                 570                 575
Ala Glu Lys Thr Asp Ile Gly Arg Pro Asp Lys Leu Lys Ala Asn Pro
            580                 585                 590
Ile Val Phe Arg Arg Arg Thr
        595
```

<210> 30667
<211> 70
<212> PRT
<213> A.fumigatus

<400> 30667
Ile Trp Ala Gly Glu Val Pro Met Leu Arg Thr Thr Gly Phe Asp Leu
1 5 10 15
Ile Cys Val Ser Val Phe Phe Phe Pro Ile Pro Leu Leu Arg Glu Leu
20 25 30
Phe Trp His Val Arg Tyr Val Asp Ser Asn Thr Val Val Thr Glu Glu
35 40 45
Glu Met Gln Lys Tyr His Ile Ala Arg Thr Ala Pro Phe Phe Leu Tyr
50 55 60
Pro Thr Ala Arg Ala Leu
65 70

<210> 30668
<211> 261
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (37),(57),(70)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30668
Asp Gly His Phe Gln Val Arg Arg Arg Asn Thr Ile Gly Phe Ala Leu
1 5 10 15
Ser Leu Ser Gly Arg Pro Met Ser Val Phe Ser Ala Thr Val Arg Phe
20 25 30
Phe Gly Ser Ile Xaa Gly Val Asp Cys Gly Gly Leu Thr Pro Val Thr
35 40 45
Val Leu Val Val Thr Gly Arg Val Xaa Val Phe Pro Trp Asp Cys Gly
50 55 60
Lys Gly Arg Pro Leu Xaa Lys Thr Asp Asn Val Trp Thr Trp Met Val
65 70 75 80
Val Val Glu Val Ala Val Asp Leu Pro Pro Asp Ile Thr Thr Val Gly
85 90 95
Thr Pro Pro Pro Gly Ala Gly Ala Pro Arg Asp Ala Thr Pro Ser Arg
100 105 110
Gly Ala Ala Val Pro Pro Pro Ala Thr Pro Pro Pro Gly Ala Thr Ile
115 120 125
Pro Pro Gly Val Ala Ala Val Pro Gly Thr Thr Val Pro Ala Gly Gly
130 135 140
Ala Thr Ser Gly Pro Leu Gly Val Glu Lys Leu Val Ala Ile Ile Gly
145 150 155 160
Val Glu Thr Ala Pro Gly Leu Val Gly Val Ala Arg Leu Val Ala Ile
165 170 175
Ile Gly Val Glu Met Gly Thr Pro Pro Pro Gly Gly Ala Val Pro Pro
180 185 190
Gly Leu Val Gly Val Ala Glu Ile Val Ala Leu Val Gly Val Glu Thr
195 200 205
Asp Thr Pro Pro Pro Thr Val Pro Val Thr Leu Glu Ile Pro Gly Pro
210 215 220
Val Gly Met Ala Gly Ile Lys Val Thr Leu Gly Asn Pro Val Cys Pro
225 230 235 240
Pro Leu Gly Val Arg Val Thr Phe Ala Lys Leu Ile Pro Val Val Thr
245 250 255

Glu Ser Leu Glu Val
260

<210> 30669
<211> 531
<212> PRT
<213> A.fumigatus

<400> 30669
Leu Arg Gly Gly Arg Glu Asp His Ile Gln Ser Ser Pro Asp Ser Ala
1 5 10 15
Ser Lys Gly Arg Arg Arg His Ile Thr Gln Glu Gly Ala Ile Gly Ser
20 25 30
Ala Ile Cys Gln Leu Pro Gln His Gly Gly Asp Ala Leu Pro Gly Ser
35 40 45
Ala Val Val Arg Ser Ser Ser Arg Trp Tyr Asn Tyr Ala Gly Gln Gly
50 55 60
Thr Met Arg Pro Ser Leu Asp Val Leu Arg Gly Leu Leu Val Gln Leu
65 70 75 80
Val Phe Asp Asn Asn Met Leu Arg Ala Ala Ala Met Lys Ala Thr Ala
85 90 95
Asp Thr Val Phe Arg Leu Ser Gly Leu Gly Ala Gly Gly Thr Ser Pro
100 105 110
Ile Leu Val Gly Pro Ser Ile Pro Val Gln Pro Asp Ala Gly Ala His
115 120 125
Asp Gln Gly Thr Pro Arg Glu Ala Trp Gly Leu Lys Ser Gly Leu Tyr
130 135 140
Thr Pro Arg Gln Leu Val Glu Gly Phe Ala Pro Leu Leu Asp Thr Val
145 150 155 160
Val Phe Arg Leu Gly Pro Asp Pro Pro Asn Ala Arg Pro Ala Arg Ala
165 170 175
Gln Leu Leu Asp Asn Leu Ala Ala Asn Leu Asp Ile Asn Thr Arg Glu
180 185 190
Ala Thr Leu Arg Phe Pro Asp Thr Asp Leu Asp Ala Ser Arg Gln Glu
195 200 205
Ile Ala Glu Gln Ala Arg Arg Ile Gly Gln Thr Leu Val Gln Tyr Ala
210 215 220
Arg Asn His Thr Gly Gly Pro Phe Asn Pro Asp Leu Ser Leu Arg Ser
225 230 235 240
Pro Cys Glu Gly His Leu Leu Ile Pro Pro Asn Val Asp Leu Met Phe
245 250 255
Gly Arg Arg Ser Gln Ser His Leu Met Gln Leu Phe Asn Glu Tyr Met
260 265 270
His Gln Met Val Leu Leu Arg Asp Ala Leu Leu Pro Phe Gln Asn Tyr
275 280 285
Glu Asp Val Ile Ile Pro Val Asp Gly Arg Ala Ala Arg Gly Ile Arg
290 295 300
His Leu Glu Pro Ser Arg Ser Glu Phe Leu Thr His Leu Leu Thr Lys
305 310 315 320
Glu Val Thr Gln Ser Ala Ile Ile Lys His Ala Gln Ala Leu Leu Ala
325 330 335
Pro Gly Leu Leu Ser His Ser Ser Leu Thr Pro Ser Pro Arg Ala Gly
340 345 350
Pro Gly Tyr Gly Phe Gln Tyr Ala His Gly Leu Val Leu Pro Ala Phe
355 360 365
Leu Ala Gly Gly Pro Thr Pro Phe His Leu Leu Gln Tyr Ile Pro Ala

```
    370                 375                 380
Lys Leu Val Asp Asp Ala Pro Lys Gly Val Ile Phe Asp Tyr Arg Ile
385                 390                 395                 400
Gln Asp Tyr Tyr Leu Ala Pro Arg Val Asp Ile Pro Ala Gly Thr Glu
                405                 410                 415
Lys Thr Phe Pro Gly Leu Leu Ser Glu Arg Tyr Pro Trp Pro Met Ala
            420                 425                 430
Gly Ala Pro Gln His Ser Ala Tyr Lys Ala Pro Thr Leu Glu Ser Phe
        435                 440                 445
His Arg His Pro Thr Arg Thr Arg His Pro Met Arg Ser Gly Ser Leu
    450                 455                 460
Ser Cys Asn Ser Ser Ser Thr Thr Ala Ser Ala Ser Arg Leu Thr Trp
465                 470                 475                 480
Asp Arg Leu Arg Val Ala Thr Asp Thr Pro Thr Trp Arg Pro Val Pro
                485                 490                 495
Ala Pro Pro Arg Arg His Pro Thr Val Cys Thr Ala Arg Arg Pro Pro
            500                 505                 510
Trp Ser Thr Thr Pro His Pro Phe Ser Trp Arg Arg Ser Thr Lys Lys
        515                 520                 525
Thr Ala Ser
    530
```

<210> 30670
<211> 235
<212> PRT
<213> A.fumigatus

<400> 30670

```
Asp Phe Gln Arg Ser Arg Ser Thr Ser Ala Asn Gln Glu Ser His Ile
1               5                   10                  15
Val Ala Ala Lys Cys Leu Gln Asp Thr Ala Val Met Arg Asn Phe Trp
            20                  25                  30
His Phe Ser Gln Gln Leu Tyr Ala Asp Leu Pro Pro Ile Asp Ala Tyr
        35                  40                  45
Leu Ala Leu His Arg Asp Tyr Val Ala Pro Ile Val Gly Pro Val Leu
    50                  55                  60
His Gly Thr Leu Thr Thr Thr Glu Ala Leu Ala Leu Trp Thr Gly Ser
65                  70                  75                  80
Thr Pro Trp Val Ala Lys Ile Gln Ala Leu Arg Gln Gly Lys Glu Val
                85                  90                  95
Ala Glu Arg Leu Phe Ser Tyr Thr Lys Ser Leu Cys Ala Thr Gln Gln
            100                 105                 110
Ser Thr Leu Ser Ser Leu Thr Ala Asp Glu Lys Gln Ile Ser Ala His
        115                 120                 125
Leu Thr Thr Glu Ile Leu Arg Arg Tyr Thr Ala Asp Thr Leu Gly Gln
    130                 135                 140
Pro Thr Pro Phe Thr Asp Gly Val Asp Thr Ala Ala Gly Gly Ala Ser
145                 150                 155                 160
Leu Ala Gly Gly Ser Ala Lys Asn Ile Pro Gln Gly Ile Thr Asn Asn
                165                 170                 175
Leu Ser Leu Ala Ala Ser Ala Ser Phe Gly Pro Ala Glu Ser Leu Phe
            180                 185                 190
Asp Arg Ile Asn Tyr Phe Glu Cys Phe Asn Thr Ala Leu Arg Met Ile
        195                 200                 205
Gln Thr Ala Gln Ala Gln Arg Met Ile Lys Ala Leu Asp Val Ile Ala
    210                 215                 220
```

```
Gln Lys Leu Arg Asp Trp Glu Leu Leu Tyr Arg
225                 230                 235

<210> 30671
<211> 77
<212> PRT
<213> A.fumigatus

<400> 30671
Ser Ser Ile Pro Leu Gly Ser Ile Ala Pro Gln His Trp Glu His Ser
1               5                   10                  15
Ser Asp Asp Asn Asp Ile Ser Thr Cys Thr Phe Cys Val Leu Leu Pro
            20                  25                  30
Trp Asn Lys Trp Gln His Trp Gln Cys Ser Met Met Gly Tyr Ser Leu
        35                  40                  45
Leu Leu Thr Asn Leu Leu Asp Pro Tyr Thr Leu Phe Val Pro Leu Gln
    50                  55                  60
Arg Leu Lys Ala Val Leu Gly Lys Gly Lys His Thr Pro
65                  70                  75

<210> 30672
<211> 346
<212> PRT
<213> A.fumigatus

<400> 30672
Gln Leu Asp Gln Met Leu Arg Asn Asp Glu Val Gln Arg His Thr Leu
1               5                   10                  15
Leu Ser Glu Met Ile Thr Arg Val Ser Gly Phe Ser Ala Trp Leu Leu
            20                  25                  30
Pro Ser Phe Ala Trp Ser Gly Gly Gln Ser Pro Pro Arg Leu Ala Pro
        35                  40                  45
Val Trp Pro Ser Thr Ala Arg Arg Arg Val Ile Lys Met Thr Val Leu
    50                  55                  60
Val Ala Leu Phe Cys Leu Val Thr Trp Thr Leu Cys Thr Arg Ile Pro
65                  70                  75                  80
Gln Tyr Ser Thr Gln Gly Thr Gln Gln Pro Gln Gln Pro Glu Lys Thr
                85                  90                  95
Pro His Pro His Pro Gln Pro Glu Asp Ala Phe Pro Pro Thr His Ala
            100                 105                 110
Thr Asp Leu Lys Ile His Asp Pro Ser Ile Ile His Val Asp Gly Thr
        115                 120                 125
Tyr Tyr Ser Tyr Ser Val Gly Arg His Ile Arg Ile His Gln Ala Pro
    130                 135                 140
Ser Leu Asp Gly Pro Trp Glu Arg Thr Gly Ala Val Leu Asn Ala Asp
145                 150                 155                 160
Ser Val Ile Pro Lys Gly Asp Arg Lys Ala Pro Trp Ala Pro Gln Thr
                165                 170                 175
Val His His Asn Asp Thr Tyr Tyr Cys Phe Tyr Ala Val Ser Asn Ser
            180                 185                 190
Gly Cys Arg Asp Ser Ala Ile Gly Val Ala Thr Ser Lys Ser Pro Gly
        195                 200                 205
Pro Gly Gly Trp Thr Asp His Gly Leu Leu Val Gln Ser Gly Thr Gly
    210                 215                 220
Lys Gly Ser Asp Glu His Pro Phe Thr Ser Ser Asn Thr Ile Asp Pro
225                 230                 235                 240
```

```
Ser Val Phe Val Gly Glu Asp Gly His Gly Tyr Leu Met Phe Gly Ser
                245                 250                 255
Phe Trp Ser Gly Ile Trp Gln Val Pro Leu Asp Glu Ser Leu Leu Ser
            260                 265                 270
Val Ala Gly Asp Thr Ser Ser Glu Ala Arg Gln Leu Val Tyr Met Glu
        275                 280                 285
Lys Ala Pro Leu Pro Ala Ser Lys His Pro Asn Pro Leu Cys Arg Glu
    290                 295                 300
Pro Ser Gly Ala Arg Pro Ile Glu Gly Ser Phe Leu Ser Tyr His Glu
305                 310                 315                 320
Pro Trp Tyr Tyr Leu Trp Phe Ser Tyr Gly Lys Cys Cys Lys Phe Asp
                325                 330                 335
Thr Lys Asn Leu Pro Pro Pro Gly Arg Glu
            340                 345
```

<210> 30673
<211> 216
<212> PRT
<213> A.fumigatus

```
<400> 30673
His Asp Ile Trp Gly Leu Trp Pro His Phe Arg Ser Ser Trp Gln Asp
1               5                   10                  15
Ile Gly Ile Ala Ser Cys Cys Arg Ser Lys Asn Ser Gly Ile Met Arg
            20                  25                  30
Arg Ala Pro Arg Gly His Ser Ala Arg Gly Arg Val Ser Gly Gly Gln
        35                  40                  45
Pro Lys Ala Arg Glu Glu Gly Asp Glu Ile Pro Glu Val Tyr Gln Glu
    50                  55                  60
Met Leu Ala Glu Ala Glu Leu Arg Asn Pro Asn Val Ser Glu Ala Asp
65                  70                  75                  80
Arg Pro Ile Lys Arg Arg Lys Val Gly Ala Gln Gly Ala Thr Thr Leu
                85                  90                  95
Asn Glu Val Ser Ile Pro Gln Val Pro Leu Ser Met Glu Asp Ser Arg
            100                 105                 110
Gln Val Gln Thr Asp Tyr Asp Glu Pro Thr Ser Glu Glu Ser Asp Met
        115                 120                 125
Glu Trp Glu Glu Val Asp Leu Gln Gln Val Pro Ala Gln Ser Thr Gln
    130                 135                 140
Ile Gly Pro Val Thr Glu Val Asp Asn Glu Pro Leu Gln Ile Thr Leu
145                 150                 155                 160
Glu Gly His Glu Gly Lys Arg Arg Lys Val Ile Ser Arg Gln Lys Ser
                165                 170                 175
Leu Thr Ala Ala Glu Lys Lys Leu Arg Leu Asp Ile His Lys Val His
            180                 185                 190
Val Leu Cys Leu Leu Arg His Val Gln Ile Arg Asn Leu Trp Cys Asn
        195                 200                 205
Asp Asp Glu Leu Gln Val Arg Asn
    210                 215
```

<210> 30674
<211> 115
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (61)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30674
His Leu Lys Gly Pro Gly Phe Thr Ala Arg Ala Ser Pro Tyr Pro Val
1 5 10 15
Phe Trp Val Glu Ala Phe Asn Glu Ala Val Gln Lys Trp Val Pro Val
20 25 30
Asp Pro Leu Val Thr Lys Ser Ile Ala Lys Pro Ser Lys Phe Glu Pro
35 40 45
Pro Phe Ser Asp Pro Ser Asn Ser Met Val Tyr Val Xaa Gly Phe Glu
50 55 60
Glu Asp Ala Ser Ala Arg Asp Val Thr Arg Arg Tyr Ala Lys Ala Phe
65 70 75 80
Asn Ala Lys Thr Arg Lys Ile Arg Val Glu Ser Thr Lys Asp Gly Glu
85 90 95
Arg Trp Trp Ala Arg Lys Lys Leu Phe Tyr Glu Lys Thr Ile Leu Gly
100 105 110
Arg Pro Arg
115

<210> 30675
<211> 151
<212> PRT
<213> A.fumigatus

<400> 30675
Glu Thr Ile Met Phe Asp Ala Glu Val Phe Leu Ser Lys Glu Asp Phe
1 5 10 15
Cys Lys Gln Ala Arg Thr Met Gln Gly Ser Arg Asp Phe Gly Ala Gln
20 25 30
Leu Phe Cys Ala Leu Leu Arg Ser Ala Ala Val Glu Ala Arg Leu Val
35 40 45
Cys Ser Leu Gln Pro Leu Pro Phe Ser Gly Thr Thr Lys Ser Met Thr
50 55 60
Pro Asn Lys Arg Asp Ser Gln Tyr Ile Val Ile Ser Ser Asp Asp His
65 70 75 80
Glu Thr Ser Ala Asp Asp Arg Gln Met Pro Gly Leu Ser Pro Thr Pro
85 90 95
Ala Ser Arg Ser Arg Arg Leu Gly Arg Pro Gln Phe Thr Pro Ala Arg
100 105 110
Ser Gln Lys Thr Ser Ile Pro Gly Asn Met Ser Thr Ser Ile Pro Leu
115 120 125
Ala Tyr Ser Leu Thr Ser Gln Arg Pro Trp Ile His Arg Ser Ser Leu
130 135 140
Ala Leu Pro Gly Val Leu Gly
145 150

<210> 30676
<211> 60
<212> PRT
<213> A.fumigatus

<400> 30676
Gln Lys Asp Phe Arg Val Glu His Asn Ser Phe Leu Gln Gly Cys Glu

```
1               5                   10                  15
Lys Gly Asp Tyr Cys Val Glu Leu Cys Thr His Thr Ala Phe Cys Phe
            20                  25                  30
Asn Phe Ser Gly Ser Ser Thr Gln Cys Ala Arg Phe Lys Pro Gly Leu
        35                  40                  45
Val Thr Leu Asn Leu Leu Leu Lys Ala Ser Leu Ala
    50                  55                  60

<210> 30677
<211> 694
<212> PRT
<213> A.fumigatus

<400> 30677
Trp Leu Leu Tyr Leu Ile Cys Glu Asp Asp Pro Glu Ile Val Ala Leu
1               5                   10                  15
Ala Thr Lys Ile Leu Ala Arg Leu Ile Val Ile His Gly Asp Val Tyr
            20                  25                  30
Ser Lys Lys Phe Ser Glu Lys Thr Gly Gly Tyr Ile Ile Met Arg His
        35                  40                  45
Arg Leu Arg Ser Trp Trp Lys Val Pro Ala Ile Trp Cys Ile Cys Leu
    50                  55                  60
Ser Ile Leu Leu Gly Leu Asp Val Gly Gly Met Lys Leu Asp Gln Pro
65                  70                  75                  80
Phe Ser Arg Thr Gly Leu Ile Glu Ile Leu Ser Ser Asn Ser Gln Pro
                85                  90                  95
Arg Val Ala Phe Pro Glu Ile Leu Pro Val Leu Met Glu Met Met Gln
            100                 105                 110
Leu Gly Leu Gln Ser Val Ile Ser Gly Asp Glu Leu Ser Ser Gly Val
        115                 120                 125
His Gly Lys Ser Leu Gln Lys Ser Glu Val Arg Leu Glu Ser Pro Pro
    130                 135                 140
Ala Ser Leu Thr Ile Arg Val Thr Glu Leu Thr Lys Gln Ile Ser Leu
145                 150                 155                 160
Leu Asp Ala Val Val Gly Leu Phe Ala Asp Leu His Gln Asn Ser Thr
                165                 170                 175
Asp Phe Arg Asp Phe Ala Ala Gln Ser Asp Tyr Val Gln Trp Leu Leu
            180                 185                 190
Tyr Val Thr Phe Pro Val Val Val Gly Ser Asp Ile Pro Ser Thr Asp
        195                 200                 205
Phe Glu Leu Lys Ser Arg Ala Ala Lys Thr Asn Ser His Asp His Thr
    210                 215                 220
Leu Pro Val Arg Pro Arg Ser Ser Gly Thr Ala Gly Leu Arg Thr Thr
225                 230                 235                 240
Thr Val Glu Gly Ser Ser Ser Arg Glu Arg Gln Ala Gly Pro Leu Arg
                245                 250                 255
Arg Gly Ser Ser Phe Ile Leu Val Ser Ser Asp Arg Thr Lys Phe Ser
            260                 265                 270
Pro Ser Phe Ala Arg Ile His Lys Ala Phe Ile Pro Phe Gly Ser Pro
        275                 280                 285
Pro Asp Met Thr Ala Thr Asp His Pro Leu Val Gln Ala Ile Leu Ser
    290                 295                 300
Leu Val Leu Ser Val Phe Cys Asp Gln Leu Leu Glu Arg Lys Asp Phe
305                 310                 315                 320
Ala Gly Leu Gly Leu Tyr Leu Lys Thr Pro Thr Ser Thr Leu Glu Gln
                325                 330                 335
```

```
Gln Ser Tyr Phe Asn Ser Trp Ile Leu Arg Ser Leu Leu Thr Arg Leu
            340                 345                 350
Arg Asp Val Thr Ile Ser Lys Pro Gln Val Leu Leu Glu Pro Arg Ala
        355                 360                 365
Leu Ser Asn Met Gly Arg Phe Ala Thr His Ile Gly Glu Ala Val Tyr
    370                 375                 380
Glu Gly Trp Phe Ile Asp Gly Ala Thr His Ala Leu Glu Phe Ala Gly
385                 390                 395                 400
Ala Ile Leu Glu Tyr Leu Gln Gln Ser Asn Val Ser Ser Leu Lys Ser
                405                 410                 415
Val Arg Leu Cys Ser Gln Ala Val Thr Thr Ile Arg Ser Thr Leu Phe
            420                 425                 430
Arg Val Val Leu Leu Lys Leu Ser Glu Val Asp Asp Arg Glu Ala Cys
        435                 440                 445
Glu Phe Leu Ser Arg Leu Ser Tyr Trp Gln Val Val Leu Leu Ser Glu
    450                 455                 460
Gly Glu Val Gln Ser Asp Tyr Leu Arg Leu Leu Cys Tyr Leu Leu Tyr
465                 470                 475                 480
Thr Lys Leu Ile Ser Gln Asp Trp Asn Val Arg Leu Ala Ala Ala Gly
                485                 490                 495
Leu Trp Arg Val Ile Leu Val Gln Lys Pro Ala Glu Met Ser Gly Ile
            500                 505                 510
Leu Ser Gln Ala Ala Ile Pro Leu Gln Lys Arg Leu Ser Asp Gly Phe
        515                 520                 525
Glu Ala Leu Val Gly Met Glu Asp Lys Ala Phe Leu Gln Trp Val Asp
    530                 535                 540
Gly His Gln Asp Asp Leu Asn Ala Met Phe Leu Gly Leu Leu Ser Arg
545                 550                 555                 560
Ser Trp Glu Thr Phe Val Gln Glu Glu Ser Ser Asn Ile Asp Ser Thr
                565                 570                 575
Thr Arg Ala Arg Ala Ser Lys Arg Gln Glu Lys Leu Arg His Trp Asn
            580                 585                 590
Gln Leu Glu Arg Leu Ser Glu Glu Val Thr Arg Lys His Glu Thr Thr
        595                 600                 605
Phe Pro His Trp Val Ser Asn Ile Ser Ala Ser Glu Phe Leu Lys His
    610                 615                 620
Gln Arg Ala Leu Gln Asp Gln Gln Asp Asn Ser Val Phe Met Trp Thr
625                 630                 635                 640
Ala Phe Ser His Met Thr Met Asp Leu Lys Arg Phe Gly Gly Val Leu
                645                 650                 655
Ala Glu Asp Lys Asp Arg Lys Trp Arg Leu Asp Gln Thr Glu Gly Arg
            660                 665                 670
Ser Arg Met Arg Leu Arg Met Val Pro Asp Glu Val Pro Pro Thr Gly
        675                 680                 685
Gly Arg Lys Ser Ala Ile
    690
```

<210> 30678
<211> 217
<212> PRT
<213> A.fumigatus

<400> 30678

```
Ser Arg Ile Ala Asn Asn Pro Met Pro Asp Leu Arg Pro Leu Pro Thr
1               5                   10                  15
Val Gln Gly Arg Ala Pro Gly Val Ser Lys Arg Cys Pro Ala Asn Asp
```

```
            20                  25                  30
Ala Gly Lys Gln Gly Asn Leu Thr Phe Phe Leu Thr Arg Gly Ala Met
        35                  40                  45
Gly Met Thr Ala Ile Gly Ile Ala Leu Trp Lys Tyr Cys Met Arg Tyr
    50                  55                  60
Val Pro Thr Asn Pro Asn Phe Phe Asn Arg Asp Arg Phe Val Leu Ser
65                  70                  75                  80
Asn Gly His Thr Cys Leu Phe Gln Tyr Thr Phe Leu His Leu Thr Gly
                85                  90                  95
Tyr Lys Ala Met Thr Met Asp Gln Leu Lys Ser Tyr His Ser Glu Arg
            100                 105                 110
Glu Asp Ser Leu Cys Pro Gly His Pro Glu Ile Glu Ile Asp Gly Val
        115                 120                 125
Glu Val Thr Thr Gly Pro Leu Gly Gln Gly Val Ala Asn Ala Val Gly
    130                 135                 140
Leu Ala Met Ala Thr Lys His Leu Gly Ala Val Tyr Asn Arg Pro Gly
145                 150                 155                 160
Phe Ser Leu Val Asp Asn Thr Thr Trp Cys Met Val Gly Asp Ala Cys
                165                 170                 175
Leu Gln Glu Gly Val Ala Leu Glu Ser Ile Gln Leu Ala Gly His Trp
            180                 185                 190
Arg Leu Asn Asn Leu Val Ile Ile Tyr Asp Asn Asn Gln Val Ala Leu
        195                 200                 205
Ala Pro Tyr Phe Pro Ile Trp Pro Tyr
    210                 215
```

<210> 30679
<211> 233
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (228),(229)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30679

```
Arg Ile Thr Ala Ala Leu Met Arg Ala Arg Ser Ser Lys Glu Lys Pro
1               5                   10                  15
Thr Phe Ile Asn Val Arg Thr Val Ile Gly Val Glu Ser Lys Phe Ala
            20                  25                  30
Gly Asp Ala Lys Ala His Gly Ala Ala Phe Gly Glu Asp Glu Val Ala
        35                  40                  45
Asn Ile Lys Arg Lys Leu Gly Leu Asn Pro Asp Glu His Phe Ala Val
    50                  55                  60
Pro Asp Glu Val Tyr Gln Phe Phe Ser Asp Ala Gly Gly Arg Gly Arg
65                  70                  75                  80
Ala Leu Glu Glu Gly Trp Asn Gln Leu Leu Leu Asn Tyr Ser Thr Glu
                85                  90                  95
His Pro Glu Met Tyr Glu Glu Phe Arg Leu Arg Met Leu Gly Arg Met
            100                 105                 110
Thr Gln Asp Trp Thr Lys Leu Ile Pro Ser Lys Glu Glu Phe Pro Ala
        115                 120                 125
Ser Pro Thr Ala Ser Arg Lys Ser Ala Gly Leu Cys Cys Asn Pro Leu
    130                 135                 140
Ala Ala Lys Leu Glu Asn Ile Met Val Gly Thr Ala Asp Leu Thr Pro
```

```
145                 150                 155                 160
Ser Val Asn Met Ala Trp Lys Gly Lys Val Asp Phe Gln His Val Ser
                165                 170                 175
His Ser Pro Val Pro Arg Asn Ile His Pro Phe Thr Asn Gln Asn Cys
            180                 185                 190
Phe Val Gln Pro Glu Leu Lys Thr Thr Cys Gly Leu Asn Gly Asn Tyr
        195                 200                 205
Thr Gly Arg Tyr Ile Val Phe Thr Thr Gly Leu Glu Gly Ser Asp Gly
    210                 215                 220
Gly Val Tyr Xaa Xaa Arg Gly Phe His
225                 230
```

<210> 30680
<211> 240
<212> PRT
<213> A.fumigatus

<400> 30680

```
Asn His Gly Gly Phe Arg Ser Cys Gly Asp Glu His Tyr Gly Thr His
1               5                   10                  15
Tyr Ser Ser Ala Met Ile Val Cys Ser Tyr Leu Ile Arg Leu Gln Pro
            20                  25                  30
Phe Val Lys Ser Tyr Leu Leu Leu Gln Gly Gly Thr Phe Asp His Ala
        35                  40                  45
Asp Arg Leu Phe Tyr Ser Ile Gly Lys Ala Trp Glu Ser Ala Ser Arg
    50                  55                  60
Gly Asn Met Ser Asp Val Arg Glu Leu Thr Pro Glu Phe Phe Tyr Leu
65                  70                  75                  80
Pro Glu Phe Leu Val Asn Ser Asn Lys Tyr Asp Phe Gly Leu Leu Gln
                85                  90                  95
Asn Met Thr Thr Ala Ile Asp Ser Val Glu Leu Pro Pro Trp Ala Lys
            100                 105                 110
Gly Asp Pro Lys Ile Phe Ile Ala Lys His Arg Glu Ala Leu Glu Ser
        115                 120                 125
Ser Tyr Val Thr Glu Asn Leu His His Trp Ile Asp Leu Val Phe Gly
    130                 135                 140
Cys Lys Gln Lys Gly Glu Ala Ala Ile Glu Ala Val Asn Val Phe His
145                 150                 155                 160
His Leu Ser Tyr Gln Gly Ala Lys Asp Ile Asp Asn Ile Asp Asp Pro
                165                 170                 175
Val Glu Arg Leu Ala Thr Ile Gly Ile Ile His Asn Phe Gly Gln Thr
            180                 185                 190
Pro His Gln Ile Phe Thr Arg Pro His Pro Pro Arg Glu Asp Thr Arg
        195                 200                 205
His Lys Val Pro Arg Leu Asp Arg Leu Ala Glu Ser Leu Thr Gln Leu
    210                 215                 220
Pro Leu Ser Leu Leu Gly Lys Ser Ser Gly Leu Leu Arg Leu Trp Pro
225                 230                 235                 240
```

<210> 30681
<211> 215
<212> PRT
<213> A.fumigatus

<400> 30681

```
Gln Ala Gln Ile Leu Gly His Phe Glu His Leu His Ile Gly Gln Leu
```

```
1               5                   10                  15
Ser Cys Thr Ile Phe Ala Asp Ser Arg Thr Leu Val Thr Ser Gly Thr
            20                  25                  30
Asp Cys Val Val Ser Ile Trp Thr Tyr Asn Ser Thr Ala Lys Ser Val
        35                  40                  45
Asp Leu Gln Pro Ala Gly Ser Leu Phe Gly His Arg Asn Pro Val Asn
    50                  55                  60
Val Leu Ala Val Ser Arg Ser Phe Ser Ala Leu Leu Ser Ala Ser Thr
65                  70                  75                  80
Asp Gly Gln Ile Met Leu Trp Asp Leu Asn Gln His Thr Phe Val Arg
                85                  90                  95
Glu Leu Pro Ala Ser Gly Pro Val Asp Val Ser Asp Ala Arg Lys Leu
            100                 105                 110
Thr Lys Arg Pro Cys Ser Phe Arg Gln Arg Leu Thr Ser Ala Gln Cys
        115                 120                 125
Ala Arg Ile Asn Asp Val Thr Gly Glu Ile Met Val Cys Arg Gly Asn
    130                 135                 140
Arg Ile Ser Ile Tyr Thr Leu Asn Gly Ala Leu Leu Leu Glu Gln Asp
145                 150                 155                 160
Val Cys Glu Ser Ile Asp Asp Arg Val Met Ser Cys Val Phe Tyr Glu
                165                 170                 175
Gly Val Asp Asn Glu Trp Gln Glu Arg Glu Leu Ile Phe Thr Gly His
            180                 185                 190
Arg Lys Gly Val Val Asn Val Arg Cys Pro Asp Phe Phe Leu Lys Thr
        195                 200                 205
Val Leu Ser Leu Pro Ser Gly
    210                 215
```

<210> 30682
<211> 107
<212> PRT
<213> A.fumigatus

<400> 30682

```
Leu Gln Leu Arg Thr Ile Thr Ala Pro Ser Arg Leu Thr Arg Val His
1               5                   10                  15
Pro Ser Pro Thr Ala Val Ile Lys Thr Asn Gln Ser Arg Cys Ser Ser
            20                  25                  30
Gln Ile Leu Ile Leu Asp Ile His Pro Thr Asn Ile Pro Phe His Gly
        35                  40                  45
Phe Lys Leu Ala Cys Gln Leu Thr Pro Glu Val Gly Thr Ala Met Gly
    50                  55                  60
Gly Arg Asp Ser Asp Arg Glu Ala Arg Tyr Asp Tyr Asp Tyr Ala Arg
65                  70                  75                  80
Arg Arg Tyr Ala Thr Asp Asp Asp Asp Asp Tyr Asp Asp Asp Glu Leu
                85                  90                  95
Glu His Asp Leu Thr Glu Arg Arg Tyr Arg Arg
            100                 105
```

<210> 30683
<211> 197
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE

<222> (97)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30683
Gln Leu Gln Ser Met Cys His Pro Ile Asp Phe Ser His Pro His Leu
1 5 10 15
Ile Leu Thr Ser Thr Gly Arg Asn Pro Glu Asp Cys Leu Pro Pro Thr
20 25 30
Thr Ser Ser Ala His Ala Arg His Tyr Ser Gln Pro Asp Thr Ser Arg
35 40 45
Asn Ser Pro Thr Ser Arg Thr Glu Gly Cys Ala Gly His Leu Thr Gln
50 55 60
Pro Asp Asn Thr Ser His Gly Glu Ala His Asp Ser Pro Asp Asn Thr
65 70 75 80
Ala Asn Ala Gln His Pro Ser Ala Leu Pro Pro His Pro Pro Pro Ala
85 90 95
Xaa Ser Pro Ser Phe Ser Arg Pro Leu Pro Pro Pro Gly Pro Asn Arg
100 105 110
Pro Arg Gly Ala Thr Arg Lys Thr Ser Lys Gly Gly Gly Val Gln Met
115 120 125
Val Leu Glu Glu Gly Gly Ser Trp Ser Glu Leu Ala Asp His Ser Ser
130 135 140
Thr Leu Pro Ala Glu Gly Tyr Asp Asn Ala Ser Val Lys Gly Lys Ser
145 150 155 160
Ser Asn Ser Gly Met Leu Ala Phe Leu Ser Arg Lys Lys Gly Arg Asp
165 170 175
Arg Ser Pro Lys Pro Gln Glu Pro Gly Val Leu Gly Lys Glu Gly Ala
180 185 190
Arg Gln Ile Ile Ser
195

<210> 30684
<211> 69
<212> PRT
<213> A.fumigatus

<400> 30684
Ile Leu Ile Pro Leu His Leu Leu Phe Ser Ile Val Cys Leu Tyr His
1 5 10 15
Cys Leu Ser Met Asp Phe Arg Pro Asp Phe Pro Gln Thr Ile Arg Ile
20 25 30
Thr Gln Ser Ile Ser Glu Asn His Val Trp Arg Val Met Leu Thr Ile
35 40 45
Tyr Phe Glu Pro Lys Thr Thr Asn Val Ala Leu Tyr His Gln Ala Thr
50 55 60
Phe Ala Leu Pro Asn
65

<210> 30685
<211> 60
<212> PRT
<213> A.fumigatus

<400> 30685
His Leu Val Gly Pro Ile Trp Arg Pro Lys Gln Phe Trp Thr Ser Leu
1 5 10 15

```
Lys Thr Val Gln His Leu Ser Glu Pro Lys Arg Ser Ala Tyr Leu Leu
            20                  25                  30
Pro Cys Ile Thr Trp Ala Met Ser Pro Arg Glu Leu Ile Thr Leu Gly
        35                  40                  45
Leu Gln Arg Thr Leu Asn Gln Pro Leu Val Gly His
    50                  55                  60
```

<210> 30686
<211> 120
<212> PRT
<213> A.fumigatus

<400> 30686

```
Val Asn Pro Ser Gln Val Thr Asn Ser Leu Leu Gln Leu Lys Glu Ile
1               5                   10                  15
Phe Ala Asp Tyr Gln Pro Val Ser Ala Lys Ile Ala Leu Arg Pro Ile
            20                  25                  30
Pro Arg Phe Met Ile Lys Lys Leu Gln Ala Arg Asn Glu Arg Arg Lys
        35                  40                  45
Gly Arg Gly Phe Gly Phe Val Thr Leu Gly Ser Glu Glu Leu Gln Glu
    50                  55                  60
Lys Ala Val Lys Glu Met Asn Gly Lys Glu Ile Glu Gly Arg Glu Ile
65                  70                  75                  80
Ala Val Lys Val Ala Ile Asp Ser Pro Gly Lys Glu Asp Asp Ala Val
                85                  90                  95
Pro Thr Gly Glu Gln Thr Glu Ala Ala Ala Pro Ala Ala Lys Glu Gln
            100                 105                 110
Glu Asn Thr Pro Pro Ala Ala Ala
        115                 120
```

<210> 30687
<211> 247
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (80)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30687

```
Phe Leu Tyr Ser Glu Ser Thr Ser Ile Pro Val Asn Pro Arg Thr Asn
1               5                   10                  15
Arg Pro Val Gly Tyr Ala Phe Val Asp Leu Ala Thr Ala His Glu Ala
            20                  25                  30
Thr Ala Ala Ile Glu Glu Leu Ser Gly Lys Glu Ile Leu Gln Arg Lys
        35                  40                  45
Val Ser Val Gln Leu Ala Arg Lys Pro Glu Pro Ala Glu Ala Lys Ala
    50                  55                  60
Glu Gly Ala Ala Ser Gly Gly Glu Gly Ala Ser Gly Thr Glu Gly Xaa
65                  70                  75                  80
Lys Arg Thr Gly Gly Arg Ala Arg Gly Arg Gly Arg Gly Arg Gly Arg
                85                  90                  95
Gly Gly Arg Phe Gly Arg Gly Gly Arg Val Ser Phe Pro Cys Thr Phe
            100                 105                 110
Glu Leu Val Ser Thr Val Leu Leu Thr Ile Trp Thr Gln Asp Pro Thr
```

```
        115                 120                 125
Gly Arg Leu Pro Val Thr Asn Glu Ala Pro His Gln Ser Phe Pro Val
    130                 135                 140
Arg Val Glu Pro Gln Thr Glu Val Ala Asn Glu Gly Thr Asn Ala Gly
145                 150                 155                 160
Ala Ala Glu Ser Ser Lys Gln Gly Gly Lys His Gly Val Leu Cys Pro
                165                 170                 175
Gln Lys Gln Arg Gly Pro Pro Glu Asp Gly Ile Pro Ser Lys Thr Lys
            180                 185                 190
Val Met Val Ala Asn Leu Pro Tyr Asp Leu Thr Glu Asp Lys Val Arg
        195                 200                 205
Ile Ser Leu Glu Ser Thr Arg Ala Arg Leu Leu Thr Leu Phe Ser Ser
    210                 215                 220
Ser Arg Lys Ser Leu Pro Ile Thr Asn Leu Phe Pro Pro Arg Ser Pro
225                 230                 235                 240
Cys Val Pro Phe Leu Val Ser
                245
```

<210> 30688
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30688

```
Asn Asp Ile His Ser Phe Pro Gln Thr Ser Phe Thr Arg Glu Lys Thr
1               5                   10                  15
Thr Phe Ala Glu Lys Ser Ile Phe Thr Met Val Thr Tyr Glu Tyr Asn
            20                  25                  30
Tyr Pro Cys Ala Leu Ala Ile Thr Pro Ala Pro Ser Leu Thr Pro Thr
        35                  40                  45
Asp Leu His Gln Pro Arg Asn Glu Lys Phe Val Leu Asp Trp Asn Asn
    50                  55                  60
Leu Asp Ile
65
```

<210> 30689
<211> 61
<212> PRT
<213> A.fumigatus

<400> 30689

```
Gly Glu Met Asn Arg Ile Leu His Ser Gly Ile Thr Ser Asn Leu His
1               5                   10                  15
Ile Ile Ile Ser Val Leu Pro Gln Trp Ile Thr Met Pro Asn Ile Leu
            20                  25                  30
Gly Ser Glu Ile Asp His Ser Phe Pro Ala Ser Pro Ala Phe Asp Lys
        35                  40                  45
Arg Arg Gln Thr Asp His Pro Phe Thr Leu Phe Phe Ile
    50                  55                  60
```

<210> 30690
<211> 505
<212> PRT
<213> A.fumigatus

<400> 30690

```
Tyr Asn Val Val Asp Arg Gly Ser His Arg Arg Gly Ala Thr Asn Gly
1               5                  10                  15
Lys Ser Pro Asn Gln Gln Ile Gly Ala Ala Phe Arg Thr Cys Gly Glu
            20                  25                  30
Thr Thr Arg Asn Leu Arg Ser Leu Gly Ile Gly Pro Lys Ser Trp Ser
        35                  40                  45
Gly Arg Arg Leu Leu Arg Ser Thr Leu Leu Ser Arg Asp Ser Pro Lys
    50                  55                  60
Gln Gly Lys Ser Asp Ser Asp Ala Ser Asn Pro Leu Arg Leu Val His
65                  70                  75                  80
Val Gln Thr Arg Asp Val Leu Lys Thr Glu Gly Ile Glu Thr Lys Arg
                85                  90                  95
Tyr Ala Val Ile Ser Tyr Thr Trp Ser Gln Phe Ser Lys Glu Glu Leu
            100                 105                 110
Leu Glu Trp Ala Thr Ser Arg Ala Met Gln Leu Gly Tyr Glu Tyr Ile
        115                 120                 125
Trp Ile Asp Gln Tyr Cys Ile Asp Gln Lys Asn Lys Gln Glu Lys Asn
    130                 135                 140
Lys Glu Ile Lys Arg Met Arg Asp Tyr Tyr Lys Asn Ala Ala Gln Val
145                 150                 155                 160
Leu Val Leu Val Pro Asp Val Thr Ser Leu Ala Arg Phe Asp Val Ala
                165                 170                 175
Ser Thr Asp Gln Leu Ile His Val Asp Ala Ala Ile Asn Ala Ser Arg
            180                 185                 190
Asp Val Leu Lys Gln Phe Val Ser Cys Glu Trp Leu Lys Arg Val Trp
        195                 200                 205
Thr Phe Gln Glu Ala Trp Val Ala Arg Gln Cys Val Leu Cys Thr Lys
    210                 215                 220
Glu Gln Met Leu Asp Gly Thr Val Met Asp Ala Leu Leu Gly Leu Leu
225                 230                 235                 240
Lys Tyr Glu Ala Val Asn Arg Pro Arg Val Met Cys Ile Thr Ser Lys
                245                 250                 255
Ser Ile Ala Asn Pro Val Val Ala Asn Pro Asn Thr Val Val Trp Glu
            260                 265                 270
Gly Val Leu Ser Asn Arg Gln Thr Val Val Gly Ser Ile Asp Arg Trp
        275                 280                 285
Ile Leu Gln Ser Gly Arg Arg Val Tyr Glu Pro Pro Arg Leu Thr Leu
    290                 295                 300
Val Gln Ala Trp Glu Ala Ser Gln Gly Arg Asn Thr Val Asn Glu Glu
305                 310                 315                 320
Asp Arg Val Tyr Ala Leu Leu Ser Ser Ile Glu Gly Gly Asp Arg Val
                325                 330                 335
Thr Val Glu Arg Gly Arg Ser Leu Leu Ala Val Ile Gln Asp Cys Val
            340                 345                 350
Glu Ala Gly Ile Val Thr Ala Asp Leu Leu Ala Gly Asn Asp Pro Ser
        355                 360                 365
Thr Val Ala Asp Arg Cys Trp Met Pro Asp Leu Thr Gly Ser Gly Pro
    370                 375                 380
Gln His Pro Leu Arg Val Ala Ser Ala Ser Glu Lys Gln Gln Gln Leu
385                 390                 395                 400
Val Trp Arg Gly Gly Lys Val Ser Val Lys Gly Lys Ile Phe Gly Phe
                405                 410                 415
Ala Asp Val Ser Val Trp Leu Arg Ile Ala Leu Val Lys Thr Gln Asp
            420                 425                 430
Pro Ile Gln Gln Ser Glu Gly Ser Asp Arg Pro Trp Ile Gln Phe Ala
        435                 440                 445
```

```
Leu Ser Thr Arg Gln Lys Thr Trp Thr Pro Lys Asp Leu Ile Lys Ser
    450                 455                 460
Asp Phe Leu Leu Val Gln Pro Met Pro Gly Cys Thr Gln Thr Val Leu
465                 470                 475                 480
Val Ser Gly Lys Lys Leu Ala Asp Gly Ser Phe His Arg Ser Ser Pro
                485                 490                 495
Arg Gly Trp Lys Asp His Gly Gly Gln
            500                 505
```

<210> 30691
<211> 128
<212> PRT
<213> A.fumigatus

<400> 30691

```
Ser Val Trp Met Thr Arg Ile His Arg Arg Cys Gly Arg Arg Leu Met
1               5                   10                  15
Thr Thr Gly Asp Tyr Tyr Thr Gly Gly Ser Leu Asn Pro Ala Arg Ser
            20                  25                  30
Leu Gly Pro Asp Val Ile Asn Arg Ser Phe Pro Gly Tyr His Trp Ile
        35                  40                  45
Tyr Trp Val Gly Pro Leu Leu Gly Ser Leu Leu Ala Cys Gly Phe Tyr
    50                  55                  60
Thr Phe Leu Arg Met Phe Lys Tyr Glu Ser Val Asn Pro Gly Gln Asp
65                  70                  75                  80
Tyr Asp Glu Trp Glu Ala Lys Arg Asn His Gly Ser Phe Asp Gly Asn
                85                  90                  95
Gly Arg Glu Ser Thr Ala Phe Ser Asp Ser Thr Ala Gly Ala Gln Ser
            100                 105                 110
Gln Ser Pro Arg Gly Val Asn Arg Pro Val Ser Gly Ala Glu Gln Val
        115                 120                 125
```

<210> 30692
<211> 313
<212> PRT
<213> A.fumigatus

<400> 30692

```
Thr Ser Val Phe Val Phe Ser Val Ser Ser Lys Asp Thr Met Ala Phe
1               5                   10                  15
Gly Lys Arg Asn Gly Glu Glu Arg Arg Val Leu His Arg Thr Gln Ser
            20                  25                  30
Gln Leu Pro Met Leu Gly Leu Ala Asp Ser Ala Arg Asn Asn Leu Ile
        35                  40                  45
Ala Val Val Gly Glu Phe Val Gly Thr Phe Leu Phe Leu Phe Phe Ser
    50                  55                  60
Phe Ala Gly Thr Gln Val Ser Asn Thr Pro Lys Pro Val Ala Gly Ala
65                  70                  75                  80
Pro Pro Asn Thr Ser Asn Leu Leu Tyr Ser Ala Leu Ser Phe Gly Phe
                85                  90                  95
Ser Leu Thr Val Asn Ile Trp Ala Phe Tyr Arg Val Thr Gly Gly Leu
            100                 105                 110
Phe Asn Pro Val Val Ser Pro Thr His Glu Leu Gln His Asn Gly Ser
        115                 120                 125
Ala Leu Ser Glu Gln Val Ser Leu Ala Leu Cys Leu Val Gly Gly Met
    130                 135                 140
```

```
Pro Pro Leu Arg Gly Val Leu Val Phe Met Ala Gln Leu Val Gly Gly
145                 150                 155                 160
Ile Ala Ala Ala Gly Val Val Ser Ala Leu Phe Pro Gly Asp Leu Asn
                165                 170                 175
Val Gly Thr Arg Leu Gly Gly Gly Ala Ser Ile Ser Gln Gly Leu Phe
            180                 185                 190
Ile Glu Met Phe Leu Thr Ala Gln Leu Val Phe Val Ile Ile Met Leu
        195                 200                 205
Ala Val Val Lys His Lys Ser Thr Phe Leu Ala Pro Val Gly Ile Gly
    210                 215                 220
Leu Thr Phe Phe Val Thr Glu Met Ile Gly Met Asp Asp Pro Asn Pro
225                 230                 235                 240
Pro Ser Met Arg Thr Glu Ala Asn Asp Asn Arg Arg Leu Leu Tyr Gly
                245                 250                 255
Gly Ile Ala Glu Pro Arg Ala Leu Ala Trp Pro Gly Arg Asp Gln Pro
            260                 265                 270
Glu Leu Pro Trp Leu Ser Leu Asp Leu Leu Gly Trp Thr Ala Ala Arg
        275                 280                 285
Val Ser Ala Gly Leu Arg Ile Leu His Leu Pro Pro Asp Val Gln Ile
    290                 295                 300
Arg Val Arg Gln Pro Gly Ala Gly Leu
305                 310
```

<210> 30693
<211> 306
<212> PRT
<213> A.fumigatus

<400> 30693

```
Gly Leu Cys Arg Asn Lys Pro Leu Gly Leu His Leu Phe Ser Ser Ser
1               5                   10                  15
His Asp Arg Pro Ser Gly Glu Arg Arg Tyr Ser Asp Ser Ala Leu Glu
            20                  25                  30
Val Glu Asp Asn Ala Lys Ser Gly Arg Glu Asp Leu Ile Asp Leu Arg
        35                  40                  45
Glu Ser Gln Asp Gln Ser His His Asp Ala His Pro Glu Asn Ser Val
    50                  55                  60
Ala Val Gln Arg Thr Asp Glu Thr Pro Asp Phe Asp Thr Thr Ile His
65                  70                  75                  80
Thr Pro Glu Val Phe Leu Phe Asp Tyr Gly Thr Val Val Ile Trp Gly
                85                  90                  95
Met Ser Pro Ala Gln Glu Ser Arg Phe Leu Ser Asp Val Ser Lys Phe
            100                 105                 110
Ala Asn Ser Ile Leu Ser Pro Glu Asp Thr Gln Val Glu Asn Phe Asn
        115                 120                 125
Phe Tyr Tyr Ala Arg Glu Tyr Gln Ala Arg Ile Tyr Asn Asp Phe Ile
    130                 135                 140
Ser Leu Arg Asp Pro Arg Asn His Met Ile Lys Leu Ala Ile Ser His
145                 150                 155                 160
Ala Leu Ser Gln Ser Val Lys Thr Ser Leu Phe Glu Asp Leu Val Ser
                165                 170                 175
Glu Thr Ile Ser Asn Thr Ala Pro Leu Pro Ala Gln Ile Ala Gln Thr
            180                 185                 190
Gly Ser Val Asn Met Thr Arg Arg Gln Ile Asn Met Gln Ile Gly Glu
        195                 200                 205
Leu Phe Ile Leu Arg Ile Asn Ile His Leu Gln Gly Ser Val Leu Asp
```

```
    210                 215                 220
Ser Pro Glu Leu Met Trp Ala Glu Pro Gln Leu Glu Pro Val Tyr Gln
225                 230                 235                 240
Ala Val Arg Ser Tyr Leu Glu Met Asp Gln Arg Val Ser Leu Leu Thr
                245                 250                 255
Glu Arg Leu Asp Val Ile Ala Asp Leu Leu Ala Val Leu Lys Asp Gln
            260                 265                 270
Leu Thr His Arg His Gly Glu Tyr Leu Glu Trp Ile Gly Lys Ser Leu
        275                 280                 285
Thr Ser Ser Arg Arg Val Asn Pro Cys Leu Ala His Gln Leu Gln Ser
    290                 295                 300
Ser Ser
305
```

<210> 30694
<211> 112
<212> PRT
<213> A.fumigatus

<400> 30694

```
Gly Ala Phe Ser Val Phe Phe Phe Phe Leu Phe Phe Leu Phe Phe Leu
1               5                   10                  15
Phe Phe Ala His Ser Arg Leu Ile Ser Leu Ser Phe Cys Phe Ile Ser
            20                  25                  30
Gln Ala Ala Ile Pro Ile Trp Lys Glu Gly Leu Phe Tyr Ile Asp Phe
        35                  40                  45
Ser Gln Asn Gly Met Leu Ala Leu Val Val Thr Leu Met Ile Ser Ala
    50                  55                  60
Trp Met Pro Phe Ser Cys Leu Leu Glu Asn Gln Ser Arg Arg Cys Leu
65                  70                  75                  80
Glu Phe Ala Ala Arg Gln Gln Met Glu Asp Ser Leu Ala Thr Gln Cys
                85                  90                  95
Ala Pro Leu Ser Asn Tyr Ser Gln Ala Ser Cys Ile Leu Gly Ser Lys
            100                 105                 110
```

<210> 30695
<211> 66
<212> PRT
<213> A.fumigatus

<400> 30695

```
Glu Arg Cys Phe Ile Met Asp Val Pro Asp Asp Met Leu Asn Ile Asn
1               5                   10                  15
Ser Leu Ser Asn Gly Thr Tyr Lys Asp Gly Cys Leu Asp Ile Ser Lys
            20                  25                  30
Lys Asp Ala Arg Val Pro Asn Glu Asp Asp Gln Leu Gln Thr Gln Ser
        35                  40                  45
Ser Thr Pro Tyr Ala Asn Thr Ser Gly Ala Lys Tyr Gly Pro Gln Leu
    50                  55                  60
Met Gln
65
```

<210> 30696
<211> 104
<212> PRT
<213> A.fumigatus

<400> 30696
Asn Leu Cys Gln Arg Thr Glu Glu Gln Ser Ile Asn Asp Asn Pro Asp
1 5 10 15
Ser Pro His His Gly His Ser Asp Lys Asn Ala Tyr Asn Leu Pro Cys
20 25 30
Asp Lys His Ile Asp Ala Trp Gly Pro Thr Ser Thr Thr Ser Glu Arg
35 40 45
Lys Ser Thr Gly Trp Leu Lys Asn Gly Lys Ala Thr Lys Lys Ser Gly
50 55 60
Asp Tyr Gln Gly Tyr Val Ala Asn Phe His Ser Glu Lys His Leu Asp
65 70 75 80
His Pro Glu Gly Ala Lys Ile Pro Ala Gly Arg Gln Pro Arg Phe Leu
85 90 95
Asn Asn Ala Thr Asp Asn Val Gln
100

<210> 30697
<211> 297
<212> PRT
<213> A.fumigatus

<400> 30697
His Leu Ala Ala Ser Ala Asp Arg Arg Pro Val Asp Pro Pro Pro Val
1 5 10 15
Val Glu Leu Arg Ile Phe Glu Ser Asp Pro Asn Asp Asp Leu His Lys
20 25 30
Thr Asp Ile Thr Phe Ala Tyr Asn Ala Asn Phe Phe Leu Phe Ala Thr
35 40 45
Leu Glu Thr Ala Arg Pro Met Ala Gln Gly Arg Leu Thr Gly Pro Pro
50 55 60
Thr Cys Pro Val Leu Thr Gly Val Pro Val Ala Gly Val Ala Tyr Leu
65 70 75 80
Asp Arg Pro Gln Gln Ala Gly Tyr Phe Ile Phe Pro Asp Leu Ser Val
85 90 95
Arg His Glu Gly Arg Tyr Arg Leu Ser Phe His Leu Tyr Glu Glu Ile
100 105 110
Lys Asp Ile Lys Asp Ala Asp Lys Asp Thr Pro Met Pro Asp Leu Asn
115 120 125
Ser Ser Thr Asn Leu Thr Lys Pro Ser Ala Pro Lys Ala His Leu Asn
130 135 140
Phe Arg Leu Glu Val Lys Ser Val Pro Phe Thr Val Tyr Ser Ala Lys
145 150 155 160
Lys Phe Pro Gly Leu Ala Thr Ser Thr Ser Leu Ser Arg Ile Ile Ala
165 170 175
Glu Gln Gly Cys Arg Val Arg Ile Arg Arg Asp Val Arg Met Arg Arg
180 185 190
Arg Gly Glu Lys Arg Thr Asp Asp Tyr Asp Phe Asp Asp Glu Arg Ala
195 200 205
Phe Ala Thr Arg Ser Asp Arg Tyr Thr Thr Pro Asp Met Tyr Ala Ala
210 215 220
Asn Ser Ala Glu Arg Ala Arg Ser Thr Ser Ile Ser Thr Thr Ala Asp
225 230 235 240
Thr Ser Phe Pro Tyr Gly Ser Asp Ala Gln Arg Arg Pro Ser Ala Gly
245 250 255
Asp Tyr Gly Phe Gln Gly Ala Gln Pro Tyr Gln Arg Ser Met Pro Ala

```
            260                 265                 270
Ala Ser Ala Ala Pro Ala Pro Ala Pro Val His Ser Pro Ala Thr Ser
        275                 280                 285
Ala Gln Thr Ser Ser Tyr Gln Val Phe
    290                 295
```

<210> 30698
<211> 320
<212> PRT
<213> A.fumigatus

<400> 30698

```
Phe Val Val Cys Leu Arg Gln Leu Asn Leu Thr Ser Pro Gly Ser Thr
1               5                   10                  15
Cys Val Ala Leu Met Pro Leu Thr Gln Pro Leu Arg Cys Arg Ala Gly
            20                  25                  30
Arg Pro Ser Pro Pro Pro Pro Ser Thr Phe Val Arg Arg Pro Val Phe
        35                  40                  45
Ser Gly Arg Ser Gly Ile Ile Ser Thr Pro Gly Ala Arg Leu Leu Pro
    50                  55                  60
Leu Lys Arg Val Phe Cys Thr Ser Thr Ile Leu Gln Arg His Lys Ser
65                  70                  75                  80
Pro Leu Ser Ser Asn Ala Arg Val Arg Ser Leu Pro Arg Arg Ser Leu
                85                  90                  95
Thr Pro Phe Ala Lys Thr Ile Ser Thr Pro Asn Leu Ile Thr Thr Ser
            100                 105                 110
Phe Met Ala Thr Gln Thr Arg Glu His Gly Gly His Gly Gly His Ser
        115                 120                 125
His His His His His His His Gly Asn Val Tyr Leu Thr Ser Ala Asn
    130                 135                 140
Lys Ser Asp Ala Gly Val Arg Ile Thr Arg Ile Gly Leu Val Ala Asn
145                 150                 155                 160
Leu Ala Met Ala Ile Gly Lys Phe Ile Gly Gly Tyr Val Phe His Ser
                165                 170                 175
Gln Ala Leu Ile Ala Asp Ala Tyr His Ala Leu Thr Asp Leu Val Ser
            180                 185                 190
Asp Phe Leu Thr Leu Gly Thr Val Ala Trp Ser Leu Lys Pro Pro Thr
        195                 200                 205
Glu Arg Phe Pro Asn Gly Tyr Gly Lys Ile Glu Ser Ile Gly Ala Leu
    210                 215                 220
Gly Val Ser Gly Leu Leu Leu Cys Gly Gly Val Phe Met Gly Leu Asn
225                 230                 235                 240
Ser Gly Gln Val Leu Leu Asp Gln Phe Phe Pro Glu Ala Ala Glu Ala
                245                 250                 255
Ile Ala His Ser Gly Val Leu Gly His Gly His Ser His Ala His Gly
            260                 265                 270
Val Gln Ala Leu Gly Pro Asn Ile Asn Ala Ala Trp Leu Ala Gly Gly
        275                 280                 285
Ser Ile Ile Val Lys Glu Trp Leu Tyr Arg Ala Ser Glu Tyr Pro Arg
    290                 295                 300
Pro Glu Phe Gln Ile Pro Ile Ser Ala Ser Val Thr Val Val Ile Ser
305                 310                 315                 320
```

<210> 30699
<211> 62
<212> PRT

<213> A.fumigatus

<400> 30699
Ile Ser Phe Phe Pro Leu Cys Ile Ser Leu Gln Asn Asn Met Asn Tyr
1 5 10 15
Thr Lys Leu Ser Ile Asn Tyr Phe Gly Asp Thr Pro Ser Gln Thr Trp
20 25 30
Val Gln Pro Arg Arg Thr Gln Cys Pro Glu Leu Pro Gln Pro Ser Asn
35 40 45
Arg Thr Pro Ala Asn Leu Leu Pro Leu Ile Cys Arg Val Pro
50 55 60

<210> 30700
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30700
Thr Val Lys Leu Asn Phe Pro Gly Glu Tyr Val Arg Arg Pro Asp Ala
1 5 10 15
Ala Asp Ala Ala Pro Ala Val Gln Gly Arg Ser Ser Ile Thr Thr Thr
20 25 30
Thr Ile Asn Phe Cys Pro Pro Pro Arg Ile Gln Trp Thr Val Trp Asp
35 40 45
His Phe His Ser Trp Cys Ala Ser Leu Thr Pro Glu Ala Ser Leu Leu
50 55 60
His Ile Asn Asp Pro Ser Ala Pro
65 70

<210> 30701
<211> 101
<212> PRT
<213> A.fumigatus

<400> 30701
Val Pro Thr Ser Arg Ile Pro Asn Ser Asn Phe Cys Leu Arg Tyr Cys
1 5 10 15
Gly Tyr Gln Leu Thr Ala Ala Gly Leu Leu Phe Leu Ala Met Lys Ile
20 25 30
Ala Asn Glu Arg Lys Ser Ser Val Leu Ala Ser Asn Ala Val His His
35 40 45
Arg Ile Asp Ser Leu Thr Ser Ile Val Ala Leu Phe Thr Ile Gly Gly
50 55 60
Ser Tyr Met Phe Gln Asp Ala Ser Trp Leu Asp Pro Val Gly Ala Phe
65 70 75 80
Ser Cys Leu His His Gly Ala Ala Arg Ile Arg Ala Lys Arg Ile Glu
85 90 95
Glu Trp Glu Gly Arg
100

<210> 30702
<211> 161
<212> PRT
<213> A.fumigatus

<400> 30702

```
Asn Pro Cys Arg Tyr Tyr Ser Val Thr Ile Tyr Asn Gln Ile Gly Ile
1               5                  10                  15
Ala Gly Asp Glu Thr Leu Lys Tyr Gln Ala Ile Asn Ser Ile Ile Ala
            20                  25                  30
Leu Val Ala Glu Cys Leu Cys Met Ala Phe Ile Asp Arg Phe Gly Arg
        35                  40                  45
Arg Trp Thr Leu Ile Gly Gly Asn Leu Gly Asn Met Val Thr Phe Ile
    50                  55                  60
Ile Ala Cys Ile Leu Leu Ala Arg Phe Pro Pro Glu Ala Asn Asn Thr
65                  70                  75                  80
Gly Ala His Trp Gly Phe Ile Ile Met Thr Trp Leu Tyr Asn Phe Ser
                85                  90                  95
Phe Ser Cys Thr Cys Gly Pro Leu Ser Trp Ile Ile Pro Ala Glu Val
            100                 105                 110
Phe Asp Thr Arg Thr Arg Ser Lys Gly Val Phe His Cys His Asn Asp
        115                 120                 125
Ile Val Cys Val Gln His His Asp Arg Ser Ser Asp Ala His Arg Asn
    130                 135                 140
Asp Lys Cys Ala Leu Pro Leu Leu Leu Ser Leu His His Leu Gln Phe
145                 150                 155                 160
His
```

<210> 30703
<211> 80
<212> PRT
<213> A.fumigatus

<400> 30703

```
Leu Leu Pro Cys Trp Pro Asp Arg Ser Thr Asp Ala Ser Pro Leu Phe
1               5                  10                  15
Lys Arg Gly Asn Ser Ala Arg Arg Ser Ser Tyr Ser Val Ile Ala Tyr
            20                  25                  30
Cys Leu Asp Leu Pro Asn Tyr Ala Ile Pro Arg Gly Ser Glu Leu Lys
        35                  40                  45
Thr Asp Tyr Lys Ser Phe Phe Cys Pro Leu Pro Ser Met Phe Ser Pro
    50                  55                  60
Lys Ala Leu Val Pro Arg Arg Ser Cys Ile Pro Ile Gln Asn Ile Ser
65                  70                  75                  80
```

<210> 30704
<211> 135
<212> PRT
<213> A.fumigatus

<400> 30704

```
Pro Gly Cys Thr Thr Ser Pro Ser Arg Ala Pro Ala Ala Pro Phe Arg
1               5                  10                  15
Gly Leu Tyr Leu Pro Lys Ser Ser Thr Arg Ala His Ala Arg Arg Gly
            20                  25                  30
Phe Ser Ile Ala Thr Met Thr Ser Phe Ala Phe Asn Thr Met Ile Gly
        35                  40                  45
Gln Val Thr Pro Ile Ala Met Thr Asn Val Arg Tyr Arg Tyr Tyr Tyr
    50                  55                  60
Leu Phe Ile Ile Cys Asn Phe Thr Asn Ala Leu Val Phe Trp Leu Leu
65                  70                  75                  80
```

```
Leu Ser Glu Thr Lys Lys Leu Leu Leu Glu Glu Met Asn Tyr Leu Phe
                85                  90                  95
Ser Asn Ala Pro Trp Ile Val Pro Val Thr Arg Thr Glu Asp Tyr Thr
            100                 105                 110
Pro His Asp Leu Glu Arg Lys Val Glu Ala Gln Gln Glu Ile Gln Ala
        115                 120                 125
Val Phe Ala Thr His His Glu
    130                 135
```

<210> 30705
<211> 101
<212> PRT
<213> A.fumigatus

<400> 30705

```
Val Glu His Ala Ser Val His Leu Val Ile Glu Val Leu Arg Gly Leu
1               5                  10                  15
Thr Asn Arg Ser Ala Leu Ala Tyr Val Asn Glu Ala Glu Val Gly Gln
            20                  25                  30
Gly Ile Arg Asp Ser Gly Ile Pro Arg Glu Glu Ile Trp Ile Thr Thr
        35                  40                  45
Lys Leu Asp Asn Thr Trp His His Arg Val Gln Glu Gly Ile Asp Ser
    50                  55                  60
Ser Leu Lys Ser Leu Gly Val Glu Tyr Val Asp Leu Tyr Leu Met His
65                  70                  75                  80
Trp Pro Cys Ser Thr Asp Pro Asn Asp Lys Ser Lys His Leu Pro Asp
                85                  90                  95
Trp Asp Phe Ile Lys
            100
```

<210> 30706
<211> 241
<212> PRT
<213> A.fumigatus

<400> 30706

```
Ser Val Val Gly Glu Pro Arg Ser Gln Cys Glu Lys Glu Gln Gly Ala
1               5                  10                  15
Lys Thr Ser Glu Glu Asn Ser His Asp Gly Leu Phe His Gln Val Tyr
            20                  25                  30
Glu Trp Leu Gln Gln Glu Lys Val Lys Gln Lys Ser Arg Arg Ser Lys
        35                  40                  45
Leu Arg Gly Thr Gly Glu Gly Val Glu Ser Asp Gly Asp Asp Asp Tyr
    50                  55                  60
Tyr Asp Gly Ile Val Asp Lys Thr Ala Ser His Asp Ser Glu Ser Thr
65                  70                  75                  80
Phe Ala Leu Asp Lys Leu Glu Lys Ile Leu Val Arg Tyr Ala Ala Ser
                85                  90                  95
Arg Ile Glu Gly Ser Ser Ser Ala Tyr Pro Leu Arg Gly Pro Thr Arg
            100                 105                 110
Lys Arg Ser Arg Ile Lys Gly Leu Arg Arg Gly Ser Ala Ser Glu Ser
        115                 120                 125
Asp Gln Tyr Asp Leu Asp Thr Ala Val Pro Ala Val Asp Ala Val Leu
    130                 135                 140
Asp Asn Ser Lys Thr Leu Ala Tyr Thr Gly Gly Thr Ala Glu Glu Asp
145                 150                 155                 160
```

```
Asp Arg Arg Leu Lys Asp Lys Glu Ala Trp Leu Thr Phe Lys Ser Glu
                165                 170                 175
Ile Val Arg Leu Ala Ile Thr Leu Gln Ile Lys Gly Trp Arg Lys Phe
            180                 185                 190
Pro Gln Glu Leu Ala Gly Glu Ile Glu Val Ile Arg Leu Ser Gly Ala
        195                 200                 205
Leu Thr Asn Ala Val Tyr Val Val Asn Pro Pro Lys Ser Leu Pro Pro
    210                 215                 220
Pro Lys Gly Glu Asp Gly Ser Tyr Ser Leu Val Pro Arg Lys Ala Pro
225                 230                 235                 240
Pro
```

<210> 30707
<211> 171
<212> PRT
<213> A.fumigatus

<400> 30707

```
Ala Ala Ile Phe Arg Arg Leu Ser Arg Lys Asp Ile Gly Pro Lys Val
1               5                   10                  15
Leu Gly Thr Phe Asn Tyr Gly Arg Phe Glu Glu Phe Leu Glu Ala Arg
            20                  25                  30
Pro Leu Thr Pro Lys Asp Leu Arg Val Pro Glu Thr Met Lys Gln Ile
        35                  40                  45
Ala Lys Arg Met Arg Glu Leu His Glu Gly Ile Glu Leu Leu Glu Glu
    50                  55                  60
Glu Arg Glu Gly Gly Pro Met Val Phe Lys Asn Trp Asp Lys Trp Val
65                  70                  75                  80
Asp Arg Cys Glu Gln Val Ile Asn Trp Leu Asp Met Glu Ile Gln Ser
                85                  90                  95
Asp His Asn Glu Ala Lys Ala Ala Ser Glu Pro Trp Arg Arg Arg Gly
            100                 105                 110
Phe Val Cys Gly Val Pro Trp Pro Ile Phe Arg Lys Ala Val Glu Asn
        115                 120                 125
Tyr Arg Lys Trp Leu Val Ser Ser Cys Gly Gly Ile Lys Glu Ile Lys
    130                 135                 140
Arg Gln Leu Val Phe Ala His Asn Asp Val Ser His Ser Phe Arg Gln
145                 150                 155                 160
Ile His Cys Leu Leu Ile Val His Pro Leu Thr
                165                 170
```

<210> 30708
<211> 124
<212> PRT
<213> A.fumigatus

<400> 30708

```
Ala Pro Leu Pro Glu Glu Thr Arg Arg Asp Tyr Gly Ala Cys Ser Thr
1               5                   10                  15
Leu Leu Ser Gly Val Pro Trp Gly Ile Val Gln Ala Lys Val Pro Gly
            20                  25                  30
Met Glu Glu Gly Ile Ala Ala Ala Ala Ala Ala Lys Ala Ser Asn Gly
        35                  40                  45
Asn Gly His Ser Ser Glu Ser Asn Gly Ser Ala Val Ala Ala Ala Glu
    50                  55                  60
```

```
Gln Pro Ala Gln Pro Ala Val Asp Ala Asp Val Asp Glu Gly Asp Glu
65                  70                  75                  80
Phe Asp Tyr Leu Ala Tyr Ala Gln Asp Arg Ala Met Phe Phe Trp Ala
                85                  90                  95
Asp Leu Leu Ala Leu Asn Leu Val Arg Glu Asp Glu Leu Pro Pro Gln
            100                 105                 110
Met Val Glu His Val Lys Ser Arg Met Ile Asp Tyr
        115                 120
```

<210> 30709
<211> 333
<212> PRT
<213> A.fumigatus

<400> 30709

```
Arg Leu Ser Lys Lys Lys Gln Ser Ser Tyr Val Tyr Met Phe Gln Ala
1               5                  10                  15
Gln Cys Arg Gln Val Phe Glu Phe Thr Glu Ile Asp Asp Ile Tyr Pro
            20                  25                  30
Ala Leu Leu Asn Leu Arg Arg Pro Thr Leu Pro Phe Asn Ala Lys Val
        35                  40                  45
Thr His Asp His Leu Arg Pro Leu Gln Lys Leu Ala Gln Asp Leu Lys
    50                  55                  60
Ala Gly Ala Gln Ala Leu Glu Asn Ala Tyr Lys Leu Gly Thr Gly Tyr
65                  70                  75                  80
Asp Asp Leu Ala Val Val Leu Leu Glu Pro Ser Asp Lys Ala Asp Thr
                85                  90                  95
His Cys Phe Asp Asp Met Leu Asn Ala Ser Met Ala Leu Lys Ala Val
            100                 105                 110
Asp Ser Ser Ile Arg His Ala Phe Asn Gly His Arg Ser Ile Gln Asn
        115                 120                 125
Thr Ile Ile Leu Asp Ile Arg Ala Phe Arg Ser Asp Ser Ile Arg Arg
    130                 135                 140
Thr Gln Gly Ala Ser Asp Lys Leu Glu Ala Asp Glu Leu Ala Tyr Thr
145                 150                 155                 160
Ala Phe Glu Gln Ile Leu Cys Asn Leu Lys Pro Asp Val Ile Leu Val
                165                 170                 175
Cys Gln Cys Gln Thr Asn Thr Asn Glu Val Gly Ser Arg Phe Ala Arg
            180                 185                 190
Gln Ala Cys Ser Ser Ile Asp Glu Ala Thr Asp Ile Thr Val Leu Arg
        195                 200                 205
Leu Pro Arg Thr Gln His Glu Ser Val Met Val Lys Ser Phe His Pro
    210                 215                 220
Met Tyr Leu Glu Tyr Met Arg Glu Ala Pro Asn Asp Ser Ala Thr Lys
225                 230                 235                 240
Ala Val Leu Arg Glu Tyr Leu Phe Asp Ala Gly Phe Ile Ile Ala Ser
                245                 250                 255
Asn Ala Leu Ala Gly Arg Ser Ile Thr Gly Phe Gly Leu His Asn Leu
            260                 265                 270
Lys Ala Cys Ala Arg Asp Gly Pro Ala Phe Ile Ala Thr Pro Gln Gly
        275                 280                 285
Val Arg Ile Ser Tyr Leu Trp Thr Ser Gly Ser Asp Ile Ala Ser Thr
    290                 295                 300
Glu Leu Val Glu Ala Leu Lys Thr Leu Gly Ile Ser Ser Lys Val Gly
305                 310                 315                 320
Trp Cys Val Ser His Cys Arg Val Arg Leu Met Asp Ser
```

325 330

<210> 30710
<211> 374
<212> PRT
<213> A.fumigatus

<400> 30710
Leu Gln Glu Glu Ala Ser Arg Val Arg Ser Cys Pro Thr Leu Ser Gln
1 5 10 15
Val Arg Leu Val Gly Lys Gly Gly Lys Pro Ile Tyr Leu Ser Pro Pro
20 25 30
Glu Leu Gln Phe Val Ala Lys Val Asn Ala Gly Ala Lys Lys Ala Thr
35 40 45
Cys Val Asp Val Thr His Lys Lys Arg Gly Arg Pro Pro Leu Lys Ala
50 55 60
Glu Asp Ala Ser Leu Arg Thr Tyr Thr Thr Gln Ala Glu Asn Ala Val
65 70 75 80
Thr Ser Gly Glu Gln Gln Pro Pro Leu Ala Arg Arg Thr His Thr His
85 90 95
Lys Ser Thr Gly Ser Arg Glu Ile Arg Pro Val Thr Asp Leu Gln Ile
100 105 110
Pro Gly Thr Pro His Gly Thr Val Gly Phe Arg Ala Ala Pro Gly His
115 120 125
Pro His Arg Trp Ser Thr Ser Val Phe Pro Gln Ala Val Asp Pro Ser
130 135 140
Ile Ser Met Gln Ser Asn Leu Gly His Arg Arg Phe Ser Ser Ser Gly
145 150 155 160
Ser Ile Pro Gln Met Thr Ala Ala Thr Gln Ser Gly Ile Met Pro Leu
165 170 175
Thr Ser Gly Phe Ser Pro Val Leu Asn Leu Gly Gly Ser Gln Met Gly
180 185 190
Ala Arg Arg Ala Phe Ser Ser Tyr Thr His Gln Gly Leu Pro Pro Thr
195 200 205
Thr Ser Pro Pro Gln Tyr Gln Gln Pro Phe Gly Val Pro Met Pro Pro
210 215 220
Tyr Thr Val Ser Pro Arg Met Val Ser Arg Leu Pro Pro Gly Asp Thr
225 230 235 240
Arg Glu Ala Tyr Pro Glu Ser Pro Val Arg Leu Pro Pro Ile Phe Pro
245 250 255
Pro Ala Met Pro His Ser Arg Pro Ala Pro Gln Ala His Arg Leu Ser
260 265 270
Asp Pro Tyr Pro Ala Val Trp Ser Pro Arg Leu Arg Glu Glu Leu Met
275 280 285
Gln Pro Gln Pro Gln Gln Gln Thr Arg Gly Ser Ser Pro His Ser Leu
290 295 300
Met Glu Pro Thr Ser Ser Ala Ala Gln Thr Arg His Ala Ala Leu Glu
305 310 315 320
His Gly His Gly Glu Val Ala Pro His Gln Ser Asn Ser Ile Ile Gln
325 330 335
Gly Ala Gln Thr Leu Ser Val Gln Ser Ser Pro Thr Arg Pro Arg Asp
340 345 350
Glu Gln Pro Ala Gly Gly Thr Asp Thr Asp Asp Pro Cys Pro Arg Arg
355 360 365
Cys Gln Arg Trp Leu Gly
370

<210> 30711
<211> 250
<212> PRT
<213> A.fumigatus

<400> 30711
Thr Leu Pro Ala Val Val Pro Leu Gln Gln Gln Gly Pro Ser Thr Tyr
1 5 10 15
Gln Met Gln Ser Leu Val Leu Pro Pro Ser Ala Leu Thr Ser Thr Gln
20 25 30
Phe Gly His Pro Arg Phe Ser Ser Ala Ser Glu Arg Leu Ala Leu Lys
35 40 45
Tyr Thr Leu Pro Thr Asn Ala Arg Leu Cys Asn Ser Arg Asp Leu Pro
50 55 60
Pro Val His Pro Met Ser Ser Ser Val Pro Ala Glu Asp Pro Leu Glu
65 70 75 80
Thr Thr Arg His Val Lys Pro Pro Pro His Thr Thr Gly Leu Pro Thr
85 90 95
Val Thr Ala Val Pro Val Thr Ala Pro Ala Val Thr Pro Ala Ser Val
100 105 110
Ser Glu Thr Ala Leu Ala Ser Gly Ser Ser Gly Pro Ala Ala Gly His
115 120 125
Thr Ser Ala Phe Gln Gln Tyr Val Ala Arg Thr Ala Gly Glu Glu Met
130 135 140
Arg Pro Pro Phe Ile Phe Asn Glu Thr Val Pro Gly Ser Gln Ala Pro
145 150 155 160
Leu Gly Thr Thr Glu Gln Arg Gly Ala Gln Glu Ser Ser Thr Ala Phe
165 170 175
Pro Ser Ser Ser Arg Gly Thr Ser Pro Thr Gly Thr Thr Thr Arg Ala
180 185 190
Leu Leu Pro Lys Gly Thr Arg Arg Thr Lys Ala His Val Ala Ser Ala
195 200 205
Cys Val Asn Cys Lys Lys Lys His Leu Gly Cys Asp Pro Ala Arg Pro
210 215 220
Cys Arg Arg Cys Val Leu Ser Gly Lys Glu Val Ser Gln Ser Ile Leu
225 230 235 240
Val His Leu Ser Cys Ser Ser Leu Leu Arg
245 250

<210> 30712
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30712
Leu Ile Asp Leu Leu Met Ser Lys Gly Asn Ile Ser Leu Cys Pro Ser
1 5 10 15
Val Tyr Asn Ile Pro Thr Val Thr Arg Leu Gln Leu Phe Leu Leu Ile
20 25 30
Ile Ala Ala Leu Phe Leu Ser Phe Gln Ser Thr Leu Ala Ala Arg Pro
35 40 45
Ser Leu Phe Leu Asp Phe Val Pro Glu His Thr Phe Pro Val Ile Cys
50 55 60
Phe Asp Ser
65

<210> 30713
<211> 195
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (133),(168)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30713
Ile Tyr Arg Ala Leu Cys Pro Ser Ala Pro Leu Pro Arg Ala Arg Val
1 5 10 15
Ala Ala Val Arg Thr Leu Tyr Asp Pro Thr Gln Glu Pro Ser Ala Asn
20 25 30
Thr Val Leu Asp Ala Gly Ala Leu Val Leu Tyr Phe Pro Gly Pro Lys
35 40 45
Thr Val Thr Gly Glu Asp Val Leu Glu Leu His Leu His Gly Gly Pro
50 55 60
Ala Ile Val Lys Ser Val Leu Ala Ala Ile Ala Arg Ser Asn Arg Pro
65 70 75 80
Glu Ser Thr Val Arg Tyr Ala Glu Pro Gly Glu Phe Thr Arg Arg Ala
85 90 95
Phe Met Asn Asn Arg Leu Asp Leu Pro Gln Ile Glu Ala Leu Gly Asp
100 105 110
Thr Leu Thr Ala Asp Thr Glu Gln Gln Arg Arg Leu Ala Val Arg Gly
115 120 125
Ala Ser Asp Thr Xaa Ser Arg His Tyr Glu Ser Trp Arg Gln Gln Leu
130 135 140
Leu Tyr Ala Arg Gly Glu Leu Glu Ala Leu Ile Asp Ser Pro Lys Ile
145 150 155 160
Ser Ile Ser Gln Lys Ser Pro Xaa Glu Ile Cys Pro Pro Pro Tyr His
165 170 175
Glu Gln Val Leu Arg Leu Gln Thr Pro Leu Glu Asn Ala Ser Leu Lys
180 185 190
Asn Ala Ser
195

<210> 30714
<211> 198
<212> PRT
<213> A.fumigatus

<400> 30714
Ser Leu Leu Ser Gln Trp Asn Asn Met Pro Ser Arg Ala Ser Tyr Ser
1 5 10 15
Phe Val Pro Leu Gln Gly Gly Gly Gln Glu Arg Pro Met Asp Ile His
20 25 30
Asn His Glu Asp Gln Arg Glu Ile Leu Leu Ala Ala Gln Leu Ser Arg
35 40 45
Ile Val Cys Arg Met Leu Glu Val Glu Gly Phe Arg Lys Leu Glu Arg
50 55 60
Asp Phe Tyr Asn Ile Lys Trp Lys Gln Ile Ser Gln Glu Thr His Leu
65 70 75 80
Arg Phe Leu Asn Gln Leu Gly His Ile Leu Leu Ser Leu Arg Trp Arg

```
                85                  90                  95
Val Ser Trp Trp Lys Arg Leu Gly Asp Gly Gly Arg Glu Pro Asp Pro
            100                 105                 110
Ser Lys Gln His Tyr Glu Asp Arg Val Glu Leu Leu Cys Arg Ile Leu
        115                 120                 125
Tyr Val Tyr Tyr Thr Cys Val Gln Ala Lys Leu Pro Ser Trp Ser Thr
    130                 135                 140
Ala Asp Val Pro Lys Gly Val Trp Ser Thr Tyr Ala Asp Ser Glu Asn
145                 150                 155                 160
Ala Val Trp Asp Asp Phe Pro Leu Asp Pro Ser Glu Asp Gly Phe Lys
                165                 170                 175
Arg Trp Met Glu Arg Gly Arg Glu Leu Ile Glu Gln Ala Gly Val Pro
            180                 185                 190
Asn Arg Val Ser Lys Ile
        195
```

<210> 30715
<211> 139
<212> PRT
<213> A.fumigatus

<400> 30715

```
Val Arg Leu Pro Pro Leu Asp Ala Phe Val Asn Pro Ala Ala Asn Ile
1               5                   10                  15
Leu Val Ser Glu Lys Asp Val His Arg Thr Asp Arg Thr Ile Pro Leu
            20                  25                  30
Phe Ala Gly Glu Asp Ile Pro His Pro Asp Pro Asp Ser Pro Phe Ala
        35                  40                  45
Asp Val Gly Thr Asn Val His Leu Glu Gln Met Lys Asp Met Leu Leu
    50                  55                  60
Thr Tyr Asn Glu Tyr Asn Pro Asp Leu Gly Tyr Val Gln Gly Met Ser
65                  70                  75                  80
Asp Leu Leu Ala Pro Ile Tyr Ala Val Met Gln Asp Asp Ala Val Ala
                85                  90                  95
Phe Trp Ala Phe Val Gly Phe Met Asp Arg Met Val Tyr Pro Thr His
            100                 105                 110
Ile Arg Pro Lys Ser Thr Leu Leu Thr Gln Thr Arg Asn Gly Ile Ser
        115                 120                 125
Phe Ala Ile Ser Leu Ala Cys Ala Pro Ser Ser
    130                 135
```

<210> 30716
<211> 259
<212> PRT
<213> A.fumigatus

<400> 30716

```
Ile Ser Gln Gly His Asp Ala Thr Ala Cys Pro Leu Gln Pro Gly Ala
1               5                   10                  15
Ser Ala Gly Arg Asp Ala Gly Met Ile Pro Leu Met Lys Ala Leu Arg
            20                  25                  30
Glu Thr Arg Trp Lys Val Leu Glu Gln Leu Ser Lys Ile Thr Thr Phe
        35                  40                  45
Thr Arg Arg Thr Ala Asn Glu Leu Pro Ile Asn Thr Met Ile Pro Pro
    50                  55                  60
Gln Val Arg Arg Leu Met Lys Ser Pro Glu Ile Gln Thr Leu Gln Asp
```

65 70 75 80
Glu Phe Asp Ser Ala Arg Leu Tyr Leu Ala Arg Trp Ala Met Ser Ile
85 90 95
Ala Glu Gln Ser Glu Arg Glu Arg Ala Gln Arg Ile Trp Thr Ala Arg
100 105 110
Asp Val Leu Glu Met Glu Asn Ser Ser Val Gly Asp Phe Glu Ile Leu
115 120 125
Glu Leu Glu Thr Gly Thr Met Ala Ile Gln Glu Arg Arg Arg Thr Val
130 135 140
Thr Leu Gln Glu Trp Glu Asp Phe Phe Asp Ala Thr Thr Gly Arg Leu
145 150 155 160
Asn Val Thr Val Asp Glu Val Lys Glu Arg Ile Phe His Gly Gly Leu
165 170 175
Asp Pro Asn Asp Gly Val Arg Lys Asp Ala Trp Leu Phe Leu Leu Gly
180 185 190
Val Tyr Pro Trp Asp Ser Ser Arg Asp Glu Arg Gln Ala Leu Met Asn
195 200 205
Ser Lys Arg Asp Glu Tyr Ile Arg Leu Lys Gly Ala Trp Trp Glu Arg
210 215 220
Met Ile Glu Gly Ser Ser Thr Thr Glu Gln Tyr Glu Trp Trp Lys Glu
225 230 235 240
Gln Lys Asn Arg Ile Gly Thr Leu Ala Ser Pro Gly Arg Ile Cys Lys
245 250 255
Ser Ser Cys

<210> 30717
<211> 281
<212> PRT
<213> A.fumigatus

<400> 30717
Pro Leu Ser Thr Asn Leu Arg Ser His Ala Gly Arg Cys Ser Gly Ile
1 5 10 15
Leu Gly Phe Cys Trp Ile His Gly Gln Asn Gly Ile Ser His Thr Tyr
20 25 30
Pro Ser Gln Ile Asn Thr Ala Tyr Thr Asp Gln Glu Arg Asn Phe Leu
35 40 45
Arg Asp Gln Ser Gly Met Arg Ala Gln Leu Leu Thr Leu Asp His Leu
50 55 60
Val Gln Leu Met Asp Pro Gln Leu Tyr Leu His Leu Gln Ser Ala Asp
65 70 75 80
Ser Thr Asn Phe Phe Phe Phe Phe Arg Met Leu Leu Val Trp Tyr Lys
85 90 95
Arg Glu Phe Glu Trp Val Asp Ile Leu Arg Leu Trp Glu Thr Leu Trp
100 105 110
Thr Asp Tyr Phe Ser Ser Ser Phe His Phe Phe Val Ala Leu Ala Ile
115 120 125
Leu Glu Lys His Arg Asp Val Ile Met Asp His Leu Lys His Phe Asp
130 135 140
Glu Val Leu Lys Tyr Gly Lys His Val Thr Ser Thr Leu Thr His Val
145 150 155 160
Thr Ser Leu Ile Phe Asn Leu Ile Val Asn Glu Leu Ser Asn Thr Met
165 170 175
Glu Leu Val Pro Ile Leu Thr Arg Ala Glu Ser Leu Phe Arg Arg Phe
180 185 190

```
Glu Arg Thr Val Glu Ala Ile Asp Lys Lys Asn Asn Phe Pro Ala Pro
        195                 200                 205
Ser Thr His Gln Arg Lys Pro Thr Gln Glu Ser Ala Leu Asn Lys Gly
    210                 215                 220
Lys Ser Pro Gln Arg Pro Gln Ser Val Gly Tyr Ser Ser Gly Val Ser
225                 230                 235                 240
Ala Gly Pro Ala Ser Ser Ser Ala Ala Gly Asp Asn Ala Glu Ser Lys
                245                 250                 255
Val Ile Ser Pro Glu Leu Arg Gln Leu Leu Ser Lys Glu Ile Leu Trp
            260                 265                 270
Lys Gln Pro His Pro Thr Ser Ser Lys
        275                 280
```

<210> 30718
<211> 626
<212> PRT
<213> A.fumigatus

<400> 30718

```
Leu Lys Ser Leu Pro Ser Phe Gln Ser Arg Gly Val Ala Glu Leu Pro
1               5                   10                  15
Ser Gln Gln Thr Thr Arg Ser Thr Arg Ser Ala Ser Leu Arg Gln Pro
            20                  25                  30
Ser Asp Glu Pro Thr Ser Gln Pro Ala Thr Arg Ser Thr Arg Ser Ala
        35                  40                  45
Ser Arg Gln Leu Ser Ala Glu Pro Ala Thr Glu Ser Asn Thr Arg Ser
    50                  55                  60
Thr Arg Lys Ala Arg Thr Arg Gln Ser Ser Ala Glu Pro Ser Thr Gln
65                  70                  75                  80
Thr Thr Ser Arg Ser Arg Ser Arg Arg Ala Gly Asn Gly Val Met Ala
                85                  90                  95
Ser Ile Glu Glu Ala Pro Thr Thr Gln Thr Arg Thr Arg Lys Thr Ser
            100                 105                 110
Thr Arg Arg Ser Thr Arg Gln Ser Thr Gln Lys Thr Ser Asp Asp Glu
        115                 120                 125
Thr Asp Pro Thr Asp Ala Glu Gln Ala Ser Gln Pro Gly Ser Val Val
    130                 135                 140
Asp Glu Thr Ser Ala Ala Gln Glu Ser Leu Glu Leu Gln Asp Ser Glu
145                 150                 155                 160
Pro Ile Pro Ser Ile Gly Glu His Ala Leu Ser Glu Pro Lys Ala Ser
                165                 170                 175
Asp Ser Glu Leu Ser Ser Ile Pro Phe Pro Glu Ala Val Val Pro Glu
            180                 185                 190
Pro Tyr Pro Glu Pro Tyr Pro Glu Pro Trp Pro Ser Ser Pro Ser Leu
        195                 200                 205
Ser Pro Ser Pro Pro Leu Pro His Val Ser Leu Pro Ser Ser Pro Leu
    210                 215                 220
Leu Pro Asp Thr Glu Phe Pro His Arg Ser Arg Ala Ala Ala Pro Ser
225                 230                 235                 240
Pro Glu Ala Pro Tyr Pro Gln Gly Ala Glu Ser Pro Lys Thr Phe Val
                245                 250                 255
Lys Asp Val Ser Gly Ala Pro Ala Asp Thr Trp Tyr Leu Asp Pro Leu
            260                 265                 270
Glu Asp Met Ser Asp Ile Gly Ser Pro Leu Ser Glu Arg Ser His Thr
        275                 280                 285
Pro Asp Leu Glu Met Glu Asp Ser Pro Pro Leu Arg Ser Val Leu Asn
```

```
    290                 295                 300
Glu Ser Leu Leu Ala Asp Ile Asp Ala Cys Leu Ala Arg His Met Gln
305                 310                 315                 320
Val Glu Leu Ala Ala Ala His Asn Thr Ala Arg Asp Asp Leu Asp Ser
                325                 330                 335
Ile Met Ala Asp Glu Cys Gly Ser Asp Ala Asp Val Leu Leu Leu Ser
            340                 345                 350
Ser Glu Glu Tyr Asn Thr Gln Pro Pro Ala Val Thr Glu Ala Ser Thr
        355                 360                 365
Gly Ser Thr Ile Ala Ala Arg Leu Phe Leu Val Ala Met Glu Gly Ile
    370                 375                 380
Glu Phe Glu Glu Glu Arg Tyr Cys Arg Ser Pro Met Ser Val Cys Gly
385                 390                 395                 400
Gln Ser Ser Ser Glu Leu Asp Asp Ser Pro Met Val Asp Glu Glu His
                405                 410                 415
Thr Ala Pro Ile Asp Val Ser Trp Ile Ser Ser Gly Glu Ser Ser Arg
            420                 425                 430
Glu Gly Ser Leu Ser Pro Leu Pro Pro Val Asp Arg Asp Glu Glu Val
        435                 440                 445
Pro Ile Pro Ser Ile Val Ala Ala Val Ser Ser Pro Ile Asp Asn Glu
    450                 455                 460
Val Ala Ala Leu Thr Arg Ser Phe Ser Gly Leu Cys Leu Ala Asp Thr
465                 470                 475                 480
Ala Tyr Gly Gly Thr Pro Ala Ala Ser Ala Thr Leu Leu Leu Ser Tyr
                485                 490                 495
Met Leu Ala Ser Thr Gly Gln Val Gln Gln Asp Ala Thr Phe Asp Val
            500                 505                 510
Pro Thr Glu Ser Gly Thr Thr Ser Thr Phe Ser Asp Gly Arg Leu Val
        515                 520                 525
Ser Val Lys Val Ser Glu Leu Ile Pro Gly Pro Ser Arg Ser Arg Pro
    530                 535                 540
Ala Ala Ala Glu Val Asp Lys Ser Arg Gln Val Ser Arg Ser Ala Arg
545                 550                 555                 560
Lys Asn Ser Ala Arg Trp Ala Arg Val Ala Leu Ser Pro Ile Pro Glu
                565                 570                 575
Glu Ser Glu Val Met Ser Ser Arg Ser Gly Leu Gly Val Gly Ala Lys
            580                 585                 590
Glu Ser Val Asp Pro Pro Ser Leu Ser Leu Ser Ala Thr Ser His Leu
        595                 600                 605
Leu Glu Leu Leu Gly Cys Arg Arg Val Glu Ala Gly Ala Ser Gly Thr
    610                 615                 620
Arg Leu
625
```

<210> 30719
<211> 198
<212> PRT
<213> A.fumigatus

<400> 30719

```
Leu Gly Asn Leu Tyr Ser Gln Pro Arg Gln Cys Ile Gly Cys Val Ser
1               5                   10                  15
Pro Tyr Tyr Leu Ile Leu Leu Val Arg Trp Ser Ser Ser Ser Ser His
            20                  25                  30
Glu Ser Val Asn Ser Arg Tyr Glu Pro Tyr Ala Arg Gly Ala Lys Asp
        35                  40                  45
```

```
Asp Val Phe Ile Lys Asn Pro Asp Gly Thr Leu Tyr Ile Gly Ala Val
    50                  55                  60
Trp Pro Gly Phe Thr Val Phe Pro Asp Trp His Asn Pro Lys Ala Phe
65                  70                  75                  80
Asp Tyr Trp Ala Asn Glu Leu Val Ile Trp Ser Lys Lys Val Ala Phe
                85                  90                  95
Asp Gly Ile Trp Ile Asp Met Ser Glu Val Ser Ser Phe Cys Val Gly
            100                 105                 110
Ser Cys Gly Thr Gly Lys Leu His Leu Asn Pro Val His Pro Pro Phe
        115                 120                 125
Gln Leu Leu Gly Glu Pro Gly Asn Val Gly Tyr Asp Tyr Pro Glu Ala
    130                 135                 140
Phe Asn Val Thr Asn Ser Thr Glu Thr Gly Ser Ala Ser Ala Ala Ser
145                 150                 155                 160
Gly Asn Gln Ala Ser Ala Ala Ser Ala Thr Gln Ala Ala Thr Thr Phe
                165                 170                 175
Thr Ser Thr Ser Tyr Leu Pro Asp Asn Pro Thr Arg Ala Phe Ala Thr
            180                 185                 190
Ser Thr Thr Leu Gln Met
        195
```

<210> 30720
<211> 398
<212> PRT
<213> A.fumigatus

```
<400> 30720
Leu Ile Met Phe Arg Arg Ala Met Thr Leu Pro Cys Thr Pro Phe Leu
1               5                   10                  15
Pro Thr Pro Pro Met Trp Asn Gly Val Gln Glu Tyr Asp Val His Ser
            20                  25                  30
Leu Trp Gly His Gln Ile Leu Asn Ala Thr Tyr Tyr Gly Leu Arg Gln
        35                  40                  45
Val Phe Thr Glu Lys Arg Pro Phe Ile Ile Gly Arg Ser Thr Phe Ala
    50                  55                  60
Gly Ser Gly Lys Trp Ala Gly His Trp Gly Gly Asp Asn Asn Ser Lys
65                  70                  75                  80
Trp Gly Ser Met Phe Leu Ser Ile Ser Gln Gly Leu Ser Phe Ser Leu
                85                  90                  95
Phe Gly Ile Pro Met Phe Gly Val Asp Thr Cys Gly Phe Asn Gly Asn
            100                 105                 110
Thr Asp Glu Glu Leu Cys Ser Arg Trp Met Gln Leu Ser Ala Phe Phe
        115                 120                 125
Pro Phe Tyr Arg Asn His Asn Val Leu Ala Ala Ile Pro Gln Glu Pro
    130                 135                 140
Tyr Arg Trp Ala Ser Val Ala Gln Ala Ser Lys Ala Ala Met Lys Ile
145                 150                 155                 160
Arg Tyr Ser Leu Leu Pro Tyr Phe Tyr Thr Leu Phe His Gln Ala His
                165                 170                 175
Thr Thr Gly Ser Thr Val Met Arg Ala Leu Ala Trp Glu Phe Pro Thr
            180                 185                 190
Asp Pro Ser Leu Ala Ala Val Asp Thr Gln Phe Met Val Gly Pro Ser
        195                 200                 205
Ile Met Val Val Pro Val Leu Glu Pro Leu Ala Asp Thr Val Lys Gly
    210                 215                 220
Val Phe Pro Gly Val Gly Lys Gly Glu Val Trp Tyr Asp Trp Tyr Thr
```

225 230 235 240
Gln Thr Ala Val Asp Ala Lys Pro Gly Val Asn Ala Thr Ile Pro Ala
245 250 255
Pro Leu Gly His Ile Pro Ile Tyr Val Arg Gly Gly Ser Ile Leu Pro
260 265 270
Met Gln Glu Pro Ala Leu Thr Thr Arg Asp Ala Arg Asn Thr Pro Trp
275 280 285
Ser Leu Leu Val Ala Leu Ser Gly Asn Gln Thr Ala Leu Gly Ser Leu
290 295 300
Tyr Leu Asp Asp Gly Ser Ser Leu Asn Pro Ser Arg Thr Leu Asp Val
305 310 315 320
Asp Phe Gln Ala Thr Ala Ser Ser Ile Lys Val Ser Val Lys Gly Thr
325 330 335
Trp Glu Glu Lys Asn Arg Leu Asp Lys Val Thr Val Leu Gly Val Thr
340 345 350
Glu Lys Pro Ser Ala Val Thr Phe Asn Gly Arg Asn Val His Pro Gly
355 360 365
Ser Val His Tyr Asn Thr Thr Thr Lys Val Leu Ser Val Gln Gly Leu
370 375 380
His Ser Ser Leu His His Gly Ala Gly Arg Ser Arg Ala Ile
385 390 395

<210> 30721
<211> 85
<212> PRT
<213> A.fumigatus

<400> 30721
Asp Ser Ser Gly Ile His Leu Val Ser Arg Ile Ser Glu Phe Leu His
1 5 10 15
Ile Val Leu Val Ser Phe Ile Tyr Leu Pro Ala Arg Ser Asp Ile Asp
20 25 30
Tyr Met Leu Gly Tyr Arg Asp Phe Glu Asn Asp Pro Glu Arg Phe Ser
35 40 45
Tyr Asp Glu Gly Glu Glu Phe Leu Asn Lys Leu His Lys Ser Gly Arg
50 55 60
His Trp Val Pro Ile Val Asp Ser Ala Ile Tyr Ile Pro Asn Pro Asp
65 70 75 80
Asn Ala Ser Asp Ala
85

<210> 30722
<211> 135
<212> PRT
<213> A.fumigatus

<400> 30722
Arg Ser Ala Ile Pro Ser Tyr Leu Thr Ser Thr Leu Phe Ser Thr Arg
1 5 10 15
Pro Thr Pro Pro Ala Leu Pro Ser Cys Ala Leu Ser Pro Gly Ser Ser
20 25 30
Pro Arg Thr Arg Pro Ser Pro Pro Ser Thr Leu Ser Ser Trp Ser Ala
35 40 45
Leu Pro Ser Trp Ser Ser Pro Cys Leu Ser Pro Ser Pro Ile Pro Ser
50 55 60
Arg Ala Cys Ser Gln Ala Ser Ala Lys Ala Lys Ser Gly Thr Thr Gly

```
65                  70                  75                  80
Thr Pro Arg Pro Pro Trp Thr Pro Asn Pro Ala Ser Thr Pro Pro Phe
                85                  90                  95
Pro His Arg Trp Ala Thr Phe Pro Ser Met Ser Val Glu Ala Ala Ser
            100                 105                 110
Cys Pro Cys Arg Ser Pro Pro Ser Arg Pro Glu Thr Pro Val Thr Leu
        115                 120                 125
Pro Gly Leu Tyr Ser Ser Leu
    130                 135
```

<210> 30723
<211> 160
<212> PRT
<213> A.fumigatus

<400> 30723

```
Cys Thr Lys Ser Thr Ser Leu Gln Ser Ala Leu His Ser Asn Ile Tyr
1               5                   10                  15
Gly Gln His Pro Phe Tyr Leu Asp Thr Arg Tyr Tyr Thr Lys Gly Ala
            20                  25                  30
Asn Gly Ser Tyr Ser Leu Val Asn Ala Asp Glu Ala Asp Leu Ser Glu
        35                  40                  45
Asp His Glu Ser Phe Ser His Gly Val Phe Leu Arg Asn Ala His Gly
    50                  55                  60
Gln Glu Val Leu Leu Gln Pro Arg Asn Ile Thr Trp Arg Thr Ile Gly
65                  70                  75                  80
Gly Ser Ile Asp Leu Thr Phe Tyr Ser Gly Pro Thr Gln Ala Asp Val
                85                  90                  95
Thr Lys Ser Tyr Gln Leu Ser Thr Ile Gly Leu Pro Ala Met Gln Gln
            100                 105                 110
Tyr Ser Ala Leu Gly Tyr His Gln Cys Arg Trp Gly Tyr Gln Asn Trp
        115                 120                 125
Ser Gln Leu Glu Glu Val Val Asn Asn Phe Glu Arg Phe Glu Ile Pro
    130                 135                 140
Leu Glu Tyr Ile Trp Ser Val Gly Phe Leu Ser Phe Tyr Ile Leu Ser
145                 150                 155                 160
```

<210> 30724
<211> 117
<212> PRT
<213> A.fumigatus

<400> 30724

```
Thr Trp Gln Cys Arg Leu Arg Leu Pro Arg Gly Leu Gln Arg Asp Glu
1               5                   10                  15
Leu Tyr Arg Asn Gly Leu Cys Leu Arg Arg Leu Trp Gln Ser Gly Phe
            20                  25                  30
Gly Cys Phe Cys Tyr Pro Ser Arg His Asp Val His Ile Tyr Ile Val
        35                  40                  45
Ser Ala Gly Gln Pro His Pro Gly Val Arg Asp Val Asn Tyr Pro Pro
    50                  55                  60
Asp Val Ile Asn His Val Gln Glu Gly His Asp Leu Ala Val His Ala
65                  70                  75                  80
Ile Ser Pro Asn Ser Thr His Val Glu Arg Arg Pro Gly Ile Arg Cys
                85                  90                  95
Ser Gln Ser Val Gly Pro Pro Asn Pro Gln Cys Tyr Leu Leu Arg Thr
```

100 105 110
Ala Pro Gly Leu His
115

<210> 30725
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30725
Pro Leu Ser Cys His Arg Cys His Ala His Lys Ile Lys Cys Ser Gly
1 5 10 15
Glu Gln Pro Cys Ala Lys Cys Arg Met Val Gly Lys Ser Asp Glu Cys
20 25 30
Thr Tyr Thr Arg Arg Asp Arg Gln Val Lys Val Ser Glu Arg Tyr Ser
35 40 45
Gly Asp Ile Pro Tyr Leu Ile Thr Val Ser Lys Thr Leu Glu Arg Thr
50 55 60
Ala Cys Cys
65

<210> 30726
<211> 61
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (42),(58),(59)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30726
Gln Glu Ser Asn Gln Pro Cys Ser Thr Ser Tyr Thr Leu Leu Leu Val
1 5 10 15
Asp Pro Asp Ala Pro Thr Pro Asp Asp Pro Lys Tyr Ala Phe Trp Arg
20 25 30
His Trp Val Ile Ser Gly Leu Lys Ala Xaa Glu Gly Asp Ser Gly Thr
35 40 45
Ala Leu Thr Glu Tyr Leu Gly Pro Gly Xaa Xaa Glu Lys
50 55 60

<210> 30727
<211> 179
<212> PRT
<213> A.fumigatus

<400> 30727
Arg Leu Leu Ser Tyr Glu Glu Pro Lys Tyr Thr Val Asn Gly Gln Thr
1 5 10 15
Lys Ser Ser Leu Asp Thr Pro His Ile Val Tyr His Gln Ile Ala Gln
20 25 30
Asp Gly Ala Ser Ser Ile Phe Pro Pro Val Thr Ser Ser Ile Ser Asn
35 40 45
Pro Gln Ala Phe Asn Arg Leu Tyr Ile Ile Val Thr Leu Pro Phe Thr
50 55 60
Pro Cys Pro Thr Glu Ser Thr Leu Ser Leu Thr Lys Met Ser Leu Glu

65 70 75 80
Ser His Thr Gln Gln Leu Thr Gln Ser Leu Ala Gln Ala Asn Leu Thr
85 90 95
Pro Gly Leu Leu Pro Phe Leu Pro Pro Asp Phe Asn Pro Thr Thr Gln
100 105 110
Leu His Val Ser Phe Asn Asp Lys Pro Val Ser Leu Gly Asn Leu Phe
115 120 125
Arg Ala Ser Glu Cys Lys Thr Ala Pro Ser Val Ser Phe Pro Lys Glu
130 135 140
Val Gly Arg Thr Leu Pro Ile Ala Leu Ser Pro Ala Pro Arg Ser Leu
145 150 155 160
Ile Gly Ile Thr Gly Glu Gln Ser Thr Met Leu Asp Lys Leu Tyr Pro
165 170 175
Pro Pro Ser

<210> 30728
<211> 114
<212> PRT
<213> A.fumigatus

<400> 30728
His Leu Gln Pro Tyr Tyr Tyr Gln Ile Tyr Tyr Lys Thr Thr Asn Gly
1 5 10 15
Ser Thr Thr Lys Gln Ile Ile Met Pro Asn Asn Asn Phe Ser Ser Ser
20 25 30
Gln Asp Ala Gly Val Thr Gly Ala Ala Lys Phe Val Thr Ser Thr Val
35 40 45
Gly Asn Thr Val Gly Gly Val Ser Arg Thr Val Gly Gly Val Thr Gly
50 55 60
Ala Ala Ala Arg Gly Val Gly Gly Thr Ile Thr Ser Ala Thr Gly Ser
65 70 75 80
Ala Gly Lys Pro Val Gly Asp Ala Leu Gly Ser Val Gly Thr Gly Val
85 90 95
Glu Asp Ala Ala Asn Arg Val Ala Lys Gly Val Glu Asp Ala Gly Gln
100 105 110
Trp Arg

<210> 30729
<211> 466
<212> PRT
<213> A.fumigatus

<400> 30729
Gly Asn Cys Lys Phe Gly Ala Lys Cys Ala Leu Ala His Ile Leu Pro
1 5 10 15
Asp Gly Arg Arg Val Asn Arg Pro Thr Pro Gly Met Gly Met Gly Gly
20 25 30
Gly His Leu Asn Leu Gly Gly Arg Val Asn Pro Gln Ala Tyr Val Asn
35 40 45
Gln Asp Ser Ala Leu Thr Asn Ser Val Leu Ser Gln Gln Arg Leu Gly
50 55 60
Ile His Asp Pro Arg Tyr Ala Ser Gln Leu Pro Pro Gln Glu Asp Phe
65 70 75 80
Ser Thr Leu Gln Gln Gln Gln Gln Gln Pro His Pro Pro Pro Phe

```
                85                  90                  95
Asp Ala Ile Pro Thr Ile Asp Ala Gly Leu Ala Ser Asp Ala Gly Ser
            100                 105                 110
Lys Tyr Gly Ser Pro Ala Glu Asp Thr Arg Phe Pro Met Ser Pro Ser
        115                 120                 125
His Arg Tyr Leu Thr Ala Leu Asp Ala Gln Leu Pro Ala Ser Phe Asp
    130                 135                 140
Ser Gln Gly Ile Ser His Val Ala Arg Tyr Gly Pro Val Ala Ala Ser
145                 150                 155                 160
Val Pro Ser Lys Phe Gly Leu Asp Leu Ala Ser Pro Pro Ala Gln Arg
                165                 170                 175
Met Gly Gly Pro Ser Asp Val Leu Arg Asn Leu Arg Asp Thr Ala Tyr
            180                 185                 190
Gly Ser Asp Phe Arg Lys Pro Ser Ser Phe Met Gly Ser Ser Pro Pro
        195                 200                 205
Gly Ile Ser Glu Asp Gly Val Gly Pro Arg Phe Leu His Ser Ala Arg
    210                 215                 220
Pro Val Lys Ser Arg Met Leu Ser Ala Ser Val Pro Arg Pro Thr Ala
225                 230                 235                 240
Leu Asp Asp Trp Asp Asp Ser Asn Phe Pro Met Glu Glu Asp Tyr Leu
                245                 250                 255
Pro Ile Asn Leu His Asp Asp Val Leu Thr Pro Gln Glu Lys Leu Arg
            260                 265                 270
Arg Leu Ser Arg Thr Asp His Asp Leu Ser Ser Ser His Arg Asp Leu
        275                 280                 285
Ser Gly Leu Gly Met Thr Ser Thr Ser Phe Ser Lys Val Gly Ser Pro
    290                 295                 300
Leu Ala Ser Ser Pro Ser Arg Phe Gly Ala Leu Phe Ala Lys Gln Arg
305                 310                 315                 320
Gln Gln Lys Lys Asp Glu Asp Ser His Gly Thr Ser Phe Ser His Ile
                325                 330                 335
Gly Ser Pro Leu Arg Glu Ser Ser Leu Asn Leu Gly Thr Ser Pro Ser
            340                 345                 350
Leu Gly Pro Ile Gly Ser Arg Gln Ile Ser Gly Asp Val Ser Pro Tyr
        355                 360                 365
Val Thr Ser Pro Gly Arg Gln Ser Ser Thr Ser Met Ile Ser Gln Gln
    370                 375                 380
Leu Ser Ser Met Ser Leu His Pro Ala Pro Thr Arg His Ser Pro Ala
385                 390                 395                 400
Val Gly Ser Asn Ser Arg Leu Asp Arg Thr Ile Ser Ser Pro Val Ser
                405                 410                 415
Thr Ser Lys Ile Asp Glu Glu Gln Ser Asp Leu Val Phe Ser Met Glu
            420                 425                 430
Glu Glu Asp Ser Thr Lys Arg Asn Ser Thr Ser Trp Ala Thr Asn Lys
        435                 440                 445
Ala Glu Ser Asn Asp Gly Ala Ser Thr Pro Thr Ser Asn Ser Gly Phe
    450                 455                 460
Gln Pro
465
```

<210> 30730
<211> 156
<212> PRT
<213> A.fumigatus

<400> 30730

```
Gly Glu Ala Gln Gly Ala Met Met Val Phe Phe Cys Leu Pro Leu Trp
1               5                  10                  15
Leu Met Leu Val Leu Met Arg Glu Thr Ser Glu Glu Gln Pro Pro His
            20                  25                  30
Asp Ala Asn Asn Gly Trp Glu Glu Ile Arg Leu Ser Ala Arg Ser Phe
        35                  40                  45
Tyr Leu Pro Leu Arg Leu Leu Phe Thr Asp Tyr Val Ile Leu Ser Leu
    50                  55                  60
Thr Val Tyr Thr Ser Phe Ser Tyr Ala Thr Val Phe Ser Tyr Phe Ser
65                  70                  75                  80
Ser Leu Gln His Val Leu Met Leu Asp Tyr Gly Phe Gly Thr Arg Gln
                85                  90                  95
Ala Ser Leu Gly Leu Leu Ser Leu Ile Val Gly Asn Phe Cys Ala Ile
            100                 105                 110
Ile Leu Trp Val Val Leu Glu Lys Ala Val Thr Ser Ser Glu Glu Lys
        115                 120                 125
Leu Pro Gly Lys Val Phe Gln Pro Glu Lys Arg Leu Tyr Ala Gly Val
    130                 135                 140
Ile Gly Gly Leu Leu Met Cys Leu Ala Glu Ile Trp
145                 150                 155
```

<210> 30731
<211> 131
<212> PRT
<213> A.fumigatus

<400> 30731

```
Leu Ser Thr Ile Ala Tyr Ile Ile Asp Ile Tyr Pro Ala Glu Val Val
1               5                  10                  15
Ala Ser Gly Lys Gln Ser Leu Arg Ser Ser Ile Gln Lys Ser Tyr Lys
            20                  25                  30
Lys Trp Leu Tyr Leu Ala Ile Ala Ala Asn Gly Val Ser Arg Tyr Thr
        35                  40                  45
Leu Gly Ala Val Phe Pro Leu Phe Thr Leu Gln Met Tyr Glu Lys Leu
    50                  55                  60
Gly Thr Thr Trp Ala Ser Cys Leu Phe Ala Ile Ile Ser Cys Val Leu
65                  70                  75                  80
Ile Phe Ile Pro Leu Phe Val Cys Lys Tyr Gly Val Arg Leu Arg Thr
                85                  90                  95
Thr Met Thr Val Gly Ala Thr His Gly Asn Ser Ile Asn Arg Asp Ala
            100                 105                 110
Lys Asn Val Asp Thr Thr Ile Thr Glu Leu Cys Tyr Thr Glu Leu Ser
        115                 120                 125
Val Ala Ile
    130
```

<210> 30732
<211> 78
<212> PRT
<213> A.fumigatus

<400> 30732

```
Pro Gln Ile Ile Cys Leu Cys Ser Leu Asn Pro Asn His Gly Pro Glu
1               5                  10                  15
Ile Tyr Gln Ile Val His Thr Gln Lys Pro Lys Pro Leu Arg Pro Leu
            20                  25                  30
```

```
Phe Val Gly Leu Val Thr His Gln His Gly His Gly Cys Gly Pro Gln
        35                  40                  45
Gly Leu His Ser Ala Val Leu Leu Pro Asp Val Val Cys Gly Tyr Gly
    50                  55                  60
Leu Cys Gln Leu Ile Glu Pro Asn Thr Leu Glu Asp Asn Ala
65                  70                  75
```

<210> 30733
<211> 69
<212> PRT
<213> A.fumigatus

<400> 30733

```
Ala Ala Gly Gly Ser Gln Arg His Tyr Ile Ile Thr Asn Pro Asp Arg
1               5                   10                  15
Pro Gln Gly Arg Gln Ala Ser Asp Thr Cys Leu Arg Asp Asn Val Arg
            20                  25                  30
Thr Phe Tyr Pro Leu Tyr Ile Leu Ser Phe Val Tyr Thr Val Tyr Ser
        35                  40                  45
Phe Trp Thr Leu Phe Ser Phe Glu Thr Leu Asn Ile Arg Pro Glu His
    50                  55                  60
Ile Ser Ala Ile Val
65
```

<210> 30734
<211> 516
<212> PRT
<213> A.fumigatus

<400> 30734

```
Ser Leu Val Asp Ala Val Ala Gly Leu Val Glu Lys Asp Ile Asp Phe
1               5                   10                  15
Val Phe Asp Ala Leu Asp Gly Lys Thr Thr Glu Pro Lys Asp Arg Glu
            20                  25                  30
Glu Glu Lys Ala Asn Met Pro Asn Gly Lys Ala Val Asp Lys Lys His
        35                  40                  45
Asp Ile Asn Tyr Arg Asp Glu Pro Val Ala Phe Phe Phe Val Leu Phe
    50                  55                  60
Gly Leu Ala Phe Glu Ala Leu Val Asp Gln Ser Thr Thr Pro Ser Gln
65                  70                  75                  80
Arg Leu Asp Ile Leu Gln Ala Leu Lys Arg Ile Leu Arg Pro Val Ile
                85                  90                  95
Ser Gly Asn Ala Ile Tyr Gln Asp Ala Ile Phe Ser Glu Thr Met Asp
            100                 105                 110
Thr Phe Asp Arg Leu Ala Leu Thr Glu Gly Thr Pro Ile Gln Thr Val
        115                 120                 125
Ile Val Glu Ile Ala Arg Asn Leu Ser Leu Asp His Pro Ser Ala Lys
    130                 135                 140
Ala Gly Asp Ala Arg Ser Asp His Leu Ser Asp Asp Ile Glu Gln Leu
145                 150                 155                 160
Phe Glu Leu Thr Arg Ser Ile Ile Leu Val Leu Ala Gly Leu Leu Pro
                165                 170                 175
Asn Leu Gly Glu Asn Thr Ser Val Ala Arg Phe Asn Val Thr Ser Asp
            180                 185                 190
Asp Ser Leu Ser Leu Ile Arg Leu Ala Leu Ser Ser Leu Val Gln Val
        195                 200                 205
```

```
Ala Ser Ile Phe Pro Ser Ile Ile Arg Asn Asp Leu Asn Ala Cys Ile
    210                 215                 220
Leu His Ile Phe Thr Thr Ile Leu Ala Thr Gly Leu Cys Gln Ala Glu
225                 230                 235                 240
Val Val Pro Gln Ala Leu Pro Thr Phe Lys His Phe Ile His Gly Ile
                245                 250                 255
Ile His Pro Lys Ala Ser Val Ser Asp Glu Ala Gln Asp Leu Ala Ile
            260                 265                 270
Val Ser His Gln Leu Arg Gly Cys Leu Thr Arg Phe Leu Thr Thr Leu
        275                 280                 285
Thr Ile Ala Gln Arg Arg Glu Ser Glu Ser Ser Leu Pro Cys Ala Lys
    290                 295                 300
Asn Thr Leu Leu Ala Ile Thr Ile Leu Leu Thr Thr Gly Gly His Ile
305                 310                 315                 320
Leu Pro Pro Gln Asp Pro Ala Ile Pro Arg Val Leu Asn Glu Leu Leu
                325                 330                 335
Asp Cys Leu Gln Asp Val Gly Leu Ala Asn Val Ala Ala Gly Cys Ile
            340                 345                 350
Arg Ser Ile Leu Leu Thr Ser Thr Ser Arg Ser Pro Thr Asn Asp Leu
        355                 360                 365
Ile Ala Lys Tyr Leu Leu Pro Arg Leu Ile Ala Phe Leu Val Gly Cys
    370                 375                 380
Pro Leu Asp Lys Gly Glu Ile Pro Ser Asp Pro Glu Asn Ser Arg Thr
385                 390                 395                 400
Val Ile Ala Arg Thr Leu Val Ser Tyr Ala Thr Ser Ala Thr Phe Ala
                405                 410                 415
Ala Ser Glu Leu Pro Thr Ala Phe Ser Ile Val Met Ser Ala Leu Leu
            420                 425                 430
Ala Arg Ala Lys Arg Glu Ser Tyr Pro Val Tyr Arg Glu Thr Ala Ala
        435                 440                 445
His Leu Leu Glu Leu Ala Arg Ala Asp Gln Ala Thr Phe Arg Ala Leu
    450                 455                 460
Val Ala Ser Met Lys Pro Asp Gln Lys Gly Leu Leu Glu Glu Ile Leu
465                 470                 475                 480
Arg Ser Ser Asp Pro Gly Thr Gly Ala Gly Ala Gly Arg Ala Glu Thr
                485                 490                 495
Asn Gly Ala Gln Ser Glu Ala Ser Gln Ser Met Pro Ser Ile Ala Leu
            500                 505                 510
Arg Leu Asp Phe
        515
```

<210> 30735
<211> 113
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (13),(37),(53)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30735

```
Thr Leu Tyr Gln Ser Phe Asn Met Lys Asn Val Ser Xaa Ala Thr Val
1               5                   10                  15
Leu Leu Ser Leu Ser Gly Ser Leu Thr Ala Ala Trp Asn Val Thr Ala
            20                  25                  30
```

```
Tyr Gly Asn Ala Xaa Cys Thr Gly Tyr Leu Thr Ser Ile Ala Gly Glu
        35                  40                  45
Gln Gly Trp Gly Xaa Tyr Trp Leu Ser Gly Val Thr Lys Pro Ile Gln
    50                  55                  60
Ala Met Ser Val Glu Asp Leu Pro Glu Gly Trp Arg Phe Ile Ala Ser
65                  70                  75                  80
Ser Gly Thr Ala Cys Asp Ala Phe His Gln Ala Gly Gly Asn Gly Cys
                85                  90                  95
Tyr Thr Gln Ser Gln Gly Phe Gln Ser Phe Gln Ile Ile Gly Ser Ser
            100                 105                 110
Ser
```

<210> 30736
<211> 546
<212> PRT
<213> A.fumigatus

```
<400> 30736
Trp Trp Thr Val Tyr Lys Asn Ala Leu Leu Ala Ser Asn Ser Leu Leu
1               5                   10                  15
Ser Leu Asp Gln His Phe Thr Val Ser Pro Thr Asn Thr Val Asp Phe
            20                  25                  30
His Thr Asn Leu Thr Arg Gln Ala Pro Ser Lys Thr Phe Glu Asn His
        35                  40                  45
Lys Met Asp Met Gln Glu Gly Ser Val Ala Ser Ala Asn Asn Pro Glu
    50                  55                  60
Asn Ala Ala Asp Asn Phe Ser Pro Leu Ser Met Leu Pro Pro Glu Cys
65                  70                  75                  80
Leu Val Asn Ile Leu Asp His Leu Asp Thr Ala Asp Asn Leu Ala Val
                85                  90                  95
Ser Asn Val Ser Lys Asp Leu Arg Lys Trp Ala Lys Pro Leu Val Phe
            100                 105                 110
Arg Asp Ile Leu Trp Ala Tyr Thr Ser Thr Pro Leu Arg Arg Val Leu
        115                 120                 125
Leu Leu Leu Glu Gln Ile Phe Leu Asn Pro Gln Cys Ala Gly Tyr Val
    130                 135                 140
Lys His Leu Gln Leu Thr Tyr Thr Gly Pro Ala Trp Ile Met Pro Asp
145                 150                 155                 160
Pro Asp Ile Asp Phe Arg Gln His Ala Thr Arg Phe Ala Phe Val Ser
                165                 170                 175
Arg Lys Ala Ile Gln Phe Val Ser Gln Ile Gly Leu Phe Asp Thr Val
            180                 185                 190
Gly Tyr Ala Ala Leu Leu Tyr Gln Gly Asp Tyr Tyr Ala Tyr Ala Ala
        195                 200                 205
Val Leu Met Phe Gln Leu His Asn Leu Arg Val Leu Glu Leu Asp Tyr
    210                 215                 220
Thr Tyr Thr Leu Val Gly Gly Tyr Pro Gly Leu Phe Leu Gln Ile Ala
225                 230                 235                 240
Leu Arg Ser Ser Phe Glu Gly Ile Ser Arg Phe Asn Arg Leu Glu Lys
                245                 250                 255
Leu Lys Tyr Gly Gly Asp Val Pro Gln Ala Glu Lys Leu Asp Asp Glu
            260                 265                 270
Ala Glu Glu Ala Val Ala Ala Ile Pro Val Leu Glu Asn Thr Asp Gln
        275                 280                 285
Phe Ala Pro Trp Phe Ala Leu Pro Lys Leu Lys His Val Glu Met Trp
```

```
    290                 295                 300
Leu Arg Ser Thr Phe Glu Leu Asp Lys Tyr Lys Asp Gln Leu Ala Gly
305                 310                 315                 320
Arg Glu Leu Glu Ser Leu Val Leu Ala Arg Ser Ser Val Asp Ala Ala
                325                 330                 335
Asp Ile Lys Glu Ile Leu Ser Ala Cys Pro Lys Leu Arg Lys Leu His
            340                 345                 350
Leu Gly Val Ser Tyr Asn Leu Val Ser Lys Leu Ala Leu Leu Asp Ser
        355                 360                 365
Lys Glu Leu Ala Asp Ala Leu Lys Pro Leu Lys Asp Arg Leu Glu Thr
    370                 375                 380
Leu Ser Ile Gly Leu Asp Thr Asp Pro Ser Phe Val Gly Gly Phe Ser
385                 390                 395                 400
Trp Glu Gln Asp Asn Thr Phe Gly Ser Thr Leu Thr Asp Pro Phe Leu
                405                 410                 415
Met Leu Phe Ser Glu Phe Thr Lys Leu Gln Glu Leu Glu Val Pro Met
            420                 425                 430
Pro Leu Leu Leu Gly Trp Phe Ser Asn Glu Asn Trp Ala Asp Phe His
        435                 440                 445
Lys Tyr Leu Pro Pro Lys Leu Arg His Leu Val Met Arg Asn Asp Leu
    450                 455                 460
Ser Gly Phe Asp Asn Tyr Thr Trp Asp Pro Tyr Gly Met Val Phe Ala
465                 470                 475                 480
Val Asp Gln Arg Ile Val Glu Thr Lys Lys Arg Ile Pro Ser Leu Glu
                485                 490                 495
Arg Val Thr Leu Arg Val Trp Ala Thr Asn Pro Arg Arg Pro Asn Glu
            500                 505                 510
Asp Phe Leu Ala Glu Ala Ala Asp Met Ala Gln Ser Val Gly Val Gln
        515                 520                 525
Cys Asp Leu Val Val Asp Glu Leu Gly Ser Gly Leu Trp Val Ala Arg
    530                 535                 540
Ala Ser
545
```

<210> 30737
<211> 69
<212> PRT
<213> A.fumigatus

```
<400> 30737
Leu Ile Gly Ala Ala Leu Pro Pro Arg Gly Glu Asp Pro Leu Ala Glu
1               5                   10                  15
Phe Asn Gln Ser Pro Glu Glu Phe Phe Asn Pro Cys Gln Gln Asn Trp
            20                  25                  30
Pro Val Ala Phe Val Phe Lys Asp Asp Leu Leu Leu His Gln Pro Lys
        35                  40                  45
Val Ala Asp Thr Ser Gly Phe Phe Ser Thr Tyr His Pro Gly Ser Ser
    50                  55                  60
Ile Val Ser Ala Thr
65
```

<210> 30738
<211> 529
<212> PRT
<213> A.fumigatus

<400> 30738

```
Ser Pro Pro Arg Gly Glu Asp Lys Asn Tyr Ile Ile Leu Lys Lys Asp
1               5                  10                  15
Lys Leu Tyr Val Lys His Asn Val Leu Ser Glu Asp Ile Pro Ile Val
            20                  25                  30
Ile Leu Leu Arg Ala Met Gly Ile His Thr Glu Gln Glu Met Leu Leu
        35                  40                  45
Leu Val Ala Gly Val Asp Ser Leu Tyr Gln Asp Asp Phe Ala Ile Asn
    50                  55                  60
Phe Glu Glu Ser Ile Lys Leu Gly Ile Tyr Thr Gln Gln Gln Ala Leu
65                  70                  75                  80
Asp Trp Ile Gly Ala Arg Ile Lys Ile Asn Arg Lys Gln Ser Ser Tyr
                85                  90                  95
Arg Arg Thr His Ile Gln Glu Ala Val Glu Ala Ile Ala Ser Val Ile
            100                 105                 110
Ile Ser His Ile Glu Val Lys Asn Met Asn Phe Arg Pro Lys Ala Val
        115                 120                 125
Tyr Val Ala His Met Ala Arg Arg Val Leu Met Ala Lys Asn Asp Pro
    130                 135                 140
Ser Leu Val Asp Asp Arg Asp Tyr Leu Gly Asn Lys Arg Leu Glu Leu
145                 150                 155                 160
Ala Gly Gln Leu Leu Ala Leu Leu Phe Glu Asp Leu Phe Lys Lys Phe
                165                 170                 175
Cys Phe Asp Ile Lys Met Asn Ile Asp Lys Val Leu Asn Lys Arg Asn
            180                 185                 190
Arg Ala Glu Gln Phe Asp Ala Trp Thr Val Met Ser Met His Ser Asn
        195                 200                 205
His Ile Thr Gln Gly Met Asn Arg Ala Ile Ser Thr Gly Asn Trp Ser
    210                 215                 220
Leu Lys Arg Phe Arg Met Glu Arg Ala Gly Val Thr His Val Leu Ser
225                 230                 235                 240
Arg Leu Ser Tyr Ile Ala Ala Leu Gly Met Met Thr Arg Ile Ser Ser
                245                 250                 255
Gln Phe Glu Lys Thr Arg Lys Val Ser Gly Pro Arg Ala Leu Gln Pro
            260                 265                 270
Ser Gln Phe Gly Met Leu Cys Pro Ala Asp Thr Pro Glu Gly Glu Ala
        275                 280                 285
Cys Gly Leu Val Lys Asn Leu Ala Leu Met Thr His Ile Thr Thr Asn
    290                 295                 300
Asp Glu Glu Gly Pro Ile Lys Asn Leu Val Phe Met Leu Gly Ala Glu
305                 310                 315                 320
Asp Ile Met Ala Leu Gly Gly Lys Gln Leu Tyr Ile Pro Gly Ser Tyr
                325                 330                 335
Thr Ile Ser Ile Asn Gly Thr Pro Ile Ala Leu Thr Arg Arg Pro Lys
            340                 345                 350
Tyr Phe Leu Asn Ala Phe Arg Arg Leu Arg Arg Met Gly Arg Ile Ser
        355                 360                 365
Glu Phe Val Ser Ile Tyr Ile Asn His His Gln Cys Ala Val His Ile
    370                 375                 380
Ala Thr Asp Asp Gly Arg Ile Cys Arg Pro Leu Ile Val Val Glu Asn
385                 390                 395                 400
Gly Arg Ser Leu Val Lys Asp His His Leu Glu Lys Leu Arg Asp Gly
                405                 410                 415
Thr Met Gln Phe Asp Asp Phe Leu Ala Gln Gly Leu Val Glu Tyr Leu
            420                 425                 430
Asp Val Asn Glu Glu Asn Asp Ser Leu Ile Ala Leu Tyr Glu Lys Asp
```

```
        435                 440                 445
Ile Thr Asp Thr Thr Thr His Leu Glu Ile Glu Pro Phe Thr Val Leu
    450                 455                 460
Gly Ala Val Ala Gly Leu Ile Pro Tyr Pro His His Asn Gln Ser Pro
465                 470                 475                 480
Arg Asn Thr Tyr Gln Cys Ala Met Gly Lys Gln Ala Ile Gly Ala Ile
                485                 490                 495
Ala Ser Asn Gln Phe Leu Arg Ile Asp Ser Ile Leu Tyr Leu Met Val
            500                 505                 510
Tyr Pro Gln Lys Pro Met Val Lys Ser Arg Thr Ile Glu Leu Val Lys
        515                 520                 525
Tyr
```

<210> 30739
<211> 81
<212> PRT
<213> A.fumigatus

<400> 30739

```
Asp Arg Thr Asp Leu Ala Gln Glu Leu Ala Asp Lys Leu Gly Val Lys
1               5                   10                  15
Leu Ser Gln Leu Ala Leu Ala Trp Cys Leu Lys Asn Glu Asn Val Ser
            20                  25                  30
Ser Val Ile Thr Gly Ala Ser Arg Pro Glu Gln Ile Val Asp Asn Val
        35                  40                  45
Glu Ser Leu Lys Leu Leu Pro Lys Leu Thr Pro Glu Val Met Ser Gln
    50                  55                  60
Ile Asp Glu Tyr Leu Gly Asn Lys Pro Ala Gln Asp Pro Ala Arg Gln
65                  70                  75                  80
Asp
```

<210> 30740
<211> 66
<212> PRT
<213> A.fumigatus

<400> 30740

```
Leu Arg Arg Gln Leu Phe Arg His Gly Arg Lys Val Cys Leu Ser Arg
1               5                   10                  15
Leu Cys Asn Asp Pro Ser Ser Arg Ser Ser Tyr Ala Asn Gly Gln Ser
            20                  25                  30
Glu Val Val Met Gly Gln Ala Ile Lys Lys Phe Gly Trp Lys Arg Ser
        35                  40                  45
Asp Leu Val Ile Ser Thr Lys Val Arg Pro Gly Pro Ile Val Cys Asn
    50                  55                  60
Ser Gly
65
```

<210> 30741
<211> 206
<212> PRT
<213> A.fumigatus

<400> 30741

```
Leu Asn Trp Gly Met Ala Asn Gly Glu Ile Leu Ile Asn Asn His Gly
1               5                  10                  15
Leu Ser Arg Lys His Ile Ile Glu Gly Thr Arg Ala Ser Leu Glu Arg
            20                  25                  30
Leu Gln Leu Glu Tyr Val Asp Ile Ile Tyr Ala His Arg Pro Asp Arg
        35                  40                  45
Leu Thr Pro Met Glu Glu Thr Val Arg Ala Phe Asn His Val Ile Glu
    50                  55                  60
Lys Gly Trp Ala Phe Tyr Trp Gly Thr Ser Glu Trp Ser Ala Asp Glu
65                  70                  75                  80
Ile Ala Glu Ala Cys Gly Ile Ala Arg Ser Leu Gly Leu Ile Gly Pro
                85                  90                  95
Ile Val Glu Gln Pro Leu Tyr Asn Met Leu Asp Arg Arg Lys Val Glu
            100                 105                 110
Gly Glu Phe Gln Arg Leu Tyr Ser Arg Cys Gly Ile Gly Leu Thr Thr
        115                 120                 125
Phe Ser Pro Leu Lys Met Gly Leu Leu Ser Gly Lys Tyr Asn Asp Ala
    130                 135                 140
Thr Thr Gln Pro Pro Pro Gly Ser Arg Phe Ala Glu Ser Asn Asp Arg
145                 150                 155                 160
Phe Ala Asn Lys Val Arg Gln Asn Tyr Gly Asn Asp Glu Trp Ala Ala
                165                 170                 175
Thr Ile Lys Lys Ile Val Gly Leu Lys Ala Gly Ile His Ser Pro Leu
            180                 185                 190
Pro Arg Thr Ala Leu Thr Trp His Arg Ser Trp Arg Ile Asn
        195                 200                 205
```

<210> 30742
<211> 133
<212> PRT
<213> A.fumigatus

<400> 30742

```
Asp Tyr Ile Glu Val Thr Phe Asn Cys Met Lys Gln Ala Tyr Asp Cys
1               5                  10                  15
Gly Val Asn Phe Phe Asp Thr Ala Glu Arg Tyr Ala Ser His Ala Cys
            20                  25                  30
Ala Met Ile Gln Ala His Glu Ala Ala Met Gln Met Asp Asn Pro Lys
        35                  40                  45
Ser Ser Trp Asp Lys Pro Ser Arg Asn Ser Gly Gly Ser Glu Ala Thr
    50                  55                  60
Trp Ser Ser Ala Gln Arg Phe Val Leu Gly Gln Leu Cys Val Thr Gln
65                  70                  75                  80
Ala Asp Arg Cys Ser Ser Thr Gly Ala Trp Gln Met Val Lys Ser Ser
                85                  90                  95
Ser Thr Thr Met Val Tyr His Val Asn Thr Ser Ser Lys Ala Pro Gly
            100                 105                 110
Arg Arg Trp Asn Ala Cys Ser Trp Asn Thr Ser Thr Ser Ser Thr Pro
        115                 120                 125
Thr Asp Arg Thr Ala
    130
```

<210> 30743
<211> 202
<212> PRT
<213> A.fumigatus

<400> 30743
Gly Glu Thr Val Ile Asp Leu Gly Ser Gly Gly Gly Ile Asp Val Ile
1 5 10 15
Leu Ala Ala Arg Lys Val Gly Pro Lys Gly Lys Ala Ile Gly Val Asp
20 25 30
Met Thr Lys Val Ser Ile His Val Tyr Arg Ala Asp Tyr Thr Leu Pro
35 40 45
Ala Ser Asp Leu Leu Pro Ile Tyr Gln Lys Met Leu Ala Leu Ala His
50 55 60
Glu Asn Val Glu Lys Ala Gly Ile Thr Asn Ala Ser Phe Val Glu Gly
65 70 75 80
Phe Ile Thr Ala Ile Pro Leu Glu Asp Ser Thr Ala Asp Cys Ile Ile
85 90 95
Ser Asn Cys Val Val Asn Leu Val Pro Lys Glu Gln Lys Ser Leu Val
100 105 110
Phe His Glu Met Phe Arg Leu Leu Lys Pro Gly Gly Arg Val Ala Ile
115 120 125
Ser Asp Ile Leu Ala Arg Arg Glu Leu Pro Pro Glu Ile Ala Asn Asp
130 135 140
Leu Ala Leu Tyr Val Gly Cys Ile Ala Gly Ala Ser Gln Ala Gln Gln
145 150 155 160
Tyr His Ala Tyr Leu Lys Asp Ala Gly Phe Gly Gly Thr Ser Thr Asn
165 170 175
Pro Leu Ala Thr Asp Arg Lys Met Leu Ile Leu Cys Ala Glu Tyr Ser
180 185 190
Thr Arg Ala Trp Lys Val Pro Arg Met Arg
195 200

<210> 30744
<211> 376
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (20)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30744
Asp Ile Arg Gln Phe Pro Ser Leu Glu Ala Lys Leu Pro Lys Glu Gly
1 5 10 15
Glu Lys Ala Xaa Ala Gly Gly Thr Thr Leu Ile His Asp Ser Val Thr
20 25 30
Pro Asp Asp Ile Ala Asn Val Val Ser Arg Thr Thr Gly Ile Pro Val
35 40 45
Asn Lys Leu Met Gly Gly Asp Val Glu Lys Leu Ile His Met Glu Asp
50 55 60
Thr Leu Arg Gln Ser Val Arg Gly Gln Asp Glu Ala Leu Thr Ala Val
65 70 75 80
Ala Asn Ala Val Arg Met Gln Arg Ala Gly Leu Ser Gly Gln Asn Arg
85 90 95
Pro Leu Ala Ser Phe Met Phe Leu Gly Pro Thr Gly Val Gly Lys Thr
100 105 110
Glu Leu Cys Lys Arg Met Ala Glu Phe Leu Phe Ser Thr Glu Thr Ala
115 120 125

```
Val Leu Arg Phe Asp Met Ser Glu Phe Gln Glu Lys His Thr Ile Ser
    130                 135                 140
Arg Leu Ile Gly Ser Pro Ala Gly Tyr Val Gly Tyr Asp Asp Ala Gly
145                 150                 155                 160
Gln Leu Thr Glu Ala Val Arg Arg Lys Pro Tyr Ala Val Leu Leu Phe
                165                 170                 175
Asp Glu Phe Glu Lys Ala His Arg Asp Ile Ser Ala Leu Leu Leu Gln
            180                 185                 190
Val Leu Asp Glu Gly Phe Leu Thr Asp Ser Gln Gly His Lys Val Asp
        195                 200                 205
Phe Arg Asn Thr Leu Ile Val Leu Thr Ser Asn Leu Gly Ala Asp Ile
    210                 215                 220
Leu Val Gly Ala Asn Pro Leu His Ser Phe Lys Asp Tyr Gly Asn Ala
225                 230                 235                 240
Glu Leu Ser Pro Asp Ile Lys Gln Ala Val Met Glu Val Val Gln Ser
                245                 250                 255
Ala Tyr Pro Pro Glu Phe Leu Asn Arg Ile Asp Glu Phe Ile Ile Phe
            260                 265                 270
Arg Arg Leu Ser Arg Glu Ala Leu Arg Asp Ile Val Asp Ile Arg Ile
        275                 280                 285
Lys Glu Leu Gln Ala Arg Leu Asp Asp Arg Arg Ile Val Leu Gln Val
    290                 295                 300
Asp Asn Glu Ile Lys Asp Trp Leu Cys Glu Lys Gly Tyr Asp Pro Lys
305                 310                 315                 320
Tyr Gly Ala Arg Pro Leu Asn Arg Leu Ile Ala Lys Glu Ile Gly Asn
                325                 330                 335
Arg Leu Ala Asp Lys Ile Ile Arg Gly Glu Leu Thr Ser Gly Gln Thr
            340                 345                 350
Ala Val Ile Ser Phe Asn Glu Asp Lys Thr Ala Leu Glu Val Thr Ala
        355                 360                 365
Asp Gly Ala Lys Glu Glu Lys Ala
    370                 375
```

<210> 30745
<211> 91
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (85)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30745

```
Leu Leu Arg Thr Pro Lys Asn Phe Arg Lys Ala Leu Lys Ala Asn Gln
1               5                   10                  15
Arg Gly Phe Ala Lys Ile Pro Arg Val Trp Lys Lys Lys Arg Pro Glu
            20                  25                  30
Ile Glu Ser Leu Lys Arg Thr Lys Lys Glu Leu Glu Arg Ala Arg Phe
        35                  40                  45
Glu Leu Asp Arg Ala Ser Glu Gly Gly Asn Phe Cys Glu Ser Trp Arg
    50                  55                  60
Ile Glu Ile Phe Asp Asn Phe Gln Ala Leu Arg Arg Asn Cys Pro Lys
65                  70                  75                  80
Lys Ala Arg Arg Xaa Pro Arg Glu Val Arg His
                85                  90
```

<210> 30746
<211> 62
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (62)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30746
His Leu Leu Phe Cys Ile Leu Glu Ser Asn Leu Lys Lys Asn Lys Leu
1 5 10 15
His Glu Gln Met Asn Cys Leu Val Val Arg Asn Cys Asn Asn Gln Asp
20 25 30
His Met Asp Pro Gly Ser Leu Arg Leu Lys Thr Asn Gln Gln Arg Arg
35 40 45
Gln Val Asn Ala Ser Trp Ile Asn Ile Ile Ile Ser Ile Xaa
50 55 60

<210> 30747
<211> 157
<212> PRT
<213> A.fumigatus

<400> 30747
Asp Arg Val Gly Val Lys Leu Ser Pro Tyr Ser Gln Tyr Leu Gly Met
1 5 10 15
Gly Thr Met Asp Glu Leu Val Pro Gln Phe Glu Tyr Leu Ile Ala Gln
20 25 30
Met Arg Arg Leu Asp Val Ala Tyr Leu His Leu Ala Asn Ser Arg Trp
35 40 45
Leu Asp Glu Glu Lys Pro His Pro Asp Pro Asn His Glu Val Phe Val
50 55 60
Arg Val Trp Gly Gln Ser Ser Pro Ile Leu Leu Ala Gly Gly Tyr Asp
65 70 75 80
Ala Ala Ser Ala Glu Lys Val Thr Glu Gln Met Ala Ala Ala Thr Tyr
85 90 95
Thr Asn Val Ala Ile Ala Phe Gly Arg Tyr Phe Ile Ser Thr Pro Asp
100 105 110
Leu Pro Phe Arg Val Met Ala Gly Ile Gln Leu Gln Lys Tyr Asp Arg
115 120 125
Ala Ser Phe Tyr Ser Thr Leu Ser Arg Glu Gly Tyr Leu Asn Tyr Pro
130 135 140
Phe Ser Ala Glu Tyr Met Ala Leu His Asn Phe Pro Val
145 150 155

<210> 30748
<211> 503
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (139)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30748

```
Ser Ser Leu Gly Leu Asn Glu Gly Lys Arg Asn Thr Tyr Arg Asn Lys
1               5                  10                  15
Leu Lys Cys Cys Arg Asn Leu Arg Arg Ser Pro Gly Arg Gln Trp Ala
            20                  25                  30
His His Gly Cys Gly Arg Gly Gly Phe Cys Ala Ser Leu Ser Arg Cys
        35                  40                  45
Ser Ser Leu Leu Val Leu Leu Ile Asn Cys Gly Pro Arg Ala Val Tyr
    50                  55                  60
Met Pro Glu Glu Pro Pro Lys Ile Ile Gln Asn Ile Thr Ile Thr Ser
65                  70                  75                  80
Gly Val Lys Cys Glu Pro Asp Phe Asp Val Leu Arg Arg Leu Asp Val
                85                  90                  95
Gln Lys Leu Ser Gln Tyr Glu Arg Arg Asp Met Phe Val Ala Arg Ser
            100                 105                 110
Ser Glu Pro Glu Leu Pro Ile Arg Gln Arg Leu Asn Ile Pro Phe Leu
        115                 120                 125
Gln Gln Pro Ser Ser Gly Asp Glu Ala Arg Xaa Met Gly Leu Pro Ser
    130                 135                 140
Gln Glu Gln Cys Tyr Ile Glu Pro Pro Val Thr Val Glu Val Pro Pro
145                 150                 155                 160
Ser Pro Ala Ser Val Asp Ala Ser His Ile Asp Phe Gly Val Ala Thr
                165                 170                 175
Thr Leu Glu Arg Leu Asn Asp Ser Leu Asp Ala Phe Thr His Trp Ala
            180                 185                 190
Gly Tyr Thr Arg Thr Arg Ile Phe Ala Leu Val Glu Pro Asp Glu Arg
        195                 200                 205
Val Glu Glu Val Gln Ala Lys Ala Asp Ser Leu Gly Ile Asn Leu Phe
    210                 215                 220
Val Thr Gln Ser Glu Glu Glu Tyr Gln Thr Arg Tyr Phe Ser Leu Val
225                 230                 235                 240
Ala His Leu Ala Lys Asn Met Arg Pro Arg Thr Arg Trp Ala Cys Val
                245                 250                 255
Ile Asp Asp Asp Thr Phe Phe Leu Ser Met Ala Ala Leu Val Asp Ala
            260                 265                 270
Leu Ala Glu Tyr Asp Asp Thr Lys Pro Met Tyr Ile Gly Gly Leu Ser
        275                 280                 285
Glu Ser Val Ser Gln Ile Gly Ile Phe Gly Leu Met Gly Phe Gly Gly
    290                 295                 300
Ala Gly Val Phe Leu Ser Arg Pro Leu Val Gln Gln Leu Ser Asn Arg
305                 310                 315                 320
Asp Val Phe Glu Ala Cys Gln Ala Met Pro His Thr Gly Asp Arg Arg
                325                 330                 335
Ile Ser Leu Cys Ile Tyr Gln His Thr Glu Thr Lys Leu Thr Val Asp
            340                 345                 350
Asn Arg Leu Arg Gln Leu Asp Met Arg Gly Asp Ala Ser Gly Phe Phe
        355                 360                 365
Glu Ser Gly Arg Glu Pro Pro Leu Ser Val His His Trp Lys Ser Trp
    370                 375                 380
Phe Gln Ala Asp Met Ala Lys Leu Ser Val Ile Thr Asn Leu Cys Gly
385                 390                 395                 400
Asp Lys Cys Phe Leu Arg Gln Trp Gln Phe Ser Asp Gly Trp Thr Leu
                405                 410                 415
Thr Asn Gly Phe Ser Ile Ala Lys Tyr Ser Thr Glu Ile Asp Leu Asp
```

```
            420                 425                 430
Asp Lys Thr Met Glu Val Ser Trp Val Gly Asp Asn Gly Ala Val Asp
        435                 440                 445
Glu Ser Phe Met His Ala Leu Gly Pro Leu Arg Pro Lys Asp Thr Gly
    450                 455                 460
Lys Phe Ser Tyr Leu Leu Glu Asp Ser Val Phe Leu Gly Asn Gln Val
465                 470                 475                 480
Arg Gln Trp Tyr Val His Arg Asp Ala Glu Lys Gly Asp Gln Ile Ile
                485                 490                 495
Glu Leu Ile Trp Lys Met Ala
            500
```

<210> 30749
<211> 490
<212> PRT
<213> A.fumigatus

<400> 30749

```
Ile Thr Pro Pro Arg Ile Leu Pro Thr Ala Val Val Lys Thr Ala Gln
1               5                  10                  15
Trp Lys Glu Lys Lys Val Phe Glu Val Asp Ala Pro Ser Leu Ser Glu
            20                  25                  30
Val Pro Pro Ser Thr Leu Ser Ser Ala Glu Leu Arg Glu Lys Tyr Pro
        35                  40                  45
Lys Phe Phe Gly Thr Met Ala Tyr Pro Tyr Met Asn Gly Thr Leu His
    50                  55                  60
Ala Gly His Ser Phe Thr Ala Ser Lys Ile Glu Phe Met Thr Gly Val
65                  70                  75                  80
Ala Arg Met Glu Gly Lys Arg Ala Leu Phe Pro Leu Gly Phe His Cys
                85                  90                  95
Thr Gly Met Pro Ile Lys Ala Cys Ala Asp Lys Leu Ala Asp Glu Val
            100                 105                 110
Gln Lys Phe Gly Lys Asn Phe Glu Arg Tyr Ser Glu Glu Ser Glu Glu
        115                 120                 125
Gln Asp Pro Thr Ala Val Ala Ala Pro Thr Gln Glu Ile Lys Ala Glu
    130                 135                 140
Gln Glu Lys Phe Ser Gly Lys Lys Ser Lys Ala Ala Ala Lys Thr Val
145                 150                 155                 160
Lys Met Lys Tyr Gln Phe Gln Ile Met Leu Ala Ile Gly Leu Pro Leu
                165                 170                 175
Glu Glu Ile His Lys Phe Ala Asp Ala Asn His Trp Leu His His Phe
            180                 185                 190
Pro Pro Leu Ala Ile Arg Asp Leu Asp Ser Leu Gly Ala Arg Val Asp
        195                 200                 205
Trp Arg Arg Gln Phe Val Thr Thr Asp Ala Asn Pro Tyr Tyr Asp Ser
    210                 215                 220
Phe Val Arg Trp Gln Met Asn Arg Leu His Glu Leu Gly Lys Ile Leu
225                 230                 235                 240
Tyr Gly Asn Arg Tyr Thr Ile Tyr Ser Pro Lys Asp Gly Gln Pro Cys
                245                 250                 255
Met Asp His Asp Arg Thr Glu Gly Glu Gly Ile Gly Pro Gln Glu Tyr
            260                 265                 270
Thr Ala Met Lys Leu Gln Val Lys Glu Trp Ala Pro Glu Ile Ala Glu
        275                 280                 285
Leu Val Lys Gly Lys Ile Glu Asp Asp Ala Lys Val Tyr Phe Val Pro
    290                 295                 300
```

```
Ala Thr Leu Arg Pro Glu Thr Met Tyr Gly Gln Thr Cys Cys Phe Leu
305                 310                 315                 320
Gly Pro Lys Ile Lys Tyr Gly Ile Phe Arg Val Lys Glu Lys Glu Tyr
                325                 330                 335
Tyr Ile Val Thr Lys Arg Ala Ala Trp Asn Met Ala Phe Gln Gly Ile
            340                 345                 350
Phe Phe Asp Ser Glu His Phe Pro Lys Thr Gln Asp Glu Leu Pro Leu
        355                 360                 365
Val Leu Glu Ala Pro Gly Ser Ala Phe Val Gly Thr Leu Val Asn Ala
    370                 375                 380
Pro Leu Ser Phe His Thr Glu Gly Val Arg Ile Leu Pro Met Glu Gly
385                 390                 395                 400
Val Ser Ala Thr Lys Gly Thr Gly Val Val Thr Ser Val Pro Ser Asp
                405                 410                 415
Ser Pro Asp Asp Tyr Ala Thr Leu Val Asp Leu Ala Lys Lys Pro Glu
            420                 425                 430
Tyr Tyr Gly Ile Lys Lys Glu Trp Ala Glu Leu Glu Ile Phe Pro Leu
        435                 440                 445
Ile Glu Thr Pro Thr Tyr Gly Asn Leu Thr Ala Pro Thr Leu Val Lys
    450                 455                 460
Lys Leu Lys Ile Asn Ser Pro Lys Asp Val Asn Gln Leu Ala Gln Ala
465                 470                 475                 480
Lys Glu Leu Ala Tyr Gly Glu Ala Tyr Tyr
                485                 490
```

<210> 30750
<211> 139
<212> PRT
<213> A.fumigatus

<400> 30750

```
Ser Ala Ala Pro Ser Thr Pro Val Val Lys Thr Gly Ser Lys Thr Ala
1               5                   10                  15
Thr Ser Arg Pro Met Leu Gln Pro Gly Thr Thr Pro Gly Pro Pro Thr
            20                  25                  30
Arg Ala Ala Pro Thr Leu Asp Arg Met Pro Pro Tyr Lys Leu Gly Met
        35                  40                  45
Thr Ile Thr Ser Asn Cys Trp Gly Arg Glu Thr Ala Cys Met Asp Ala
    50                  55                  60
Leu Ser Thr Ile Met Ser Leu Thr Ser Arg Val Gly Tyr Ile Ser Ala
65                  70                  75                  80
Thr Leu Trp Lys Val Leu Arg Asn Lys Pro Ser Ala Ser Phe Met Met
                85                  90                  95
Phe Ala Leu Trp Met Gln Val Thr Phe Phe Leu Leu Leu Ala Arg Ala
            100                 105                 110
Asn Pro Asn Ala Asn Leu Ala Met Arg Ser Asp Phe Ala Arg Val Met
        115                 120                 125
Ile Phe Ser Asp Ser Thr Thr Pro Cys Thr Asp
    130                 135
```

<210> 30751
<211> 264
<212> PRT
<213> A.fumigatus

<400> 30751

```
Cys Lys Gly Asp Gly Ile Gly Ala Glu Val Ala Glu Ser Val Lys Thr
1               5                  10                  15
Ile Phe Lys Ala Asp Asn Val Pro Ile Glu Trp Glu Gln Val Asp Val
            20                  25                  30
Ser Gly Val Asp Thr Gly Asn Lys His Ser Glu Glu Leu Phe Lys Glu
        35                  40                  45
Ser Ile Ala Ser Leu Arg Arg Asn Lys Leu Gly Leu Lys Gly Ile Leu
    50                  55                  60
Phe Thr Pro Val Glu Arg Ser Gly His Gln Ser Phe Asn Val Ala Leu
65                  70                  75                  80
Arg Gln Glu Leu Asp Ile Phe Ala Ser Ile Val Leu Ile Lys Asn Ile
                85                  90                  95
Pro Gly Tyr Lys Thr Arg His Glu Asn Val Asp Leu Cys Ile Ile Arg
            100                 105                 110
Glu Asn Thr Glu Gly Glu Tyr Ser Gly Leu Glu His Gln Ser Val Gln
        115                 120                 125
Gly Val Val Glu Ser Leu Lys Ile Ile Thr Arg Ala Lys Ser Glu Arg
    130                 135                 140
Ile Ala Lys Phe Ala Phe Gly Phe Ala Leu Ala Asn Asn Arg Lys Lys
145                 150                 155                 160
Val Thr Cys Ile His Lys Ala Asn Ile Met Lys Leu Ala Asp Gly Leu
                165                 170                 175
Phe Arg Ser Thr Phe His Lys Val Ala Glu Met Tyr Pro Thr Leu Glu
            180                 185                 190
Val Asn Asp Met Ile Val Asp Asn Ala Ser Met Gln Ala Val Ser Arg
        195                 200                 205
Pro Gln Gln Phe Asp Val Met Val Met Pro Asn Leu Tyr Gly Gly Ile
    210                 215                 220
Leu Ser Asn Val Gly Ala Ala Leu Val Gly Gly Pro Gly Val Val Pro
225                 230                 235                 240
Gly Cys Asn Met Gly Arg Asp Val Ala Val Phe Glu Pro Val Phe Thr
                245                 250                 255
Thr Gly Val Glu Gly Ala Ala Leu
            260
```

<210> 30752
<211> 140
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (128),(133),(136)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 30752
His Ile Lys Leu Thr Ile Arg Val Pro Asp Tyr Val Ile Gly Asp Pro
1               5                  10                  15
Phe Arg Leu Arg Gln Ile Ile Leu Asn Leu Val Gly Asn Ala Ile Lys
            20                  25                  30
Phe Thr Glu His Gly Glu Val Lys Leu Thr Ile Arg Lys Ser Asp Arg
        35                  40                  45
Glu Gln Cys Ala Pro Asn Glu Tyr Ala Ser Glu Phe Ser Val Ser Asp
    50                  55                  60
Thr Gly Ile Gly Ile Glu Glu Asp Lys Leu Asp Leu Ile Phe Asp Thr
65                  70                  75                  80
```

```
Phe Gln Gln Ala Asp Gly Ser Thr Thr Arg Arg Phe Gly Gly Thr Gly
                85                  90                  95
Leu Gly Leu Ser Ile Ser Lys Arg Leu Val Asn Leu Met Val Gly Asp
            100                 105                 110
Val Trp Val Thr Ser Glu Tyr Gly Ser Leu His Leu Gly Ala Gly Xaa
        115                 120                 125
Val Pro Leu Ser Xaa Gln Arg Xaa Ile Gln Cys Arg
    130                 135                 140
```

<210> 30753
<211> 861
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (186)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30753

```
Arg Val Thr Ser Ser Ser Arg Glu Gln Cys Ala Lys Leu Pro Gly Glu
1               5                  10                  15
Pro Ser Gln Ala Lys Ala Ala Phe Glu Phe Glu Leu Glu Ala Leu Ile
            20                  25                  30
Arg Arg Val Arg His Leu Glu Phe Gln Val Val Ser His Gln Pro Tyr
        35                  40                  45
Pro Arg Pro Ala Pro Glu Leu Pro Leu Ser Ser Thr Lys Asn Ser Asp
    50                  55                  60
Phe Leu Trp Leu Phe Gly Leu Ser Arg Leu Ser Ser His Glu Gly Ala
65                  70                  75                  80
Ala Ser Asn Ser Ser Cys Gly Met Gln Gln Glu Thr Ser Arg Arg Arg
                85                  90                  95
Gln Arg Thr Arg Arg Ile Arg Arg Glu Ala Glu Asp Asn Glu Ala Asp
            100                 105                 110
Glu Ala Leu Asp Asp Asp Asp Ser Asp Asp Asp Val Asn Ser Arg Thr
        115                 120                 125
Arg Leu Val Arg Glu Glu Asp Ile Ser Tyr Leu Arg Asn His Val Gln
    130                 135                 140
Lys Gln Ala Glu Glu Ile Ser Phe Gln Lys Asp Ile Ile Ala Gln Val
145                 150                 155                 160
Arg Asp Glu Leu Leu Gln Gln Glu Glu His Thr Arg Arg Ala Leu Thr
                165                 170                 175
Lys Val Glu Asn Glu Asp Val Val Leu Xaa Glu Arg Glu Leu Arg Lys
            180                 185                 190
Gln Gln Gln Ala Asn Glu Ala Phe Gln Lys Ala Leu Arg Glu Ile Gly
        195                 200                 205
Gly Ile Ile Thr Gln Val Ala Asn Gly Asp Leu Ser Met Lys Val Gln
    210                 215                 220
Ile His Pro Leu Glu Met Asp Pro Glu Ile Ala Thr Phe Lys Arg Thr
225                 230                 235                 240
Ile Asn Thr Met Met Asp Gln Leu Gln Val Phe Gly Ser Glu Val Ser
                245                 250                 255
Arg Val Ala Arg Glu Val Gly Thr Glu Gly Ile Leu Gly Gly Gln Ala
            260                 265                 270
Gln Ile Thr Gly Val His Gly Ile Trp Lys Glu Leu Thr Glu Asn Val
        275                 280                 285
```

```
Asn Ile Met Ala Lys Asn Leu Thr Asp Gln Val Arg Glu Ile Ala Ala
    290                 295                 300
Val Thr Thr Ala Val Ala His Gly Asp Leu Ser Gln Lys Ile Glu Ser
305                 310                 315                 320
Arg Ala Gln Gly Glu Ile Leu Glu Leu Gln Gln Thr Ile Asn Thr Met
                325                 330                 335
Val Asp Gln Leu Arg Thr Phe Ala Thr Glu Val Thr Arg Val Ala Arg
            340                 345                 350
Asp Val Gly Thr Glu Gly Val Leu Gly Gly Gln Ala Gln Ile Glu Gly
        355                 360                 365
Val Gln Gly Met Trp Asn Glu Leu Thr Val Asn Val Asn Ala Met Ala
    370                 375                 380
Asn Asn Leu Thr Thr Gln Val Arg Asp Ile Ala Thr Val Thr Lys Ala
385                 390                 395                 400
Val Ala Lys Gly Asp Leu Thr Gln Lys Val Gln Ala Asn Cys Lys Gly
                405                 410                 415
Glu Ile Ala Glu Leu Lys Asn Ile Ile Asn Ser Met Val Asp Gln Leu
            420                 425                 430
Arg Gln Phe Ala Gln Glu Val Thr Lys Ile Ala Lys Glu Val Gly Thr
        435                 440                 445
Asp Gly Val Leu Gly Gly Gln Ala Thr Val Asn Asp Val Glu Gly Thr
    450                 455                 460
Trp Lys Asp Leu Thr Glu Asn Val Asn Arg Met Ala Asn Asn Leu Thr
465                 470                 475                 480
Thr Gln Val Arg Glu Ile Ala Asp Val Thr Thr Ala Val Ala Lys Gly
                485                 490                 495
Asp Leu Thr Lys Lys Val Thr Ala Asn Val Gln Gly Glu Ile Leu Asp
            500                 505                 510
Leu Lys Ser Thr Ile Asn Gly Met Val Asp Arg Leu Asn Thr Phe Ala
        515                 520                 525
Phe Glu Val Ser Lys Val Ala Arg Glu Val Gly Thr Asp Gly Thr Leu
    530                 535                 540
Gly Gly Gln Ala Lys Val Asp Asn Val Glu Gly Lys Trp Lys Asp Leu
545                 550                 555                 560
Thr Asp Asn Val Asn Thr Met Ala Gln Asn Leu Thr Ser Gln Val Arg
                565                 570                 575
Ser Ile Ser Asp Val Thr Gln Ala Ile Ala Lys Gly Asp Leu Ser Lys
            580                 585                 590
Lys Ile Glu Val His Ala Gln Gly Glu Ile Leu Thr Leu Lys Val Thr
        595                 600                 605
Ile Asn His Met Val Asp Arg Leu Ala Lys Phe Ala Thr Glu Leu Lys
    610                 615                 620
Lys Val Ala Arg Asp Val Gly Val Asp Gly Lys Met Gly Gly Gln Ala
625                 630                 635                 640
Asn Val Glu Gly Ile Ala Gly Thr Trp Lys Glu Ile Thr Glu Asp Val
                645                 650                 655
Asn Thr Met Ala Glu Asn Leu Thr Ser Gln Val Arg Ala Phe Gly Glu
            660                 665                 670
Ile Thr Asp Ala Ala Thr Asp Gly Asp Phe Thr Lys Leu Ile Thr Val
        675                 680                 685
Asn Ala Ser Gly Glu Met Asp Glu Leu Lys Arg Lys Ile Asn Lys Met
    690                 695                 700
Val Ser Asn Leu Arg Asp Ser Ile Gln Arg Asn Thr Ala Ala Arg Glu
705                 710                 715                 720
Ala Asp Glu Leu Ala Asn Arg Thr Lys Ser Asp Phe Leu Ala Asn Met
                725                 730                 735
```

```
Ser His Glu Ile Arg Ser Pro Met Asn Gly Ile Ile Gly Met Thr Gln
            740                 745                 750
Leu Thr Ile Asp Thr Val Asp Leu Lys Pro His Thr Arg Glu Met Leu
        755                 760                 765
Asn Val Val His Asn Leu Ser Asn Ser Leu Leu Thr Ile Ile Asp Asp
    770                 775                 780
Ile Leu Asp Ile Ser Lys Ile Glu Ala Asn Arg Met Val Ile Glu Ser
785                 790                 795                 800
Ile Pro Phe Thr Val Arg Gly Thr Val Phe Asn Ala Leu Lys Thr Leu
                805                 810                 815
Ala Val Lys Ala Asn Glu Lys Phe Leu Ser Leu Thr Tyr Gln Val Asp
            820                 825                 830
Asn Thr Cys Thr Gly Leu Cys His Trp Arg Ser Phe Pro Ser Ala Ser
        835                 840                 845
Asp His Phe Glu Leu Gly Arg Gln Arg His Gln Val His
    850                 855                 860
```

<210> 30754
<211> 96
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (4)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30754

```
Leu Ala Phe Xaa Gln Asp Tyr Ile Phe Ile Leu Asn Leu Gly Gln Cys
1               5                   10                  15
Pro Ser Arg Val Leu Leu Leu Leu Gln Lys Leu Val Ala Asn Leu Ser
            20                  25                  30
Asp Asp Val Phe Leu Glu Ala Tyr Phe Leu Cys Leu Phe Leu Tyr Met
        35                  40                  45
Ile Pro Gln Ile Thr Asp Val Phe Leu Ala Asn Glu Ser Ser Ser Arg
    50                  55                  60
Val Asn Ile Ile Ile Thr Val Val Val Ile Glu Arg Leu Ile Ser Leu
65                  70                  75                  80
Ile Val Phe Arg Phe Ala Ala Asp Ser Pro Cys Ser Leu Thr Thr Ser
                85                  90                  95
```

<210> 30755
<211> 239
<212> PRT
<213> A.fumigatus

<400> 30755

```
Gln Leu Gln Arg Ile Gly Thr Val Ile Ser Ser Leu Asn Gln Thr Cys
1               5                   10                  15
Glu Glu Met Arg Gln His Ile Val Arg Ala Lys Gln Asp Thr Ala Pro
            20                  25                  30
Val Ile Glu Glu Ala Ser Ala Leu Met Asn Gln Lys Lys Glu Ser Glu
        35                  40                  45
Thr Lys Gln Gln Leu Leu Asp Ala Phe Val Lys His Phe Ile Val Thr
    50                  55                  60
Glu Asp Asp Leu Leu Val Leu Thr Ser Ala Glu Glu Pro Ile Asp Asp
```

```
65                  70                  75                  80
Arg Phe Phe Asn Val Leu Asp Arg Val Lys Gln Val His His Asp Cys
                85                  90                  95
Glu Val Leu Leu Gly Gly Glu Asn Gln Arg Leu Gly Leu Glu Leu Met
            100                 105                 110
Glu Lys Ser Ser Arg Asn Leu Asn Ser Ala Tyr Gln Lys Leu Phe Arg
        115                 120                 125
Trp Ile Gln Lys Lys Phe Lys Ser Leu Asn Leu Glu Asp Pro Arg Ile
    130                 135                 140
Ser Ser Ser Ile Arg Arg Ala Leu Arg Val Leu Ala Glu Arg Pro Ser
145                 150                 155                 160
Leu Phe His Ser Cys Leu Asp Phe Phe Ala Asp Ala Arg Asp Tyr Ala
                165                 170                 175
Leu Ser Asp Ala Phe His Tyr Ala Leu Thr Asp Thr Val Ser Gly Ser
            180                 185                 190
Gly Gly Asp Arg Asn Val Lys Pro Ile Glu Phe Ser Ala His Asp Pro
        195                 200                 205
Leu Arg Tyr Val Gly Asp Met Leu Ala Trp Val His Ser Thr Thr Val
    210                 215                 220
Ser Glu Arg Glu Ala Leu Glu Ala Leu Phe Val Ala Glu Gly Gly
225                 230                 235
```

<210> 30756
<211> 83
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (67),(80)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30756

```
Ala Ser Gln Phe Ile Ser Phe Phe Cys Phe Cys Phe Ser Lys Asn Asn
1               5                   10                  15
Ile Ile Cys Tyr Ser Ser Leu Met Thr Ile Thr Tyr Tyr Tyr Ile Val
            20                  25                  30
Ile Leu Arg Leu Ser Leu Ile Leu Tyr Ser Leu Asp Thr Ser Tyr Cys
        35                  40                  45
Arg Ser Gln Ser Ile Tyr Ile Ser Val His Leu Leu Pro Met Tyr Cys
    50                  55                  60
Val Leu Xaa Ser Ala Pro Gly Ala Glu Gly Ser Arg Ile Ser Arg Xaa
65                  70                  75                  80
Pro Gln Asp
```

<210> 30757
<211> 70
<212> PRT
<213> A.fumigatus

<400> 30757

```
His Glu Thr Ala Phe Ser Val Pro Gly Leu Ala Asn Leu Ser Ala Phe
1               5                   10                  15
Asp Lys Ala Glu Phe Lys Met Ala Val Gln Arg Thr Pro Asn Ala Ala
            20                  25                  30
```

```
Gln Gly Leu Thr Asn Trp Thr Leu Asp Gly Val Tyr Tyr Ser Phe Gly
        35                  40                  45
Val Ser Ile Gln Val His Gln Thr Ser Leu Ser His Ile Leu Arg Leu
    50                  55                  60
Ser Gly Arg Asp Met Gly
65                  70
```

<210> 30758
<211> 63
<212> PRT
<213> A.fumigatus

<400> 30758

```
Tyr Leu Thr Pro Val Thr Leu Asp His Glu Phe Pro Asp Ile Val Ser
1               5                   10                  15
Gly Val Asn Phe Thr Lys Cys Leu Leu Glu Pro Pro Tyr Val His Ser
            20                  25                  30
Met Phe Lys Leu Ile Pro Asn Met Phe Leu Ser Ser Ile Ser Gln Ala
        35                  40                  45
Ile Leu Glu Asp Ser Cys Pro Thr Ser Lys Asn Lys Cys Leu Ile
    50                  55                  60
```

<210> 30759
<211> 158
<212> PRT
<213> A.fumigatus

<400> 30759

```
Lys Leu Phe Ser Ile Arg Leu Ala Tyr Val Phe Thr Pro Ile Tyr Leu
1               5                   10                  15
His Leu Ser Cys Thr Gln Leu Arg Arg Asn Ile Val Phe Asp Ser Ser
            20                  25                  30
Pro Thr Met Ser Leu Ala Phe Thr Asn Gln Pro Pro Glu Glu Arg Val
        35                  40                  45
Pro Tyr Ala Ile Pro Gln Leu Glu Gly Glu Arg Ile Thr Ile Pro Gly
    50                  55                  60
Ser Lys Gly Thr Phe Arg Ile Leu Ala Ser Ser Lys Gln Thr Asn Gly
65                  70                  75                  80
Leu Met Ala Val Phe Gln Ser Gly Ala Val Leu Ser Asp Val Pro Gly
                85                  90                  95
Phe His Tyr His Asn Gln Ala His Asp Val Phe Leu Val Thr Lys Gly
            100                 105                 110
Tyr Leu Lys Leu Trp Asn Gly Asp Lys Cys Arg Ile Met Gly Pro Gly
        115                 120                 125
Asp Phe Ala Tyr Val Pro Pro Val Ser Arg Asn His Val Phe Arg Phe
    130                 135                 140
Ala Ser Ala Leu Leu Thr Thr Leu Phe Thr Glu Ser His Ser
145                 150                 155
```

<210> 30760
<211> 251
<212> PRT
<213> A.fumigatus

<400> 30760

```
Gln Pro Ser Leu Gln Lys Val Ile His Asn Pro Glu Met Leu Gly Pro
```

```
1               5                   10                  15
His Thr Glu Ile Tyr Gly Leu Ile Thr Pro Gly Asp Trp Val Asp Phe
            20                  25                  30
Phe Arg Tyr Val Ser Glu Pro Tyr Lys Gly Ile Leu Val Pro Glu Asp
        35                  40                  45
Asp Asn Arg Asp Leu Lys Ser Ile Leu Ile Pro Lys Val Met Ala Ala
    50                  55                  60
Lys Glu Lys Phe Asp Val Val Phe Gln Pro Asn Tyr Gln Pro Pro Glu
65                  70                  75                  80
Val Gly Glu Phe Thr Lys Asp Asp Glu Lys Ile Pro Asp Gly His Glu
                85                  90                  95
Pro Tyr Phe Leu Arg Ser Asn Thr Gly Pro Lys Trp Met Leu Gly Gly
            100                 105                 110
Val Met Ser Arg Pro Phe Ile Thr Thr Lys Gln Ser Asn Gly Val Cys
        115                 120                 125
Ala Ile Ser Ser Ile Glu Ser Ser Lys Val Tyr Ser Glu Gly Leu Leu
    130                 135                 140
Ser Lys Tyr Met Thr Phe Lys Ser Val Asp His Cys Phe Cys Val Leu
145                 150                 155                 160
Glu Gly Thr Leu Thr Val Arg Leu Lys Gly Ser Thr Asp Thr Val Phe
                165                 170                 175
Arg Glu Gly Glu Thr Val Val Val Pro Ala Gly Gln Ala Phe Ala Leu
            180                 185                 190
Arg Phe Asp Ser Lys Tyr Val Arg Val Tyr Ser Phe Thr Asp Gly Asp
        195                 200                 205
Gly Ile Glu Ser Leu Val His Arg Leu Gly Lys Pro Phe Glu Gly Ser
    210                 215                 220
Val Leu Pro Asp Lys Glu Pro Glu Trp Glu His Thr Gln Val Gln Pro
225                 230                 235                 240
Val Ala Thr Glu Leu Asn Val Glu Ile Glu Leu
                245                 250
```

<210> 30761
<211> 137
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222>
(11),(13),(19),(20),(21),(22),(28),(29),(30),(31),(32),(33),(34),(35),(53),(63),(69)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30761

```
Leu Ser Ser Glu Tyr Pro Gly His Phe Leu Xaa Glu Xaa Thr Pro Gln
1               5                   10                  15
Ser Lys Xaa Xaa Xaa Xaa Arg Lys Arg Gly Arg Xaa Xaa Xaa Xaa Xaa
            20                  25                  30
Xaa Xaa Xaa Lys Ile Asn Leu Asn Glu Arg Tyr Lys Tyr Ala Trp Met
        35                  40                  45
Met Gln His Gln Xaa Gln Pro Ser Phe Arg Thr Pro Pro Gln Xaa Pro
    50                  55                  60
Lys Arg Gln Arg Xaa Thr Gln Ala Cys Asp Ser Val Arg Leu Lys Lys
65                  70                  75                  80
Tyr Lys Cys Asp Glu Leu Tyr Pro Cys Thr His Cys Arg Ser Lys Tyr
```

```
                85                  90                  95
Val Thr Tyr Thr Gly Phe Asn Met Ile Arg Gly Leu Ile Met Gly Arg
            100                 105                 110
Lys Gln Ala Arg Met His Leu Ser Glu Glu Leu Pro Ala Ala Arg Lys
        115                 120                 125
Arg Pro Val Ser Gln Val Phe Ser Gln
    130                 135
```

<210> 30762
<211> 283
<212> PRT
<213> A.fumigatus

<400> 30762

```
His Asn Thr Asn Arg Leu Ile Ala Ile Met Leu Gly Arg Leu Lys Met
1               5                   10                  15
Asn Val Asp Gln Cys Ile Asp Ala Tyr Val Arg Ile Ser Lys Gln Ala
            20                  25                  30
Phe Ser Arg Lys Asn Tyr Leu Pro Ile Thr Leu Gln Gly Glu Phe Arg
        35                  40                  45
Ala Arg Phe Asp Ser Lys Thr Leu Glu Glu Ala Leu Lys Ala Val Val
    50                  55                  60
Val Glu Gln Gly Leu Asp Glu Asp Ala Leu Leu Trp Asp Pro Asp Thr
65                  70                  75                  80
Ser Cys Arg Val Phe Val Cys Thr Leu Lys Lys Ile Thr Gly Lys Val
                85                  90                  95
Val Ser Phe Ser Ser Tyr Glu His Trp Ala Gly Gln Ser Ser Leu Tyr
            100                 105                 110
Lys Val Leu Arg Ile Trp Glu Ala Gly Arg Ala Thr Ser Ala Ala Pro
        115                 120                 125
Ser Phe Phe Asp Pro Leu Val Ile Phe Asp Pro Val Leu Arg Phe Glu
    130                 135                 140
Arg Val Phe Leu Asp Gly Ala Leu Gly Ala Asn Asn Ser Val Ala Gln
145                 150                 155                 160
Met Trp Phe His Ala Lys Met Leu Trp Glu Glu Asp Leu Lys Ser Arg
                165                 170                 175
Leu Gly Cys Leu Val Ser Leu Gly Thr Gly Met Arg Ser Glu Thr Glu
            180                 185                 190
Phe Thr Gly Gly Phe Ile Gln Glu Leu Lys Leu Arg Lys Arg Thr Leu
        195                 200                 205
Thr Asp Ser Glu Phe Glu Ala Asp Thr Phe Ala Tyr Glu His Tyr Asp
    210                 215                 220
Leu Val Glu Glu His Arg Tyr Phe Arg Phe Asn Val Ser Asn Ala Leu
225                 230                 235                 240
Gly Asp Ile Gly Leu Glu Glu Val Gln Lys Met Asp Lys Ile Val Ser
                245                 250                 255
Glu Thr Arg Thr Tyr Leu Ala Asp Asp Ala Val Arg Glu Glu Ile Ala
            260                 265                 270
Leu Cys Ala Ala Thr Leu Gln Lys Arg Gln Val
        275                 280
```

<210> 30763
<211> 83
<212> PRT
<213> A.fumigatus

<400> 30763
Arg Cys Gln Asn Cys Trp Tyr Ser Asn Ile Ile Leu Glu Val Lys Leu
1 5 10 15
Asp Ile Asn Asn Leu Tyr Ile Met Asp Met Glu Lys Gln Thr Asp Lys
20 25 30
Glu Lys Leu Asn Leu Leu Cys Leu Asp Gly Gly Gly Val Arg Gly Leu
35 40 45
Ser Ser Leu Tyr Val Leu Lys Asp Met Met Glu Ala Ile Asn Pro Ser
50 55 60
Asn Pro Pro Lys Pro Cys Glu Ile Phe Asp Met Ile Gly Gly Thr Ser
65 70 75 80
Ala Gly Gly

<210> 30764
<211> 195
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (66)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30764
Gly Phe Gly Arg Arg Thr Gln Ser Met Val Leu Leu Gly Lys Leu Ala
1 5 10 15
Arg Ile Pro Phe Glu Ala Asn Val Arg Ile Gln Val Ser Ala Ser Asn
20 25 30
Leu Met Val Ala Ser Pro Val Phe Lys Lys Ala Leu Thr Gly Lys Gly
35 40 45
Lys Glu Gly Ser Thr Phe Val Gly Thr Gly Ser Val Val Ile Thr Thr
50 55 60
Glu Xaa Trp Asp Val Glu Ala Phe Leu Ile Leu Leu Arg Ile Leu Gly
65 70 75 80
Gly Gln His His Lys Leu Pro Lys Arg Val Ser Leu Glu Leu Ala Ala
85 90 95
Lys Ile Ala Val Leu Ala Asp Tyr Tyr Gln Cys Asn Asp Leu Val Gly
100 105 110
Phe Ile Arg Asp Ala Trp Ile Thr Cys Leu Arg Glu Glu Leu Pro Val
115 120 125
Thr Tyr Ser Arg Asn Leu Ile Leu Trp Leu Trp Ile Ser Trp Tyr Phe
130 135 140
Asn Met Pro Leu Lys Phe Lys Lys Ala Thr Ser Val Ala Met Ser Gln
145 150 155 160
Ser Lys Asp Lys Ile Asp Ala Leu Glu Leu Pro Ile Pro Ala Arg Ile
165 170 175
Ile Cys Lys Ser Val Pro Ile Leu Ser Val Arg Glu Ile Ala Asp His
180 185 190
Glu Ser Arg
195

<210> 30765
<211> 517
<212> PRT
<213> A.fumigatus

<400> 30765
Asn Gln Thr Lys Thr Thr Pro Pro Leu His Pro Ser Lys Ile Gly His
1 5 10 15
Leu Gln His Lys His Thr Asp Thr Ser Lys Glu Ser Ser Gly Asn Val
20 25 30
Gly Pro Lys Leu Pro Val Ala Asn Leu Asp Ser His Gly Ala Ser Gly
35 40 45
Asn Thr Cys Gly Ser Leu Gly Ser Leu Thr Cys Ala Ala Gly Ala Gly
50 55 60
Ala Ala Ser Gly Thr Gly Gly His Gly Pro Ser Ala Ser Ser Ser Gly
65 70 75 80
Leu Ala Asp Gln Arg Gly Ala Arg Ala Arg Ser Ile Ser Thr Leu Leu
85 90 95
Gly Leu Gly Leu Ala Ile Lys Val Thr Gly Gly Arg Gly Leu Val Val
100 105 110
Leu Leu Val Val Leu Val His Asp Glu Arg Glu Leu Leu Leu Gly Ala
115 120 125
Ala Asp Ala Val Ser Ser Val Val Thr Ala Gly Gly Val Gly Val Asp
130 135 140
Ser Thr Ala His Thr Gly Gly Ala Glu Ile Val Glu Gln Val Ala Val
145 150 155 160
Leu Leu Leu Val His Arg Ile Leu His Ser Ala Gly Gln Ser Leu Asp
165 170 175
His Ala Val Thr Gln Leu Ala Val Gly Thr Arg Arg Gln Leu Val Gly
180 185 190
Gly Leu Pro Leu Gly Thr Asp Arg Arg Ala Gly Arg Asp Gly Ser Val
195 200 205
Gly Gly Ser Val Ala Cys Thr Val His Thr Gly Gly Arg Tyr Leu Leu
210 215 220
His Leu Asn Gly Gln Val Gly Glu Ile Phe Leu Gly Leu Asp Ile Val
225 230 235 240
Ala Ala Asp Arg Asn Gln Thr Val Val Ile Gly Leu Leu Glu Val His
245 250 255
Ile Asp Asn Thr Thr Ala Pro Asp Val Val His Leu Gly Thr Val Gln
260 265 270
Ser Gly Asp Ile Gly Lys Leu Ala Gly Leu Gly Val Asn Ala Ala Val
275 280 285
Leu Gly Glu Glu Ser Arg Asp Arg Val Leu Gly Lys Phe Leu Ser Ala
290 295 300
Val Leu Val Ala Arg Leu Leu Glu Gly Arg Ile Thr Ala Pro Leu Val
305 310 315 320
Asn Val Val Ala Glu His Val Asp Arg Ala Leu Leu Ile Thr Ala Asp
325 330 335
Lys Val Val Gly Gln Val Gly Thr Asp Val Gly Val Leu Val Gly Gly
340 345 350
Val Ser Asp Lys Gln Gly Gly Ala Val Ile Leu Arg Leu Asp Val Arg
355 360 365
Leu His Val Ser His Gly Ser Leu His Val Gly Asn Arg Ile Gly Val
370 375 380
Val Val Val Ile Gly Asp Leu Val Thr Arg Glu Lys Ala Asn Asp Ile
385 390 395 400
Ala Val Leu Gly Lys Gly Val Asn Asp Ala Gly Ile Ala Leu Val Glu
405 410 415
Val Gly Val Pro Gly Arg Val Arg Thr Val Asp Gly Leu Arg Trp Arg
420 425 430

```
Gly Gln Ile Arg Asn Gln Val Asp Ala Gly Val Val Gln Glu Leu His
        435                 440                 445
Thr Phe Ile Met Val Leu Arg Gly Ile Asp Ser Ile Gly Thr Asp Asp
    450                 455                 460
Ile Gly Ala Gln Leu Leu Gln Val Gly Asn Val Thr Leu Ala Val Val
465                 470                 475                 480
Asn Ile Gly Gln Arg Ile Gly Val Val Gly Val Leu Gly Arg Cys Ala
                485                 490                 495
Val Gly Leu Val Leu Leu Cys Ile Gly Leu Val Ser Gly Gly Asp Arg
            500                 505                 510
Leu Met Gly Phe Leu
        515
```

<210> 30766
<211> 488
<212> PRT
<213> A.fumigatus

<400> 30766

```
Ser Asn Ala Glu Glu Tyr Gln Ala Asn Gly Thr Ser Thr Glu Asn Ser
1               5                   10                  15
Asp Tyr Thr Asp Pro Leu Ala Asn Val Asp Asn Cys Lys Arg Asp Ile
            20                  25                  30
Pro Tyr Leu Lys Gln Leu Arg Thr Asn Val Ile Arg Thr Tyr Ala Val
        35                  40                  45
Asp Pro Thr Lys Asp His Asp Glu Cys Met Lys Leu Leu Asp Asp Ala
    50                  55                  60
Gly Ile Tyr Leu Ile Thr Asp Leu Ser Ala Pro Ser Glu Ser Ile Asn
65                  70                  75                  80
Arg Ala Asp Pro Ala Trp Asn Thr Asp Leu Tyr Lys Arg Tyr Thr Ser
                85                  90                  95
Val Ile Asp Ala Phe Ala Lys Tyr Ser Asn Val Ile Gly Phe Phe Ala
            100                 105                 110
Gly Asn Glu Val Ala Asn Asp Asn Asn Asn Thr Asn Ser Ile Ala Tyr
        115                 120                 125
Val Lys Ala Ala Val Arg Asp Met Lys Ser Tyr Ile Lys Ser Lys Asp
    130                 135                 140
Tyr Arg Ser Ser Leu Leu Val Gly Tyr Ala Thr Asp Glu Asp Ala His
145                 150                 155                 160
Ile Gly Ala Asp Leu Ala Asp Tyr Leu Val Cys Gly Asp Lys Glu Ser
                165                 170                 175
Ser Ile Asp Met Phe Gly Tyr Asn Ile Tyr Glu Trp Cys Gly Asp Ser
            180                 185                 190
Ser Phe Glu Lys Ser Gly Tyr Lys Asp Arg Thr Glu Glu Phe Ser Lys
        195                 200                 205
Tyr Pro Val Pro Ala Phe Phe Ser Glu Tyr Gly Cys Ile Asp Pro Lys
    210                 215                 220
Pro Arg Lys Phe Thr Asp Val Ala Ala Leu Tyr Gly Pro Gln Met Asn
225                 230                 235                 240
Asp Val Trp Ser Gly Gly Ile Val Tyr Met Tyr Phe Gln Glu Ala Asn
                245                 250                 255
Asp Tyr Gly Leu Val Ser Val Ser Gly Asp Asn Val Lys Thr Lys Glu
            260                 265                 270
Asp Phe Ser Tyr Leu Ser Val Gln Met Gln Lys Val Thr Ala Thr Gly
        275                 280                 285
Val Asn Ser Ala Ser Tyr Thr Ala Ser Asn Thr Ala Val Pro Thr Cys
```

```
    290                 295                 300
Pro Ser Val Gly Ala Lys Trp Glu Ala Ser Asn Lys Leu Pro Pro Ser
305                 310                 315                 320
Pro Asn Ser Glu Leu Cys Asp Cys Met Val Glu Thr Leu Ser Cys Thr
                325                 330                 335
Val Lys Asp Ser Val Asp Glu Lys Glu Tyr Gly Asp Leu Phe Asp Tyr
            340                 345                 350
Leu Cys Ala Ala Gly Val Cys Gly Gly Ile Asn Ser Asn Ser Thr Ser
        355                 360                 365
Gly Asp Tyr Gly Ala Tyr Ser Val Cys Ser Ala Lys Gln Lys Leu Ser
    370                 375                 380
Phe Val Met Asn Gln Tyr Tyr Lys Lys Asn Asn Lys Ala Ala Thr Ala
385                 390                 395                 400
Cys Asp Phe Asp Gly Lys Ala Gln Thr Lys Lys Gly Ala Asp Ala Ser
                405                 410                 415
Gly Ser Cys Ala Ser Leu Ile Ser Gln Ala Gly Thr Ala Gly Thr Gly
            420                 425                 430
Ser Val Thr Ala Gly Ala Thr Gly Ser Ser Gly Ser Gly Ser Ala Ser
        435                 440                 445
Glu Thr Ser Lys Gly Ala Ala Gly Val Ala Ala Ser Pro Met Ala Val
    450                 455                 460
Lys Val Gly Asn Trp Gln Phe Gly Ala Tyr Ile Ala Thr Ala Leu Phe
465                 470                 475                 480
Ala Gly Val Gly Met Leu Val Leu
                485
```

<210> 30767
<211> 381
<212> PRT
<213> A.fumigatus

<400> 30767

```
His Arg Tyr Cys Asn Ser Thr Ser Arg Arg Ser Phe Gln Pro Arg Gly
1               5                   10                  15
Glu Asp Gly Glu Leu Thr Glu Gly Val Gly Phe Phe Ser Val Ser Tyr
            20                  25                  30
Asn Pro Asp Asp Gly Arg Arg Ser Ser Ala Ser Val Ala Tyr Ile His
        35                  40                  45
Pro Ile Leu Arg Gly Glu Glu Lys Arg Pro Asn Leu Thr Ile Leu Thr
    50                  55                  60
Asn Ala Trp Val Ser Arg Val Asn Val Glu Gly Asp Thr Val Thr Gly
65                  70                  75                  80
Val Asp Val Thr Leu Gln Ser Gly Val Lys His Thr Leu Arg Ala Lys
                85                  90                  95
Lys Glu Thr Ile Leu Cys Ala Gly Ala Ile Asp Thr Pro Arg Leu Met
            100                 105                 110
Leu Leu Ser Gly Leu Gly Pro Arg Glu Gln Leu Ser Ser Leu Gly Ile
        115                 120                 125
Pro Val Ile Lys Asp Leu Pro Gly Val Gly Glu Asn Leu Leu Asp His
    130                 135                 140
Pro Glu Thr Ile Ile Ile Trp Glu Leu Asn Arg Pro Val Pro Pro Asn
145                 150                 155                 160
Gln Thr Thr Met Asp Ser Asp Ala Gly Ile Phe Leu Arg Arg Glu Ala
                165                 170                 175
Pro Asn Ala Ala Gly Ser Asp Gly Arg Ala Ala Asp Ile Met Met His
            180                 185                 190
```

```
Cys Tyr Gln Ile Pro Phe Cys Leu Asn Thr Ala Arg Leu Gly Tyr Glu
        195                 200                 205
Thr Pro Val Asp Ala Phe Cys Met Thr Pro Asn Ile Pro Arg Pro Arg
    210                 215                 220
Ser Arg Gly Arg Leu Tyr Leu Thr Ser Ala Asp Pro Ser Val Lys Pro
225                 230                 235                 240
Ala Leu Asp Phe Arg Tyr Phe Thr Asp Pro Glu Gly Tyr Asp Ala Ala
                245                 250                 255
Thr Ile Val Ala Gly Leu Lys Ala Ala Arg Arg Ile Ala Gln Gln Ala
            260                 265                 270
Pro Phe Lys Asp Trp Ile Lys Arg Glu Val Ala Pro Gly Pro Lys Val
        275                 280                 285
Gln Thr Asp Glu Glu Leu Ser Glu Tyr Gly Arg Arg Val Ala His Thr
    290                 295                 300
Val Tyr His Pro Ala Gly Thr Thr Lys Met Gly Asp Ile Ser Arg Asp
305                 310                 315                 320
Pro Met Ala Val Val Asp His Gln Leu Lys Val Arg Gly Leu Asn Asn
                325                 330                 335
Val Arg Ile Ala Asp Ala Gly Val Phe Pro Glu Met Thr Thr Ile Asn
            340                 345                 350
Pro Met Leu Thr Val Leu Ala Ile Gly Glu Arg Ala Ala Glu Leu Ile
        355                 360                 365
Ala Glu Glu Ala Gly Trp Thr Arg Glu Gln Pro Lys Leu
    370                 375                 380
```

<210> 30768
<211> 114
<212> PRT
<213> A.fumigatus

<400> 30768

```
Glu Glu His Gln Ser Arg Arg Ile Asn Ser Thr Gly Thr Lys Asn Ser
1               5                   10                  15
Phe Leu Leu Gly Ser Gln Gly Val Phe Asp Thr Gly Leu Gln Ser His
            20                  25                  30
Val Asn Thr Gly Asp Gly Val Ser Phe Asp Ile His Ala Arg His Pro
        35                  40                  45
Arg Val Gly Lys Asn Ser Gln Val Gly Ala Leu Phe Leu Thr Ala Gln
    50                  55                  60
Asp Arg Val Asp Val Cys His Thr Ser Thr Ala Ala Thr Ala Ile Ile
65                  70                  75                  80
Trp Ile Val Arg Asp Arg Glu Glu Thr Asn Thr Leu Arg Gln Phe Thr
                85                  90                  95
Val Phe Thr Thr Gly Leu Glu Gly Ser Thr Ala Gly Ala Ile Ala Ile
            100                 105                 110
Ser Met
```

<210> 30769
<211> 142
<212> PRT
<213> A.fumigatus

<400> 30769

```
Ser Arg Arg Phe Ser Pro Thr Pro Gly Lys Ser Leu Met Thr Gly Ile
1               5                   10                  15
```

```
Pro Arg Glu Leu Ser Cys Ser Arg Gly Pro Ser Pro Glu Arg Ser Ile
            20                  25                  30
Asn Leu Gly Val Ser Ile Ala Pro Ala Gln Arg Ile Val Ser Phe Leu
        35                  40                  45
Ala Arg Lys Val Cys Leu Thr Pro Asp Cys Arg Val Thr Ser Thr Pro
    50                  55                  60
Val Thr Val Ser Pro Ser Thr Phe Thr Arg Asp Thr His Ala Leu Val
65                  70                  75                  80
Arg Ile Val Lys Leu Gly Arg Phe Ser Ser Pro Arg Lys Ile Gly Trp
                85                  90                  95
Met Tyr Ala Thr Leu Ala Leu Leu Arg Arg Pro Ser Ser Gly Leu Tyr
            100                 105                 110
Glu Thr Glu Lys Lys Pro Thr Pro Ser Val Ser Ser Pro Ser Ser Pro
        115                 120                 125
Arg Gly Trp Lys Asp Arg Arg Leu Val Leu Leu Gln Tyr Arg
    130                 135                 140
```

<210> 30770
<211> 130
<212> PRT
<213> A.fumigatus

<400> 30770

```
Gln Lys Pro Met Lys Leu Cys Gly Phe Pro Asp Gly Val Tyr Asp Trp
1               5                   10                  15
Thr Asn Gly Glu Arg Ile Val Lys Thr Gly Ala Arg Leu Thr Leu Glu
            20                  25                  30
Gly Ser Asp Lys Ile Ala Gly Ser Ser Ala Thr Leu Ile Glu Cys Ile
        35                  40                  45
Asn Asn Phe Arg Arg Trp Ser Gly Ala Ser Ile Ala Asp Ala Ile Asn
    50                  55                  60
Ala Ala Thr Ala Thr Pro Ala Arg Leu Leu Gly Leu Gln Gly Val Lys
65                  70                  75                  80
Gly Ser Leu Asp Ser Gly Ala Asp Ala Asp Leu Val Val Leu Ser Glu
                85                  90                  95
Glu Asp Asp Pro Glu Ser Pro Thr Leu Thr Val Tyr Gln Val Trp Lys
            100                 105                 110
Arg Gly Val Lys Ile His Asp Ser Asp Lys Glu Ile Ala Ser Thr Thr
        115                 120                 125
Thr Val
    130
```

<210> 30771
<211> 108
<212> PRT
<213> A.fumigatus

<400> 30771

```
Val Ser Lys Asp Asn Leu Arg Ile Leu Ala Gly Tyr Thr Asp His Gln
1               5                   10                  15
Leu Pro Phe Asn Phe Leu Pro Gln His Lys Gln Thr Ser Glu Thr Leu
            20                  25                  30
His Arg Thr Arg Asp Val Asp Arg Phe Val Phe Ala Cys Leu Ile Arg
        35                  40                  45
Ile Ile Gly Ser Ser Ser Asp Asp His Met Ala Thr Ile Gly His Tyr
    50                  55                  60
```

```
Met Thr Lys Ser Gly Ser Asn Lys Thr Met Leu Gly Ile Asp Leu Trp
65                  70                  75                  80
Ile Leu Ser Leu Gly Gln Ser Gly Ile Arg Ser Arg Gly Gly Thr Gly
                85                  90                  95
Ala Val Arg Thr Ala Leu Val Gly Arg Leu Arg Arg
            100                 105
```

<210> 30772
<211> 528
<212> PRT
<213> A.fumigatus

<400> 30772

```
Pro Arg Arg Ser Pro Leu Leu Phe Tyr Lys Leu Ser Ser Ser Met Ala
1               5                  10                  15
Ser Arg Ala Asn Ala Ser Ser Pro Thr Arg Gln Lys Asn His Glu Asp
            20                  25                  30
Leu Ser Glu Thr Thr Ser Gly Ala Val Gly Glu Glu Gly Ala Val Thr
        35                  40                  45
Arg Ala Pro Lys Ser Gly Met Glu Ser Ser Thr Gly Phe Glu Ser Glu
    50                  55                  60
Asp Arg Val Tyr Pro Ile Arg Ser Val Ile Ser Val Asp Pro Ser Thr
65                  70                  75                  80
Val Ser Gln Ser Gln Gln Gln Ala Glu Ser Asn Leu Ser Ser Pro Ala
                85                  90                  95
Thr Gly Ala Arg Glu Trp Ser Ile Ile Asn Ala Glu Thr Trp Asp Lys
            100                 105                 110
Met Arg Ala Gln Thr Lys Thr Ser Ala Gly Asn Phe Ser Ala Thr Glu
        115                 120                 125
Pro Pro Pro Pro Ala Pro Asp Thr Ala Gly Ser Ser Ser Glu Pro Pro
    130                 135                 140
Asp Gln Gly Arg Ser His Ser Ala Ser Pro Thr Pro Thr Pro Asp Ser
145                 150                 155                 160
Ala Leu Thr Lys Thr Gln Asp Pro Glu Val Asp Ser Glu His Gly Leu
                165                 170                 175
Val Thr Ala Arg Phe Arg His Val Val Thr Asp Gly Gly His Met Val
            180                 185                 190
Ile Thr Gly Arg Ala Asn Asp Ser Tyr Gln Ala Cys Glu Asp Glu Pro
        195                 200                 205
Ile His Ile Pro Gly Ala Val Gln Ser Phe Gly Cys Leu Leu Val Leu
    210                 215                 220
Arg Glu Glu Ile Glu Gly Lys Leu Val Val Arg Val Ala Ser Glu Asn
225                 230                 235                 240
Ser Glu Val Ile Leu Gly His Ser Pro Lys Cys Leu Phe Ala Leu Pro
                245                 250                 255
Asn Phe Cys Asp Ile Leu Asp Glu Glu Gln Lys Asp Asn Leu Leu Asp
            260                 265                 270
His Leu Asp Leu Ile Arg Asp Asp Gly Phe Asp Pro Ser Val Asp Gly
        275                 280                 285
Pro Glu Val Phe Leu Leu Ser Val Lys Leu Pro Ser Gly Lys Pro Arg
    290                 295                 300
Arg Phe Trp Cys Ala Thr His Leu Ser Pro Ala Asp Ser Asn Ser Ile
305                 310                 315                 320
Ile Cys Glu Phe Glu Leu Glu Asp Asp Arg Ile Asn Pro Leu Ser Val
                325                 330                 335
Ser Gly Leu Thr Thr Pro Val Thr Pro Thr Asp Thr Leu Gly Val Glu
```

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            340                 345                 350
Pro Thr Pro Glu Gln Leu Glu His Ser Thr Val Asn Ile Ser Gln Pro
        355                 360                 365
Leu Arg Leu Leu Arg Asn Ala Arg Arg Arg Arg Gly Glu Ala Ala Ala
    370                 375                 380
Met Glu Val Phe Ser Ile Leu Ser Gln Ile Gln Asp Gln Leu Gly Arg
385                 390                 395                 400
Thr Lys Ser Leu Asp Ser Leu Leu Asn Thr Thr Thr Gly Leu Val Lys
                405                 410                 415
Glu Leu Thr Gly Phe His Arg Val Leu Ile Tyr Gln Phe Asp Thr Glu
            420                 425                 430
Trp Asn Gly Thr Val Val Ala Glu Leu Val Asp Pro Lys Ala Ser Val
        435                 440                 445
Asp Leu Tyr Lys Gly Leu Cys Phe Pro Ala Ser Asp Ile Pro Lys Gln
    450                 455                 460
Ala Arg Asp Leu Tyr Arg Ile Asn Lys Val Arg Leu Leu Tyr Asp Arg
465                 470                 475                 480
Asp Gln Val Thr Ser Arg Leu Val Cys Arg Thr Leu Glu Asp Leu Gln
                485                 490                 495
Thr Pro Val Asp Met Thr His Ser Tyr Leu Arg Ala Met Ser Pro Ile
            500                 505                 510
His Arg Leu His Gln Gly Ala Glu Gly His Ala Asn Ala Leu Gly Glu
        515                 520                 525

<210> 30773
<211> 77
<212> PRT
<213> A.fumigatus

<400> 30773
Asp Ile Ser Pro His Trp Ile Val Ser Asp Gly Gln Lys Phe Gln Thr
1               5                   10                  15
Asp Ser Leu Gln Leu Lys Leu Asp Arg Ala Lys Gln Arg Glu Gln Ala
            20                  25                  30
Ile Arg Lys Gly Gln Met Ala Asp Pro Asn Gln Pro Thr Ser Leu Asn
        35                  40                  45
Gln Ala Ile Thr Pro Val Gly Thr Cys Thr Ser Met Cys Pro Val Leu
    50                  55                  60
Thr Thr Gly Leu Glu Gly Cys Ala Leu Arg Asp Ser Phe
65                  70                  75

<210> 30774
<211> 282
<212> PRT
<213> A.fumigatus

<400> 30774
Leu Phe Gln Phe Val Leu Ser Ala Leu Phe His His Ile Pro Leu Pro
1               5                   10                  15
Val Gln Ser Asn Leu Arg Arg Gln Thr Met Asn Thr Ala Ile Ile Thr
            20                  25                  30
Gly Ala Ala Gln Gly Val Gly Leu Cys Ile Ala Glu Ala Leu Ala Gln
        35                  40                  45
Arg Asn Tyr Arg Ile Val Leu Ser Asp Ile Asp Thr Glu Lys Gly Pro
    50                  55                  60
Ala Ala Ala Ser Lys Leu Asn Leu Thr His Gly Glu Gly Thr Ala Ala
```

65 70 75 80
Phe Phe His Cys Asp Leu Ser Asn Leu Arg Glu Ile Asp Ala Leu Leu
85 90 95
Ser Phe Thr Ile Glu Thr Met Gly Gly Phe Ser Val Leu Ile Asn Asn
100 105 110
Ala Gly Tyr Leu Arg Ala Pro Phe Leu Ala Leu Ser Ala Gln Asp Ile
115 120 125
Gln Asp Met Ile Thr Val Asn Leu Thr Ala Pro Ile Tyr Ala Thr Gln
130 135 140
Gln Ala Ile Lys Tyr Trp Asp Gly Leu His Gln Gly Gln Ala Gly Cys
145 150 155 160
Val Val Ser Val Thr Ser Ser Ser Ser Phe Lys Thr Tyr Ala Ser Ile
165 170 175
Ala Pro Tyr Gly Ala Ala Lys Ala Gly Ala Ala Met Phe Thr Phe Ala
180 185 190
Ala Gly Ala Phe His Pro Arg Val Arg Val Asn Ala Val Ala Pro Thr
195 200 205
Ala Ile Ala Thr Gly Phe Asp Lys Asn Arg Met Arg Val Glu Thr Asp
210 215 220
Arg Thr Gly Pro Gly Tyr Thr Pro Glu Glu Glu Met Arg Ala Met Gly
225 230 235 240
Leu Lys Arg Leu Gln Pro Gln Glu Val Ala Glu Ala Val Val Arg Cys
245 250 255
Val Glu Asp Lys Gly Leu Tyr Gly Lys Val Leu Tyr Leu Asp Ala Val
260 265 270
Glu Gly Ile Lys Ile His Asp Gly Tyr Thr
275 280

<210> 30775
<211> 149
<212> PRT
<213> A.fumigatus

<400> 30775
Ser Ala Leu Pro Ser Ser Pro Val Val Lys Met Pro Arg Val Ser Phe
1 5 10 15
Thr Lys Gly Thr Thr Leu Gln Gly His Tyr Ile Pro Pro Gly Thr Glu
20 25 30
Ile Ala Phe Asn Leu Ile Ala Met Asn Asn Arg Glu Asp Val Trp Glu
35 40 45
Glu Pro Glu Arg Phe Leu Pro Asp Arg Phe Leu Lys Asp Ser Asp Leu
50 55 60
Lys Arg Ser Val Phe Ala Phe Ser Tyr Gly Thr Arg Ser Cys Ile Gly
65 70 75 80
Arg His Leu Ala Trp Met Glu Met Met Thr Ile Leu Ala Asn Leu Leu
85 90 95
Lys Asp Tyr Asp Trp Ser Leu Pro Glu Asp Ser Leu Tyr Gly Pro His
100 105 110
His Val Asp Glu Lys Gly Ile Pro Ile Arg Met Pro Ser Lys Cys His
115 120 125
Ile Val Phe Ala Pro Thr His Pro Asp Arg Asp Cys Gln Leu Val Ile
130 135 140
Ser Arg Pro Lys Thr
145

<210> 30776

<211> 98
<212> PRT
<213> A.fumigatus

<400> 30776
Ser Ser Leu Asn Ile Thr Lys Ile Thr Lys Leu Leu Tyr Val Tyr Pro
1 5 10 15
Ser Cys Ile Leu Ile Pro Ser Thr Ala Ser Lys Tyr Arg Thr Phe Pro
20 25 30
Tyr Ser Pro Leu Ser Ser Thr His Arg Thr Thr Ala Ser Ala Thr Ser
35 40 45
Cys Gly Cys Asn Leu Phe Asn Pro Ile Ala Arg Ile Ser Ser Ser Gly
50 55 60
Val Tyr Pro Gly Pro Val Arg Ser Val Ser Thr Arg Met Arg Phe Leu
65 70 75 80
Ser Lys Pro Val Ala Ile Ala Val Gly Ala Thr Ala Phe Thr Leu Thr
85 90 95
Arg Gly

<210> 30777
<211> 488
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (62),(79),(80),(438)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30777
Glu Ser Ser Ala Ile Arg Leu Phe Leu Pro Thr Ser Leu Pro Ser Ile
1 5 10 15
Phe Arg Ile Leu Ile Ser Leu Phe Pro Phe Thr Thr Leu Cys Ser Ser
20 25 30
Leu Val Gly Pro Glu Thr Gln Ser Leu His Asp Thr Met Ala Val Ala
35 40 45
Thr Leu Ile Ser Ile Leu Phe Ala Val Leu Ala Leu Arg Xaa Cys Tyr
50 55 60
Leu Leu Ile His Ala Leu Phe Leu Ser Pro Leu Arg His Ile Xaa Xaa
65 70 75 80
Pro Phe Met Ala Arg Val Thr Ser Lys Arg Pro Leu Trp His Leu Leu
85 90 95
Thr Gly Lys Ala Glu Ile Ala Ala Arg Gln Asp Tyr Ser Thr Phe Gly
100 105 110
Asp Ile Tyr Leu Cys Lys Pro Asn Thr Val Tyr Leu Cys Asp Pro His
115 120 125
Asp Ala Cys Thr Val Leu Ser Ser His Ala Phe Arg Lys Thr Asp Met
130 135 140
Tyr Arg Val Phe Glu Tyr Glu Gly Ile Pro Asn Val Ser Thr Phe Thr
145 150 155 160
Asp Pro Ala Gln Ala Gln Arg Arg Arg Arg Gln Leu His Pro Phe Phe
165 170 175
Asn Asn Ala Tyr Leu Thr Gln Met Glu Pro Val Met Leu Lys Tyr Gly
180 185 190
Ile Gln Ala Leu Lys Ala Arg Trp Asp Ala Gln Leu Ala Arg His Lys

```
        195                 200                 205
Lys Val Glu Val Asn Tyr Arg Phe Asp Thr Gln Leu Ala Met Phe Asp
    210                 215                 220
Ile Thr Gly Ala Leu Val Phe Gly Arg Glu Phe His Ala Leu Glu Thr
225                 230                 235                 240
Ser Asn Leu Val Tyr Thr Lys Trp Val Asn Asn Thr Leu Ser Tyr Met
                245                 250                 255
Leu Val Ser His Tyr Phe Pro Trp Val Lys Arg Val Pro Leu Ser Trp
            260                 265                 270
Leu Val Arg Gly Leu Lys Gln Ser Tyr Asp Asp Leu Val Ala Phe Ser
        275                 280                 285
Gln Lys Ser Ile Ala Ile Arg Gln Ala Asp Leu Gln Ala Gly Arg Pro
    290                 295                 300
Lys Pro Ala Asp Leu Leu Gln Ala Leu Leu Asp Ala Glu Asp Pro Asp
305                 310                 315                 320
Ser Lys Ala Pro Met Thr Ala Arg Glu Val Gln Ala Glu Ser Ile Ala
                325                 330                 335
Met Leu Val Gly Gly Ser Glu Ser Thr Ser Ser Val Ile Ser Trp Val
            340                 345                 350
Ile His Phe Leu Leu Leu Tyr Pro Glu His Leu Gln Ala Val Val Ala
        355                 360                 365
Glu Thr Arg Ala Asn Phe Pro Ala Asp His Thr Ile Thr Phe Asn Glu
    370                 375                 380
Ser Lys Ala Asn Leu Pro Tyr Leu Glu Ala Cys Ile Tyr Glu Thr Leu
385                 390                 395                 400
Arg Cys Ile Pro Thr Ala Ser Thr Ser Phe Pro Arg Val Ser Asp Gln
                405                 410                 415
Ala Ile Ile Leu Lys Gly Tyr Tyr Ile Pro Ala Gly Thr Glu Ile Ala
            420                 425                 430
Thr Asn Lys Cys Ala Xaa His Leu His Gln Pro Ser Trp Gln Asp Pro
        435                 440                 445
Asp Arg Phe Tyr Pro Pro Arg Phe Leu Asn Gln Gly Asp Ile Pro Arg
    450                 455                 460
Asn Pro Ala Glu Tyr Ala Leu Arg Cys Leu Pro Asp Ala Gly Phe Asp
465                 470                 475                 480
Leu Ala Gly Thr Trp Leu Gly Pro
                485
```

<210> 30778
<211> 85
<212> PRT
<213> A.fumigatus

<400> 30778

```
Ser Pro Pro Pro His Pro Ser Thr Gly Pro Ser His Thr Ala Pro Cys
1               5                  10                  15
Leu Pro His Ile Ala Pro Pro Leu Pro Pro Leu Leu Ala Ala Ala Thr
            20                  25                  30
Ser Ser Thr Pro Leu Pro Ala Ser Leu Pro Arg Val Tyr Thr Leu Gly
        35                  40                  45
Pro Cys Gly Pro Ser Leu Pro Ala Cys Asp Ser Cys Gln Ser Pro Leu
    50                  55                  60
Gln Leu Arg Ser Ala Pro Pro His Ser Pro Ser Arg Val Asp Glu Thr
65                  70                  75                  80
Pro Gln Pro Gln Arg
                85
```

<210> 30779
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30779
Cys Arg Glu Arg Thr Leu Lys Val Tyr Ile Thr Arg Ile Asn Glu Leu
1 5 10 15
Ile Gln Pro Ala Gly Gln Phe Leu Gly Arg Lys Arg Gln Cys Leu Gln
20 25 30
Ile Phe Ser Asp Lys Tyr Ser Ala Ala Phe Pro Ser Pro Val Glu Arg
35 40 45
Asp Ser His Asn Ala Asn Ile Gly Lys Tyr Gln Ala Asn Glu
50 55 60

<210> 30780
<211> 312
<212> PRT
<213> A.fumigatus

<400> 30780
Arg Gly Ser Trp Glu Asn Gln Glu Asn Pro Gly Arg Gly Leu Arg Gly
1 5 10 15
Arg Gln Arg Arg Arg Ala Leu Glu Pro Lys Ser Ala His Gly Gly Arg
20 25 30
Ile Tyr Thr Gly Ser Gly Met Ala Cys Ile Pro Gly Gln His Thr Val
35 40 45
Ala Pro Ser Ser Glu Phe Glu Thr Gly Ser Lys Leu Leu Ala Val Arg
50 55 60
Pro Ala Asn Arg Asn Lys Lys Pro Pro Pro Pro Pro Pro Lys Ser His
65 70 75 80
His Gly Lys Leu Ile Asn Pro Ser Pro His Ala Thr Ser Ser Gln Pro
85 90 95
Gln Gly Val Pro Pro Arg Pro Thr Lys Arg Phe Ser Tyr His Gly Thr
100 105 110
Ser Ser Glu Thr Ser Leu Ser Leu Thr Pro Asp Thr Pro Pro Ser Arg
115 120 125
Ser Ser Gln Pro Arg Ile Asp Tyr Phe Thr Pro Leu His Asp Asn Pro
130 135 140
Ala Pro Gln Ser Ala Glu Thr Leu Arg Arg Ser Gln Ser Gln His Lys
145 150 155 160
Arg Pro Pro Thr Pro Pro Leu Ser Arg Arg His Ser Gln Met Arg Arg
165 170 175
Ser Lys Ser Thr Met Ser Arg Thr Asn Leu Ser Arg Leu Ser Met Pro
180 185 190
Ala Gly Lys Ile Glu Val Asn Ala Ser Pro Pro Ser Ser Pro Gly Pro
195 200 205
Gln Ala Gln Glu Pro Arg Thr Ala Pro Pro Met Ala Asp Glu Ala Glu
210 215 220
Pro Asp Pro Gly Gln Arg Glu Pro Pro Leu Ser Arg Arg Ala Ser Gln
225 230 235 240
Val Asn Pro Leu Pro Pro Pro Pro Pro Pro Arg Arg Asp Arg Val Ser
245 250 255
Ser Asn His Ser Asn Ser Arg Ser Gln Ser Ala Gln Lys Lys Gln Ala
260 265 270

```
Glu Asp Glu Asp Phe Ile Pro Arg Pro Ser Asn Ala Asn Asp Ile Leu
        275                 280                 285
Ala Asp Leu Ser Arg Leu Gln Lys Glu Val Asp Asp Leu Arg Gly His
    290                 295                 300
Tyr Glu Ser Arg Lys Val Ser His
305                 310
```

<210> 30781
<211> 351
<212> PRT
<213> A.fumigatus

<400> 30781

```
Val Tyr Ala Ser Ala Val Pro Ser Ser Arg Val Val Lys Met Leu Leu
1                   5                   10                  15
Glu Thr Ser Ala Lys Pro Leu Thr Cys His Arg Val Pro Pro Ser Phe
            20                  25                  30
Leu Val Gly Glu Gly Ala Thr Asp Phe Ala Tyr Glu Gln Gly Leu Val
        35                  40                  45
Ile Leu Pro Pro Asp Gly Leu Ile Ser Arg Phe Ser Lys Glu Arg Trp
    50                  55                  60
His Arg Trp Leu Gln Asp Leu Glu Ala Ala Glu Leu Val Glu Arg Lys
65                  70                  75                  80
Arg Asp Pro Ser Arg Phe Arg Met Glu Glu Asp Arg Ala Ser Phe Leu
                85                  90                  95
Arg Arg Pro Met Leu Asn Arg Asn Pro Ala Arg Leu Ile Asp Asn Thr
            100                 105                 110
Arg Leu Arg Pro His Leu Pro Ser Ser Pro Phe Thr Gly Val Asp Leu
        115                 120                 125
Leu Asn Pro Leu Pro Arg Leu Gln Ala Leu Gly Ser Arg Gln Thr Ile
    130                 135                 140
Ala Pro Ala Pro Pro Ala Met Pro Ser Asn Gln Gly His Gly Met Gly
145                 150                 155                 160
Pro Ala Ile Gly Gln Pro Met Ala Val Ala Gly Gly Gln Ser Met Ala
                165                 170                 175
Ser Ala Pro Glu Gln Gly Met Ala Ala Ser Ala Asn Thr His Ala Asp
            180                 185                 190
Gly Ala Thr Phe Arg Ala Cys Pro Thr Lys Ala Pro Cys Ala Pro Asp
        195                 200                 205
Thr Ser Thr Thr Ala His Pro Gly Ala Ala Asp Glu Asp Glu Asp Met
    210                 215                 220
Ile Ser Asp Thr Val Gly Ala Ile Ala Val Asp Cys Tyr Gly Asn Ile
225                 230                 235                 240
Ala Ala Gly Ser Ser Ser Gly Gly Ile Gly Ala Lys His Arg Gly Arg
                245                 250                 255
Ile Gly Pro Ala Ala Leu Val Gly Ile Gly Thr Tyr Val Ile Pro Val
            260                 265                 270
Asp Pro Ser Asp Pro Glu Gln Val Ser Val Ala Ser Val Thr Ser Gly
        275                 280                 285
Thr Gly Glu His Ile Ala Thr Thr Met Ala Ala Gln Thr Ser Ala Ala
    290                 295                 300
Arg Leu Tyr Tyr Cys Gln Lys Lys Cys Lys Asp Gly Thr Phe Glu Ser
305                 310                 315                 320
Val Ser Glu Asp Glu Ala Met Asn Ala Ile Ile Ala Thr Glu Phe Met
                325                 330                 335
Gly Glu Leu Leu Tyr Ser Ile Phe Leu Thr Thr Ile Asp Arg Glu
```

340 345 350

<210> 30782
<211> 75
<212> PRT
<213> A.fumigatus

<400> 30782
Ile Ile Glu Gly Glu Glu Trp Lys Ile Ala Phe Arg Ile Lys Phe Arg
1 5 10 15
Tyr Phe Lys Tyr Leu Val Ile Leu Phe Arg Leu Ile Asn Ile Leu Val
20 25 30
Leu Phe Lys Arg Phe Ile Lys Lys Val Leu His Lys Val Leu His Tyr
35 40 45
Phe Ile Val Val Tyr Leu Asp Asn Ile Leu Ile Phe Leu Glu Asn Arg
50 55 60
Ser Lys Tyr Ile Glu Tyr Ile Lys Glu Val Leu
65 70 75

<210> 30783
<211> 227
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (126)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30783
Glu Asp Asp Phe Pro Val Asp Val Arg Tyr Asn Gly Asn Asn Gln Gln
1 5 10 15
Phe Ala Pro Pro Pro Gly Thr Ser Asp Gly Arg Pro Pro Ala Thr Ala
20 25 30
Leu Ser Glu Lys Glu Asp His Asp Gln Pro Gly Thr Gly Thr Ser Asn
35 40 45
Arg His Pro Ser Ile Leu Arg Lys Gly Met Asn Thr Ala Ala Ala Arg
50 55 60
Ala Arg Gly Glu Ser Ile Ser Arg Lys His Val Asp Phe Ser Leu Gly
65 70 75 80
Met Arg Asp Val Ser Ser Met Asp Val Met Gly Asp Val Phe Glu Gly
85 90 95
Arg Gly Arg Arg Val Asp Glu Val Val Arg Leu Ala Asn Arg Glu Asn
100 105 110
Asp Glu Arg Arg Ile Gln Glu Val Glu Glu Glu Gly Glu Xaa Glu Arg
115 120 125
Arg Ser Arg Ala Ser Leu Ser Lys Thr Arg Thr Ser Asn Ser Gly Pro
130 135 140
Ser Val Arg Ala Ala Thr Gly Ser Asp Gly Arg Arg Ser Thr Asp Ser
145 150 155 160
His Gly Gly His Ser Ile Ser Ser Ile Ser Arg Ser Arg Phe Phe His
165 170 175
His Arg Thr His Pro Val Gln Glu Gln Glu Asp Met Met Glu Gln Gly
180 185 190
Arg Ser Asp Ile Gly Pro Ala Leu Ser Gln Ile Arg Thr Ile Ser Pro
195 200 205

```
Ser Ala Arg Ser Thr Asp Asp Arg Gly Ser Thr Ile Asn Arg Gln Pro
    210                 215                 220
Thr Gly His
225

<210> 30784
<211> 71
<212> PRT
<213> A.fumigatus

<400> 30784
Asp Arg Ser Gln Val Phe Leu Thr Val His Tyr Met Ala Arg His Cys
1               5                   10                  15
Ile Pro Ile Cys Phe Thr Met Ala His Leu Leu Cys Ile Thr Lys Asp
            20                  25                  30
Leu Phe Gln Tyr Ala Ser Ser Leu Val Lys Leu Ser Ser Pro Ile Lys
        35                  40                  45
Ser Val Thr Ser Ala Ser Pro His Leu Ile Phe Val Ser Leu Leu Leu
    50                  55                  60
Phe Tyr Leu Ile Cys Gln Gly
65                  70

<210> 30785
<211> 156
<212> PRT
<213> A.fumigatus

<400> 30785
Leu Thr Gly Lys Arg Leu Thr Arg Gln Asp Val Thr Cys Gly Leu Leu
1               5                   10                  15
Ala Ile Phe Gln Tyr Gly Leu Leu Thr Ser Ala Arg Glu Ile Phe Asn
            20                  25                  30
Pro Arg Phe Asn Leu Thr Ser Ala Leu Val Ser Gly Leu Phe Tyr Leu
        35                  40                  45
Val Pro Gly Ala Gly Phe Leu Leu Gly Ser Ile Ile Gly Gly Arg Leu
    50                  55                  60
Ser Asp Arg Thr Val Lys Arg Tyr Ile Ala Arg Arg Gly Gly Leu Arg
65                  70                  75                  80
Leu Pro Gln Asp Arg Leu Asn Ser Gly Leu Ala Met Leu Cys Gly Val
                85                  90                  95
Leu Pro Val Ala Val Leu Val Tyr Gly Trp Thr Leu Glu Lys Arg Ala
            100                 105                 110
Gly Gly Met Ala Val Pro Ile Ile Ala Ala Phe Trp Ala Gly Val Gly
        115                 120                 125
Leu Met Gly Ser Phe Asn Gly Leu Asn Thr Tyr Ala Ala Gly Glu Phe
    130                 135                 140
Ser Met Gly Lys Val Lys Val Asn Val Lys Val Met
145                 150                 155

<210> 30786
<211> 168
<212> PRT
<213> A.fumigatus

<400> 30786
Arg Ser Ala Asp Pro Ser Thr Ala Arg Gly Glu Asp Ser Pro Ala Gln
```

```
1               5                   10                  15
Val His Asp Glu Gln Phe Ser Asp Pro Asp Tyr Gln Thr Ala Asn Ile
            20                  25                  30
Glu Leu Ala Arg Ile Val Gly Glu Thr Ile Ala Lys Leu Tyr Ser Arg
        35                  40                  45
Arg Lys Tyr Ser Glu Thr Phe Leu Gln Arg Val Gln Lys Leu Leu Lys
    50                  55                  60
Ala Leu Lys Asn Trp Val Asp Thr Leu Pro Asp His Leu Arg Leu Asn
65                  70                  75                  80
Glu Asn Asp Pro Glu Met Asn Pro Lys His Ile Ser Ser Leu His Leu
                85                  90                  95
Ala Phe Asn Gln Val Leu Tyr Leu Ala Ser Ser Phe Phe Glu Asn Asn
            100                 105                 110
Thr Asp Leu Asp Ser Val Leu Tyr Leu Pro Pro Val Arg Pro Ser Ser
        115                 120                 125
Thr Ser Ser Ser Lys Ser Ala Ser Pro Arg Pro Thr Pro Arg Ala Arg
    130                 135                 140
Thr Met Pro Ser His Asn Pro Ser Gly Arg Trp Val Lys Arg Ala Tyr
145                 150                 155                 160
Met Gln Leu Ala Thr Val Thr Pro
                165
```

<210> 30787
<211> 466
<212> PRT
<213> A.fumigatus

<400> 30787

```
Glu Gly Leu Leu Asp Arg Ala Gly Gly His Thr Lys Arg Gly His Ala
1               5                   10                  15
Pro Thr Ser Trp Arg Ser Leu His Phe Val Ser Glu Ser Arg Val Ser
            20                  25                  30
Ile Thr Glu Arg Phe Leu Gly Gly Phe Arg Asn Lys Gly Trp Thr Gly
        35                  40                  45
Lys Thr Gly Met Arg Ala Lys Ala Leu Phe Arg Leu Thr Asp Asp Trp
    50                  55                  60
Leu Asp Ile Thr Pro Thr Leu Ala Leu Arg Ser Asp Gln Val Glu Pro
65                  70                  75                  80
Asn Asp Glu Arg Ala Trp Gln Arg Asp Ile Ala Lys Phe Leu Lys Lys
                85                  90                  95
Ala Pro Ser Arg Val Arg Asp Thr His Arg Leu Arg Glu Thr Ala Val
            100                 105                 110
Ala Arg Ile Pro Ala Glu Ala Gly Asp Gly Tyr Phe Gln Val Val Leu
        115                 120                 125
Cys Gln Gly Pro Lys Lys Lys Val Leu Cys Thr Ser Pro Val Phe Arg
    130                 135                 140
Ile Leu Ser Thr Ser Leu Glu Pro Ser Ser Ile Arg Gly Ala Ser Leu
145                 150                 155                 160
Ala Thr Leu Pro Leu Glu Val Gly Ala Met Val Leu Gly Leu Tyr Ala
                165                 170                 175
Gln Thr Ala Ala Gln Thr Val Ile Asn Pro Ala Thr Ser Leu Val Gln
            180                 185                 190
Ser Thr Ile Gln Pro Leu Lys Pro Ser Trp Val Thr Gln Thr Ala Ala
        195                 200                 205
Glu Thr Ala Tyr Gly Ile Gly Met Ser Met Arg Ser Ser Asp Asp Asp
    210                 215                 220
```

```
Ser Thr Gln Gly Pro Ala Ala Ala Met Ala Arg Gly Gln Gln Glu Ala
225                 230                 235                 240
Ile Ser Leu Glu Thr Gly Pro Ser Pro Pro Tyr Pro Met Ser Phe Lys
                245                 250                 255
Ala Arg Ala Glu Ala Ile Gln Gly Glu Ser Val Tyr Asp Met Gln Arg
            260                 265                 270
Met Arg Leu Ser Lys Val Pro Asp Leu Ile Leu Asp Arg Leu His Gly
        275                 280                 285
Phe Phe Phe Gly Trp Ala Arg Leu Leu Phe Ala Arg Glu Asn Gly Glu
    290                 295                 300
Trp Thr Gly Ser Gln Trp Tyr Gln Ala Ile Leu Ala Ile Arg Asn Leu
305                 310                 315                 320
Asp Leu Ser Gln Gln Thr His Val Asn Met Ser Gln Val Met Lys Arg
                325                 330                 335
Val Thr Thr Val Arg Phe Leu Glu Glu Val Glu Leu Pro Val Gln Ser
            340                 345                 350
Arg Val Glu Val Arg Val Leu Gly Phe Leu Arg Pro Asp Met Pro Pro
        355                 360                 365
Pro Arg Gly Ile Thr Glu Glu Glu Leu Leu Glu Ala Arg Asn Ala Ala
    370                 375                 380
Ala Glu Ala Ala Met Leu Ala Asp Ala Cys Asp Ala Ser Tyr Ala Gln
385                 390                 395                 400
Asn Val Leu Asp His Pro Ala Trp Gly Pro Asp Ser Gln Arg Glu Ala
                405                 410                 415
Gly Val Val Gly Arg Ala Lys Glu Gly Ile Glu Asn Ile Trp Ala Arg
            420                 425                 430
Gly Gln Lys Val Val Glu Arg Val Pro Leu His Trp Leu Gly Val Arg
        435                 440                 445
Ser Pro Thr Ala Glu Ile Phe Thr Thr Gly Leu Glu Ala Ser Ala Leu
    450                 455                 460
Thr Asn
465
```

<210> 30788
<211> 148
<212> PRT
<213> A.fumigatus

<400> 30788

```
Lys Arg Leu Arg Arg Val Cys Ala Thr His Ile Ala Cys Ala Arg Arg
1               5                   10                  15
Pro Ser His Gly Phe Leu Leu Arg Pro Ala Thr Gly Thr Phe Arg Leu
            20                  25                  30
Tyr Phe Val Arg Ala Pro Lys Lys Arg Phe Phe Val Arg Val Gln Cys
        35                  40                  45
Phe Ala Phe Phe Pro Pro Leu Leu Asn Arg Ala Arg Phe Gly Ala Leu
    50                  55                  60
Val Trp Leu Pro Ser His Trp Arg Trp Val Arg Trp Cys Trp Gly Tyr
65                  70                  75                  80
Thr Arg Arg Gln Arg Arg Arg Pro Leu Leu Thr Arg Pro His Arg Ser
                85                  90                  95
Tyr Asn Gln Gln Phe Asn Leu Leu Ser Pro Pro Gly Ser His Arg Leu
            100                 105                 110
Leu Leu Arg Gln Pro Thr Gly Leu Ala Cys Pro Cys Asp Gln Ala Met
        115                 120                 125
Thr Thr Val Leu Arg Ala Leu Arg Gln Gln Trp Pro Ala Val Asn Arg
```

130 135 140
Lys Arg Ser Leu
145

<210> 30789
<211> 113
<212> PRT
<213> A.fumigatus

<400> 30789
Gln Ser Met Gln Asn Thr Asn His Arg Leu Ala Tyr Leu Thr Leu Asn
1 5 10 15
Ser Thr Gly Phe Ile Val Thr Leu Gly Gly Gly His Thr Thr Ser Tyr
20 25 30
Thr Asn Pro Ala Ile Pro Gly Leu Asn Thr Ser Pro Leu Gly Gln Val
35 40 45
Phe Phe Ser Leu Leu Leu Ser Asp Leu Asn Leu Leu Leu Phe Thr Thr
50 55 60
Thr Thr Lys Leu Val Arg Pro Glu Leu Val Pro Gly Leu Glu Leu Gly
65 70 75 80
Ala Thr Met Leu Gly Asp Val Ala Phe Gly His Gly Cys Leu Gly His
85 90 95
Lys Arg Gly Glu Asn Lys Ala His Gln Arg Lys Trp Gly Ala Asn Leu
100 105 110
Arg

<210> 30790
<211> 101
<212> PRT
<213> A.fumigatus

<400> 30790
Lys Ser Lys Phe Asn Glu Met Val Asn Lys Ser Ala Ala Arg His Val
1 5 10 15
Ser Ile Thr Thr Ala Leu Ser Ser Ser Gly Leu Val Ser Val Ile Gly
20 25 30
Val Val Val Asp Val Phe Gly Thr Pro Phe Gln Ser Ser Arg Ser Trp
35 40 45
Cys Ile Thr Phe Thr Leu Lys Asp Thr Asp Phe Gly Asn Gly His Val
50 55 60
Trp Asp Gly Leu Lys Ile Lys Tyr Phe Lys Ala Asn Gln Ser Gln Leu
65 70 75 80
Pro Pro Val Arg Val His Asp Val Ile Leu Leu Arg Asn Ile Thr Val
85 90 95
Ser Asp Leu Ala Leu
100

<210> 30791
<211> 85
<212> PRT
<213> A.fumigatus

<400> 30791
Leu Asn Val Glu Leu Pro Glu Met Val Lys Gly Val Phe Ser Asp Gln
1 5 10 15

```
Ile Glu Ser Gln Ile Gln Ala Thr Thr Lys Phe Arg Lys Leu Leu Ser
            20                  25                  30
Lys Glu Arg Asn Pro Pro Ile Glu Arg Val Ile Glu Thr Gly Val Val
        35                  40                  45
Ser Arg Phe Val Glu Phe Leu Arg Ser Pro His Thr Leu Val Gln Phe
    50                  55                  60
Glu Ala Ala Trp Ala Leu Thr Asn Val Phe Thr Ser Gly Val Pro Asp
65                  70                  75                  80
Arg Ala Ser Leu Gln
                85
```

<210> 30792
<211> 182
<212> PRT
<213> A.fumigatus

<400> 30792

```
Arg Leu Phe Cys Gln Glu Leu Ile Ser Lys Arg Leu Phe Ser Phe Pro
1               5                   10                  15
Pro Phe Ser Glu Ile Phe Pro Ser Ser Gln Ile Arg Ser Pro Leu Ser
            20                  25                  30
Leu Val Arg Phe Val Phe Thr Pro Leu Val Ser Gln Ala Thr Met Ala
        35                  40                  45
Glu Arg Tyr Ile Pro Glu His Arg Arg Thr Gln Phe Lys Ala Arg Asn
    50                  55                  60
Gln Phe Arg Pro Asp Glu Leu Arg Arg Arg Arg Glu Glu Gln Gln Val
65                  70                  75                  80
Glu Ile Arg Lys Gln Lys Arg Glu Glu Asn Leu Ala Lys Arg Arg Gly
                85                  90                  95
Ile Gln Thr Arg Asp Gly Gly Ile Gly Val Gly Gly Gly Met Ala Ala
            100                 105                 110
Thr Glu Ser Asp Asp Glu Ala Ser Ala Ile Glu Ser Glu Val Cys Gln
        115                 120                 125
Pro Met Ile Cys Val Leu His Ala Leu Leu Ser Val Ser Ser Phe Leu
    130                 135                 140
Arg Pro Gln Thr His Pro Trp Ser Leu Phe Val Phe Val His Tyr Thr
145                 150                 155                 160
Leu His Asn Ser Leu Phe His Arg Pro Pro Pro Val Ala Gly Leu Ser
                165                 170                 175
Gly Ile Arg Arg Leu Ser
            180
```

<210> 30793
<211> 95
<212> PRT
<213> A.fumigatus

<400> 30793

```
Asn Ala Gln Arg Trp Ile Phe Arg Pro Ala Trp Ser Lys Thr Thr Phe
1               5                   10                  15
Thr Gly Asp Gly Ser Ala Lys Asp Pro Asp Phe Gln Gly Ser Lys Phe
            20                  25                  30
Lys Val Ser Pro His Val Asp Gln Thr Ala Val Tyr Gln Ala Val Phe
        35                  40                  45
Gly Arg Leu Asn Ala Gly Gly Cys Val Gly Ile Phe Pro Glu Gly Gly
    50                  55                  60
```

```
Ser His Asp Arg Pro Asn Leu Leu Pro Leu Lys Gly Ile Val Leu Ser
65                  70                  75                  80
Phe Asp Leu Pro His Tyr Leu Arg Lys Pro Arg Leu Ile Glu Leu
                85                  90                  95

<210> 30794
<211> 397
<212> PRT
<213> A.fumigatus

<400> 30794
Val Ile Gln Ala Ala Arg Arg Leu Tyr Asn Thr Lys Gly Lys Asn Leu
1               5                  10                  15
Pro Leu Pro Met Val Val Glu Leu Asn Arg Arg Leu Val Lys Gly Tyr
            20                  25                  30
Thr His Tyr Lys Asp Asp Pro Arg Val Ile His Leu Arg Lys Ala Val
        35                  40                  45
Ala Asp Tyr Asn Lys Gln Leu Arg Leu Leu Gly Ile Arg Asp His Gln
    50                  55                  60
Val Glu Tyr Ala Lys Phe Ser Trp Ile Gln Val Ile Ala Thr Leu Ile
65                  70                  75                  80
Tyr Arg Leu Gly Lys Leu Ala Leu Leu Thr Ile Gly Thr Leu Pro Gly
                85                  90                  95
Leu Ile Leu Phe Ala Pro Val Phe Ile Ala Thr Lys Tyr Ile Ser Lys
            100                 105                 110
Lys Lys Ser Gln Glu Ala Leu Ala Ala Ser Thr Val Lys Leu Gln Gly
        115                 120                 125
Arg Asp Val Met Ala Thr Trp Lys Leu Leu Val Ala Leu Ala Phe Ala
    130                 135                 140
Pro Ala Val Tyr Ala Phe Tyr Thr Ala Thr Phe Thr Trp Trp Ala Tyr
145                 150                 155                 160
Tyr Asn Arg Ile Gln Gly Leu Val Pro Val Trp Met Pro Leu Trp Leu
                165                 170                 175
Ile Val Pro Ile Gly Met Ile Leu Phe Pro Thr Ile Thr Phe Ala Ala
            180                 185                 190
Leu Arg Ile Gly Glu Val Gly Met Asp Ile Val Lys Ser Leu Arg Pro
        195                 200                 205
Leu Val Leu Ser Leu Asn Pro Ser Ser Ala Asn Thr Leu Val Lys Leu
    210                 215                 220
Arg Glu Arg Arg Ala Ala Leu Ala Gln Gln Val Thr Glu Val Ile Asn
225                 230                 235                 240
Thr Leu Gly Pro Glu Leu Phe Pro Asp Phe Asp Ala Ala Arg Ile Val
                245                 250                 255
Thr Asp Pro Phe Arg Glu Asp His Arg Pro Ala Gly Lys Thr Gly Val
            260                 265                 270
Asp His Ser Ala Val Pro Glu Ile Arg Arg Thr Ser Ala Thr Asp Thr
        275                 280                 285
Glu Val Glu Ser Pro Thr Arg Glu Pro Leu Pro Arg Asn Glu Ser Phe
    290                 295                 300
His Asn Leu Ala Asn Ile Gly Phe Phe Ser Thr Arg Pro Ser Ser Arg
305                 310                 315                 320
Ser Arg Ser Arg Ser Gly Ser Phe Gly Gly Arg Pro Gly Ser Ser Gly
                325                 330                 335
Gln Gln Leu Lys Pro Leu Ser Gln Val Thr Thr Lys Asp Gly Phe Glu
            340                 345                 350
Glu Val Ser Ser Lys Ile Arg Asp Ala Met Arg Glu Arg Gly Glu Arg
```

```
        355                 360                 365
Arg Arg Arg Arg Ser Glu Asp Gly Ser Trp Asp Met Ala Ser Ser Gly
    370                 375                 380
Pro Gly Thr Pro Ser Ser Glu Gly Ser Arg Lys Asp Leu
385                 390                 395

<210> 30795
<211> 119
<212> PRT
<213> A.fumigatus

<400> 30795
Thr Leu Ala Gly Val Ala Leu Met Ala Leu Gly Thr Leu Ala Asp Asn
1               5                   10                  15
Pro Asp Cys Gly Leu Lys Ile Val Pro Cys Gly Met Asn Tyr Phe His
            20                  25                  30
Ala His Lys Phe Arg Ser Arg Ala Val Ile Glu Phe Gly Asn Pro Ile
        35                  40                  45
Glu Val Pro Arg Glu Val Val Asp Gln Phe Lys Arg Gly Glu Lys Arg
    50                  55                  60
Glu Ala Val Gly Ala Leu Leu Asp Thr Ile Tyr Gln Gly Leu Val Ser
65                  70                  75                  80
Val Thr Val Thr Ser Pro Asp Tyr Glu Thr Leu Met Val Gly Glu Pro
                85                  90                  95
Ala Phe Phe Gly Pro Trp Tyr Leu Trp Thr Asp Val Phe Leu Gly Asp
            100                 105                 110
Ser Ser Arg Ser Ser Pro Ile
        115

<210> 30796
<211> 179
<212> PRT
<213> A.fumigatus

<400> 30796
Ser Ala Phe Pro Ser Ser Pro Val Val Lys Thr Val Tyr Pro Glu Asn
1               5                   10                  15
Ser Gln Tyr Pro Leu Gln Gly Glu Ser Ala Ser Ala Lys Pro Gly Asp
            20                  25                  30
His Ile Thr Met His Cys Lys Gln Gln Arg His Ile Ser Ser Arg Pro
        35                  40                  45
Trp Thr Cys Arg Ser Asn His Pro Ser Asp Lys Tyr Asp Asp Ser Ser
    50                  55                  60
Arg Asn Tyr Thr Gln Thr Leu Ser Val Asn Gly Gln Val Val Ser Thr
65                  70                  75                  80
Leu Ser Thr Ser Asp Gly Tyr Ala Gln Gly Trp Gly Ser Ala Val Glu
                85                  90                  95
Cys Ala Ala Thr Asp Cys Gly Thr Val Gly Ala His Cys Lys Leu Thr
            100                 105                 110
Arg Gln Leu Ala Val Gln Asn His Gly Leu Thr Cys Thr Val Leu Leu
        115                 120                 125
Ala Trp Ile Asp Thr Lys Ile Ile Leu Asp Ser Pro Asp Pro Asn Tyr
    130                 135                 140
Lys Asn Thr Asn Tyr Lys Gly Gln Gly Val Thr Gly Glu Met Ser Thr
145                 150                 155                 160
Ser Asp Gly Gly Lys Thr Trp Thr Val Ser Thr Ile Asn Ile Pro Gln
```

165 170 175
Phe Thr Phe

<210> 30797
<211> 66
<212> PRT
<213> A.fumigatus

<400> 30797
Arg Glu Thr Ala Thr Ser Gln Ser Ile Arg Gly Ile Leu Arg Arg Leu
1 5 10 15
Ser Asp Gly Gln Glu Gly Ile Gly Ala Leu Leu Phe Gln Gly Gln Val
20 25 30
Lys Asp Tyr Glu Ala Phe Leu Asn Ala Thr Ser Ser Tyr Asp Ile Val
35 40 45
Ile His Gly Ala Ala Lys Ile Arg Gly Arg His Arg Tyr Arg Tyr Gln
50 55 60
His Thr
65

<210> 30798
<211> 64
<212> PRT
<213> A.fumigatus

<400> 30798
Leu Arg Phe Leu Met Asn Ser Ile Gly Tyr His Ser Val Phe Tyr Leu
1 5 10 15
Ala Ser Gln Leu Ser Gly Phe Cys Ser Gly Asp His Phe Leu Arg Glu
20 25 30
His Ile Leu Leu Arg Ile Lys Lys Tyr Ser Lys Gly Gly Leu Asp Val
35 40 45
Arg Tyr Thr Asp Lys Cys Ser Lys Ser Ser Leu Leu Met Leu Glu Tyr
50 55 60

<210> 30799
<211> 265
<212> PRT
<213> A.fumigatus

<400> 30799
Ser Phe Ile Asp Tyr Ser Ser Ile Cys Cys Phe Val Gly Thr Asn Arg
1 5 10 15
Gly Asn Leu Ala Thr Phe Lys Ile Leu Pro Gly Asp Asp Gly Ala Tyr
20 25 30
Met Gly Gln Phe Ala Gly Val Thr Gln Leu Asp Asp Lys Val Leu Asn
35 40 45
Ile Ile Pro Ile Asp Ala Asp Gln Gly Thr Pro Ala Leu Ala Thr Ala
50 55 60
Ser Ile Val Ala Gly Leu Arg Thr Gly Ala Lys Leu Asn Gly Val Val
65 70 75 80
Ile Ala Val Thr Val Ser Gly Cys Arg Ile Phe Lys Pro Ala Thr Ser
85 90 95
Lys Gly Ala His Lys Ser Trp Asp Asp Tyr Leu Cys Asp Ala Ala Ala
100 105 110

```
Val Val Lys Thr Glu Gly Arg Gly Tyr Ser Leu Val Gly Leu Phe Gly
        115                 120                 125
Asp Gly Asn Ala Arg Ala Phe Ser Ile Pro Gly Leu Lys Glu Ile Gly
    130                 135                 140
Cys Thr Ser Ile His Gln Ile Ala Asp Met Arg Arg Leu Ser Asp Ser
145                 150                 155                 160
Thr Val Cys Pro Asp Gly Ser Val Leu Thr Trp Thr Gly Pro Ser Glu
                165                 170                 175
Val Ala Val Phe Ser Val Trp Gly Ser Gly Thr Gly Leu Tyr Gly Pro
            180                 185                 190
Leu Ser Leu Asp Pro Val Phe Val Gln Arg Lys Glu Arg Pro Ala Asn
        195                 200                 205
Lys His Asp Arg Arg Ser Ser Asp Cys Arg Leu Phe Asn Pro Gln Ala
    210                 215                 220
Ala Ile Pro Ala Arg Pro Thr Ile Thr Asn Leu Gln Trp Ile Ser Gly
225                 230                 235                 240
Thr Gln Tyr Val Ser Pro Ala Asp Met Asp Leu Leu Ser Met Cys Ile
                245                 250                 255
Arg Cys Ser Cys Asp Asn Lys Ser Arg
            260                 265
```

<210> 30800
<211> 99
<212> PRT
<213> A.fumigatus

<400> 30800

```
Ile Cys Asn Arg Gly Pro Gly Thr Ala Val Lys His Ser His Val Gly
1               5                   10                  15
Phe Val Ala Ala Gly Phe Gln Asn Gly Ser Phe Val Ile Met Asp Leu
            20                  25                  30
Arg Gly Pro Ala Val Ile His Thr Ala Gln Val Ser Asp Phe Ala Lys
        35                  40                  45
Thr Ser Lys Arg Gly Ser Phe Leu Lys His Arg Ala Thr Glu Ser Thr
    50                  55                  60
Ala Pro Glu Trp Pro Thr Ser Ile Glu Phe Gly Val Leu Thr Leu Glu
65                  70                  75                  80
Gly Glu Gly Lys Ile Tyr Pro Leu Glu Leu Trp Val Gln Ala Asp Thr
                85                  90                  95
Asp Arg Leu
```

<210> 30801
<211> 276
<212> PRT
<213> A.fumigatus

<400> 30801

```
Ser Met Ser Cys Gly Gly Val Val Lys Thr Glu Ser Asp Gly Leu Tyr
1               5                   10                  15
Lys Arg Asn Ile Lys Ala Leu Ile Leu Gln Thr Tyr Arg His Glu Gln
            20                  25                  30
Asp Gly Gln Gly Gln Ala Ala Ser Glu Lys Ser His Ala Glu Ala Glu
        35                  40                  45
Phe Gly Phe Asp Gly Arg Val Glu Leu Leu Ile Thr Arg Thr Arg Ser
    50                  55                  60
```

```
Arg Lys Ile Thr Phe Ile Glu Pro Val Ala Arg Leu Gly Phe Gly Leu
65                  70                  75                  80
Ala Val Arg Ser Ala Leu Arg Val Val Glu Thr Pro Tyr Val Trp Val
                85                  90                  95
Gln Gln His Asp Trp Ala Leu Glu Ala Asp Ile Pro Leu Glu Pro Leu
            100                 105                 110
Leu Glu Ile Met Gln Gly Ser Glu Ala Asp Asp Ala Val Pro Val Lys
        115                 120                 125
Tyr Val Ser Phe Pro Ser Val Arg Met Lys Arg Tyr Ala Val Ser Pro
    130                 135                 140
His Val Thr Asp His Ala Ala Leu Arg Glu Leu Thr Thr Ser Leu Lys
145                 150                 155                 160
Arg Asp Phe Val Val Arg Ser Pro Ser Arg Pro Glu Arg Lys Ile Ala
                165                 170                 175
Leu Thr Pro Leu Phe Phe Trp Phe Asp Lys Pro His Val Ala Ser Thr
            180                 185                 190
Ala His Tyr Leu Ala Arg Val Phe Pro Thr Pro Leu Ala Met Arg Arg
        195                 200                 205
Gly Glu Phe Ile Glu Asp Lys Ile Gly Gln Arg Ala Arg Ala Gln Met
    210                 215                 220
Lys Glu Gly Gln Trp Ala Lys Trp Ala Thr Trp Leu Tyr Tyr Pro Asp
225                 230                 235                 240
Glu Gly Asp Leu Leu Cys Leu Arg His Leu Met Gly Arg Thr Trp Arg
                245                 250                 255
Gly Phe Gly Gly Pro Ile Asn Val Lys Asp Gly Phe His Ile Ala Thr
            260                 265                 270
Asp Asp Glu Ser
        275
```

<210> 30802
<211> 89
<212> PRT
<213> A.fumigatus

<400> 30802

```
Ile Cys Arg Gly Tyr Ser Ala His Glu His Thr Val Leu Tyr Ser Asn
1               5                   10                  15
Val Arg Leu Ser Ser Ala Ser Thr Ala Leu Pro His Asp Ile Val Ile
            20                  25                  30
Glu Ala Leu Val Ser Leu Val Ile Val Ser Ala Gly Leu Val Leu Gly
        35                  40                  45
Ala Glu Lys Leu Lys Pro Ile Ser Trp Ser Glu Trp Ala Gly Glu Ile
    50                  55                  60
Glu Arg Glu Gly Gly Ala Arg Asn Pro Tyr Leu Arg Leu Glu Glu Arg
65                  70                  75                  80
Tyr Ser Phe Trp Asp Ile Arg Val Ser
                85
```

<210> 30803
<211> 66
<212> PRT
<213> A.fumigatus

<400> 30803

```
Thr Tyr Thr Ser Trp Leu Ala Arg Val Tyr Ala Val Gly Glu Leu Phe
1               5                   10                  15
```

```
Ala Tyr Gly Ala Ile Asn Asp Ser Arg Arg Thr Thr Asn Leu Ala Gly
            20                  25                  30
Lys Ser Glu Lys Trp Thr Val Arg Val Ser His Glu Ser Asp Leu Asp
        35                  40                  45
Asn Leu Cys Ser Ala Gln Pro Cys Ala Ser Gly Lys Pro Pro Ala Lys
    50                  55                  60
Gly Thr
65
```

<210> 30804
<211> 184
<212> PRT
<213> A.fumigatus

<400> 30804

```
Asn Leu Ala Cys Cys His Ser Arg Pro Ser Val Leu Gln Leu Pro Pro
1               5                   10                  15
Ser Val Ile Thr Pro Glu Pro Arg Ser Thr Ile Asn Thr His Leu Leu
            20                  25                  30
Gly Val Ile Ile Tyr Phe Arg Asp Ala Met Asn Ser Arg Glu His Ser
        35                  40                  45
Asp Met Pro Pro Ala Thr Ser Tyr Pro Ser Pro Asn Ala Ala Gln Met
    50                  55                  60
Ala Gln Gly Ser Met Pro Tyr Tyr Gly Asn Arg Gln Leu Thr Ala Asp
65                  70                  75                  80
Glu Leu Leu Ser Ala Glu Leu Ser Arg Glu Thr Ser Gly Pro Gly Leu
                85                  90                  95
Asn Asp Gly Ser Ser Asn Gly Val His His Gly Gln Ser Met Val Met
            100                 105                 110
Gly Ser Ser Asn Pro Gly Ala Thr Asp Met Gly Arg Pro Ser Ser Pro
        115                 120                 125
Asp Gln His Gln Gln His Met Leu Gln Phe Thr Pro Gly Gln Gln Val
    130                 135                 140
Gly Val Asp Pro Asn His Asp Leu Ser Tyr Gly Asp Gln Ser Ala Arg
145                 150                 155                 160
Arg Lys Arg Ser Lys Ile Ser Arg Ala Cys Asp Glu Cys Arg Arg Lys
                165                 170                 175
Lys Val Gly Val Leu Tyr Leu Ile
            180
```

<210> 30805
<211> 141
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (52)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30805

```
His Gln Leu Phe Leu Ala Tyr Ser Ser Phe Leu Val Glu Met Val Thr
1               5                   10                  15
Leu Ala Ala Met Glu His Asn Val Cys Gln Ser Asn Thr Gly Leu Gly
            20                  25                  30
Arg Met Ile Gly Ala Asn Leu Val Ala Ser Leu Glu Arg Leu Gly Gln
```

```
        35                  40                  45
Ile Glu Asp Xaa Arg Lys Pro Tyr Asp Ala Ala Arg Glu Thr Pro Ser
    50                  55                  60
His Gly Phe Phe Glu Ser Pro Ala Asn Gln Leu Tyr Trp Asp Cys Pro
65                  70                  75                  80
Leu Leu Ile Lys Arg His Ile Phe Val Tyr Ser Pro Tyr Glu Asp Asn
                85                  90                  95
Tyr Trp Pro Gly Glu Val Asn Asn Glu Leu Leu Lys Ala Thr Met Glu
            100                 105                 110
Ser Arg Pro Ala Thr Pro Phe Asp Leu His Ser Leu Thr Val Ala Phe
        115                 120                 125
Met Thr Leu Val Lys Ala Thr Cys Leu Thr Gly His Asn
    130                 135                 140

<210> 30806
<211> 208
<212> PRT
<213> A.fumigatus

<400> 30806
Leu Thr Ile Gly Ser Tyr Tyr Ala Lys Ile His Thr Ile Phe Pro Ile
1               5                   10                  15
Leu Pro His Ser Lys Asp Arg Leu Leu Glu Ile Leu His Gln Cys Ser
            20                  25                  30
Arg Glu Val Gln Glu Val Phe Leu Tyr Ala Leu Tyr Thr Val Thr Arg
        35                  40                  45
Thr Asn Leu Asp Arg Val Leu Ser Thr Phe Glu Arg Val Thr Ser Phe
    50                  55                  60
Asp Asn Ala Gln Asp Leu Leu Leu Tyr Tyr Thr Arg Gln Pro Ala Leu
65                  70                  75                  80
Val Arg Pro Thr Ala Val Asn Leu Val Trp Leu Gln Ala Thr Leu Leu
                85                  90                  95
Met Ile Leu Asp Cys Asp Ser Arg Gly Pro Glu Asn Ile Val Leu Lys
            100                 105                 110
Asp Gly Val Pro Lys His Ser Leu Ile Gln Ser Ala Thr Lys Leu Gly
        115                 120                 125
Ser Asp Met Ala Lys Ser Leu Asp Gln Leu Lys Ala Lys Arg Ser Ser
    130                 135                 140
Asp Ala Asp Val Asp Ser Asp Ala Asn Leu Val Arg Arg Ser Trp Val
145                 150                 155                 160
Ser Leu Ala Ile Leu Ala Arg Trp Tyr Ala Ile Ser Val Ala Asp Leu
                165                 170                 175
Ser Val Leu Val Asn Gln Glu Ile Gly Gly Arg Glu Asp Glu Arg Val
            180                 185                 190
Leu Gly Ser Val Thr Ala Gly Ile Gly Gly Thr Ser Tyr His Ile Ile
        195                 200                 205

<210> 30807
<211> 195
<212> PRT
<213> A.fumigatus

<400> 30807
Gln Arg Val Arg Ser Ala Ala Pro Ser Ala Thr Arg His Val Gly Thr
1               5                   10                  15
Lys Leu Leu Thr Trp Val Ile Ser Tyr Ile Lys Glu Leu Ala Glu Arg
```

```
            20                  25                  30
Leu His Thr Leu Glu Ser Gln Met Gln Pro Ala Met Val His Pro Asp
        35                  40                  45
Met Gln Tyr Gln Ala Met Asn Glu Val Ser Pro Pro Arg Pro Tyr Gln
    50                  55                  60
Glu Phe Ser Pro Pro Met Asp Ala Gly Ser Ile Gly Arg Lys Lys Thr
65                  70                  75                  80
Tyr Ser Val Phe Glu Gly Leu Pro Ala Gly Leu Pro Asn Thr Ser Tyr
                85                  90                  95
Ser Gln Pro Gln Phe Asn Pro Arg Ser Ser Gln Asn Ala Phe Gly Leu
            100                 105                 110
Ser Ala Leu Pro Ala Gln Gly Asp Val Thr Lys Leu Thr Leu Ile Asp
        115                 120                 125
Ala Gly Glu Thr Ser Thr Asp Pro Met Asn Ser Ser Val Met Gly Asn
    130                 135                 140
Thr Ala Pro Lys Pro Gly Asn Leu Phe Trp Ser Thr Asn Glu His Glu
145                 150                 155                 160
Ile Pro His Gly Leu Asp Ile Pro Asp Val Ser Lys His Gly Ile Glu
                165                 170                 175
Glu Asp Met Thr Pro Leu Asp Val Asp Gly Gly Ala Leu Asn Ala Tyr
            180                 185                 190
Val Tyr Ser
        195
```

<210> 30808
<211> 128
<212> PRT
<213> A.fumigatus

<400> 30808

```
Cys Ile Leu Thr Ser Phe Ser Thr Ile His Ala Phe Leu Asp Asn Phe
1               5                   10                  15
Ser Leu Phe Phe Leu Pro Pro Phe Thr Tyr Thr Ile Lys Met Lys Gln
            20                  25                  30
Phe Phe Phe Gly Ser Asp Ser Lys Ser Arg Lys Pro Arg Pro Val Glu
        35                  40                  45
Asp Lys Trp Ile Val Glu Glu Arg Ser Ile Asp Lys Ala Arg Pro Leu
    50                  55                  60
Arg Val Val Ile Ile Gly Ser Gly Ile Ser Gly Ile Ile Ala Ser Ile
65                  70                  75                  80
Arg Phe Arg Gln Arg Ile Pro Asn Val Asp Leu Cys Val Tyr Glu Lys
                85                  90                  95
Asn Glu Asp Ile Gly Gly Thr Trp Leu Glu Asn Arg Tyr Pro Gly Cys
            100                 105                 110
Ala Cys Gly Lys Ala His His Phe Val Ala Arg Val Val Trp Arg Gln
        115                 120                 125
```

<210> 30809
<211> 81
<212> PRT
<213> A.fumigatus

<400> 30809

```
Arg Pro Thr Phe Thr Met Phe Ala Asp Ile Pro Ala His Thr Tyr Gln
1               5                   10                  15
Ala Thr Phe Glu Pro Asn Lys Glu Trp Ser Thr Phe Tyr Ala Ala Ala
```

```
            20                  25                  30
Pro Glu Ile His Ala Tyr Trp Lys Arg Val Ala Glu Lys Tyr Gly Cys
        35                  40                  45
Met Lys Tyr Ile Lys Leu Lys Gln Ala Val Val Glu Ala Val Trp Asp
    50                  55                  60
Asp Ser Lys Ser Lys Trp Gln Leu Lys Val Gly Thr Pro Ser Pro Val
65                  70                  75                  80
Cys
```

<210> 30810
<211> 69
<212> PRT
<213> A.fumigatus

<400> 30810

```
Gly Lys Arg Ala Ala Val Ile Gly Asn Gly Ser Ser Gly Ile Gln Ile
1               5                   10                  15
Val Pro Gly Met Leu Pro Lys Val Ala His Ile Asp His Tyr Ile Arg
            20                  25                  30
Gly Arg Thr Trp Leu Ser Pro Thr Phe Ala Arg Gln His Val Asp Lys
        35                  40                  45
Arg Gly Gly Ala Glu Leu Glu Asn Cys Leu Ser Thr His Pro Val Met
    50                  55                  60
Gln Leu Lys Glu Tyr
65
```

<210> 30811
<211> 251
<212> PRT
<213> A.fumigatus

<400> 30811

```
Val Leu Leu Val Glu Asp Ala Val Ser Ile Gly Ser Asn Ala Arg Ala
1               5                   10                  15
Glu Ile Glu Leu Glu Leu Gln Ser Val His Gly Val Thr Leu Leu Gly
            20                  25                  30
Thr Pro Glu Gln Ile Gly Ala Arg Glu Val Phe Leu Gln Asn Met Lys
        35                  40                  45
Arg Arg Leu Ser Arg Lys Pro Glu Met Cys Glu Asp Leu Ile Pro Ser
    50                  55                  60
Phe Pro Pro Val Cys Arg Arg Leu Thr Pro Gly Pro Gly Tyr Leu Glu
65                  70                  75                  80
Ala Leu Thr Asp Asp Lys Val Asp Val Ile Thr Ser Lys Ile Ile Arg
                85                  90                  95
Val Asp Ala Glu Gly Ile Ile Thr Ala Asp Gly Gln His His Pro Thr
            100                 105                 110
Asp Val Leu Val Cys Ala Thr Gly Phe Asp Thr Thr Phe Asn Pro Arg
        115                 120                 125
Phe Pro Val Ile Gly Arg Asn Gly Val Thr Leu Ala Asn Arg Trp Gln
    130                 135                 140
Lys Thr Pro Glu Thr Tyr Leu Ser Leu Ala Val Asp Gly Phe Pro Asn
145                 150                 155                 160
Tyr Phe Ile Cys Leu Gly Pro Asn Ala Ala Leu Gly Glu Gly Asn Leu
                165                 170                 175
Leu Leu Leu Ile Glu Lys Glu Ile Asp Tyr Phe Thr Leu Cys Val Gln
```

```
            180                 185                 190
Lys Met Gln Arg Asp Asn Ile Arg Ala Met Ser Val Lys Lys Glu Ala
        195                 200                 205
Val Glu Met Phe Thr Arg Tyr Cys Asp Gln Tyr Phe Ser Arg Thr Val
    210                 215                 220
Phe Ser Glu Lys Cys Arg Ser Trp Tyr Lys Gly Gly Thr Glu Asp Gly
225                 230                 235                 240
Arg Val Ile Ala Leu Trp Pro Gly Thr Leu Ser
                245                 250
```

<210> 30812
<211> 69
<212> PRT
<213> A.fumigatus

<400> 30812

```
Pro Ala Ile Gly Ser Ser Leu His Ser Met Lys Ala Leu Ala His Pro
1               5                   10                  15
Arg Trp Glu Asp Tyr Thr Tyr Asp Tyr Val Asn Asp Asn Pro Asn Gly
            20                  25                  30
Trp Leu Gly Asp Gly Trp Thr Glu Asn Glu Lys Leu Lys Lys Ile Asn
        35                  40                  45
Val Asp Tyr Leu Asn Asp Asp Glu Ile Asp Phe Pro Thr Asn Val Ile
    50                  55                  60
Ala Val Leu Asp Gln
65
```

<210> 30813
<211> 84
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (44),(52)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30813

```
Met Leu Ser Arg Gln Pro Gln Glu Ser Phe Tyr His Leu Ser Lys Arg
1               5                   10                  15
Ala Thr Val Phe Leu Ser Ser Ala Trp Ala Ala Leu Val Pro Val Asp
            20                  25                  30
Val Ser Asp Ser Glu Asp Val Pro Tyr Pro Leu Xaa Thr Ser Pro Gly
        35                  40                  45
Leu Leu Pro Xaa Leu Glu Leu Trp Phe Pro Leu Val Pro Ser Cys Leu
    50                  55                  60
Ala Ser Ser Gln Arg Lys Ile Leu Pro Pro Pro Val Gly Met Pro Trp
65                  70                  75                  80
Ser Ser Ser Phe
```

<210> 30814
<211> 143
<212> PRT
<213> A.fumigatus

<400> 30814
Ser Ser Ser Asn Ile Leu Gly Met Lys Ala Arg Asp Asp Ala Asn Gly
1 5 10 15
Thr Cys Thr Gly Pro Arg Met Arg Leu Tyr Val Thr Met Ser Phe Ala
20 25 30
Glu Thr Glu Ser Tyr Gln Leu Thr Cys Asn Gln Gln Leu Leu Tyr Met
35 40 45
Asn Tyr Thr Gly Val Val Thr Met Gly Pro Ala Glu Gln Ala Val Phe
50 55 60
Ser Gly Asn Ala Glu Asp Gly Ala Thr Pro Phe Gly Asn Ser Phe Thr
65 70 75 80
His Phe Thr Phe Glu Val Arg Ser His Pro Ala Tyr Tyr Leu Thr Phe
85 90 95
Gln Asn Leu Thr Gly Leu Gln Thr Gly Asp Glu Arg Tyr Lys Glu Phe
100 105 110
Glu Asn Arg Val Phe Val Gly Gln Gly Arg Phe Arg Val Glu Lys Gly
115 120 125
Lys Pro Val Val Val Glu Tyr Lys Val Ser Gln Val Val Lys Gly
130 135 140

<210> 30815
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30815
Pro Lys Pro Met Thr Gly Gly Thr Val Lys Ser Asp Pro Gly Tyr Pro
1 5 10 15
Leu Ala Leu Asp Ala Glu Phe Val Gly Thr Gly Asn Asp Tyr Ile His
20 25 30
Ala Asp Pro Asp Asn Lys His Leu Arg Leu Asn Ala His Gly Val Ile
35 40 45
Lys Leu Val Phe Phe Glu Tyr Ser Gly Asn Glu Ser Thr Arg
50 55 60

<210> 30816
<211> 66
<212> PRT
<213> A.fumigatus

<400> 30816
Met Phe Lys Asn Lys Leu Gln Phe Gln Gly Thr Tyr Pro Glu Val Asn
1 5 10 15
Leu Lys Val Pro Ala Thr Thr Lys Leu Pro Val Ala Asp Leu Glu Ser
20 25 30
Asn Gly His Leu Ile Asn Pro Met Gln Cys Leu Met Gly Pro Phe Ser
35 40 45
Pro Met Cys Pro Glu Leu Asp Val Val Asn Arg Pro Arg Leu Gly Thr
50 55 60
Asn Gln
65

<210> 30817
<211> 85
<212> PRT
<213> A.fumigatus

<400> 30817
Leu His Val Pro Gly Arg Arg Arg Ile Phe Thr Ala Leu Thr Asp Ala
1 5 10 15
Ala Cys Ile Gln Glu Ser Ser Asn Gly Ser Thr Phe Glu Leu Gly Val
20 25 30
Phe Glu Tyr Ile Lys Cys Met Ala Lys Val Ala Leu Thr Leu Asp Asp
35 40 45
Leu Ala Asp Leu Ile Phe Asp Asn Asn Gly Leu Thr Leu Leu Asp Ser
50 55 60
Glu Ser Ala Leu Ala Asp Glu Tyr Ser Val Leu Glu Leu Leu Val Ala
65 70 75 80
Leu Ile Thr Gly Leu
85

<210> 30818
<211> 108
<212> PRT
<213> A.fumigatus

<400> 30818
Ile Gly Pro Arg Ser Pro Gly Gly Gly Arg Tyr Glu His Cys Ile Trp
1 5 10 15
Ala Leu Gly Thr Gly Trp Ala Val Ser Ala Asn Ser Phe Phe Ala Val
20 25 30
Arg Lys Leu Ser Glu Ala Leu Ala Gln Val Lys Asp Glu Gln Ser Tyr
35 40 45
Ile Val Val Arg Glu Arg Val His Arg Asn Thr Ala Glu Ser Thr Asn
50 55 60
Ala Arg Val Lys Trp Trp Ser Ile Phe Gln Leu Ala Val Leu Ile Gly
65 70 75 80
Glu Gly Ile Phe Gln Val Trp Trp Leu Lys Arg Phe Phe Glu Val Gly
85 90 95
Val Thr Ile Pro Asn Arg Pro Val Lys Ser Cys Asn
100 105

<210> 30819
<211> 107
<212> PRT
<213> A.fumigatus

<400> 30819
Leu Ser Ala Ala Leu Gln Val Glu Asp Pro Leu Lys Asn Arg Gln Tyr
1 5 10 15
Phe Arg Gln Ala Val Ser Ser Glu Asp Tyr Ser Phe Thr Ala His Ala
20 25 30
Asp Gly Lys Tyr Val Tyr Cys Phe Ser Asn Glu Gly Trp Thr Ser Asn
35 40 45
Ser Lys Glu Val Ser Phe Asn Val His Gly Ile Val Tyr Val Pro Glu
50 55 60
His Glu Leu Ala Gln Asp Pro Leu Glu Val Glu Gly Met Ser Ile Ala
65 70 75 80
Tyr Gly His Trp Val Arg Ala Gly Arg Cys Gln Leu Thr Ala Ser Leu
85 90 95
Gln Cys Val Asn Ser Pro Arg Leu Trp Leu Arg
100 105

<210> 30820
<211> 213
<212> PRT
<213> A.fumigatus

<400> 30820
Leu Ser Ser Gly Arg Thr Arg Thr Asp Leu Arg Leu Cys Ile Thr Asn
1 5 10 15
Thr Cys Arg Phe Val Val His Thr Leu Glu Lys Thr Asp Leu Pro Ala
20 25 30
Lys His Cys Pro Pro Ser Ser Pro Ile Arg Pro Thr Gly Val Tyr Phe
35 40 45
Thr Arg Pro Phe Ser Ser Val Ser Leu Ala Gln Ser Pro Ile Ser Asp
50 55 60
Leu Ser Thr Met Ala Asp Ser Ser Thr Pro Ser Gln Pro Ser Ala Pro
65 70 75 80
Pro Ser Ser Gln Pro Pro Pro Ser Ser Gln Ile Gly Ser Gln Glu Leu
85 90 95
Pro Ser Ser Ser Thr Gln Ala Thr Val Pro Gly Glu Leu Ser Gly Thr
100 105 110
Ser Glu Pro Pro Val Val Pro Lys Glu Glu Pro Asn Thr Thr Asp Val
115 120 125
Glu Ala Leu Asp Ala Ser Ile Glu Gln Asp Ile Asp Met Asn Pro Gly
130 135 140
Gly Ile Thr Asn Ala Ala Gly Ala Ser Asp Gly Asp Asn Thr Ile Gly
145 150 155 160
Asn Pro Val Gln Asp Ala Met Pro Thr Ser Val Asp Ala Ile Ala Ala
165 170 175
Ala Val Ala Pro Ser Lys Lys Glu Thr Ser Leu Arg Glu Phe Leu Gly
180 185 190
Lys Met Asp Asp Tyr Ala Pro Ile Val Gly Leu Thr Phe Val Ile Phe
195 200 205
Leu Leu Pro Tyr Phe
210

<210> 30821
<211> 73
<212> PRT
<213> A.fumigatus

<400> 30821
Ala Val Pro Ile Thr Leu Pro Cys His Asn Val Ala Arg Arg Lys Arg
1 5 10 15
Gln Met Ser Ile Gln Gln Gln Gln Asn Thr Ile Glu Arg Lys Pro His
20 25 30
Thr Pro Ile Arg Ile Thr Tyr Met Phe Leu Asp Trp Leu Tyr Val Asn
35 40 45
Arg Leu Arg Val Leu Pro Asn Ala Asn Gly Gln Leu Leu Arg Leu Leu
50 55 60
Leu Cys Asn Cys Trp Asp Ile Ser Gln
65 70

<210> 30822
<211> 157
<212> PRT

<213> A.fumigatus

<400> 30822
Ile Pro Asp Ala Val Thr Ala His Tyr Leu Thr Leu Ala Gly Leu Pro
1 5 10 15
Pro Pro Gly Asn Gly Pro Asn Gln Thr Pro Pro His Leu Ala Arg Leu
20 25 30
Leu Ala Leu Ala Thr Gln Lys Phe Ile Ala Asp Ile Ala Ala Asp Ser
35 40 45
Tyr Gln Tyr Ala Arg Ile Arg Ala Ser Asn Ser Thr Ser Ala Ser Asn
50 55 60
Pro Met Gly Ser Leu Asn Ala Ala Ser Gly Leu Asn Met Pro Gly Gly
65 70 75 80
Ala Gly Ser Gly Ala Ser Arg Arg Arg Ser Arg Arg Trp Trp Arg Arg
85 90 95
Arg Arg Gln Arg Gln Ser Glu His Thr Ser Gly His Ser Ala Ser Trp
100 105 110
Phe Trp Arg Trp Trp Leu Arg Trp Leu Trp Ala Arg Ser Asp Gly Ala
115 120 125
His His Gly Arg Leu Gly His Gly Cys Cys Arg Val Trp Ser Gln Arg
130 135 140
Gln Glu Arg Gly Val Leu Pro Val Glu Lys Ala Gly Ser
145 150 155

<210> 30823
<211> 76
<212> PRT
<213> A.fumigatus

<400> 30823
Ile Cys Pro Ala Val Leu Asp Pro Ala Pro Ala Gly Gly Ala Ala Gly
1 5 10 15
Val Gly Gly Gly Asp Ala Gly Lys Gly Lys Ala Asn Thr His Leu Gly
20 25 30
Ile Gln Arg Pro Gly Phe Gly Gly Gly Gly Ser Gly Gly Ser Gly Gln
35 40 45
Gly Arg Thr Val Leu Thr Met Glu Asp Leu Gly Met Ala Val Ala Glu
50 55 60
Tyr Gly Val Ser Val Lys Arg Gly Glu Phe Tyr Arg
65 70 75

<210> 30824
<211> 206
<212> PRT
<213> A.fumigatus

<400> 30824
Leu Arg His His Glu Pro Asn Asn Ile Lys Pro His Thr Pro Arg Thr
1 5 10 15
Leu Thr Ser His Ile Ser Phe Lys Thr Thr Val Ala Asn Leu Thr Met
20 25 30
Lys Val Phe Ser Ser Ile Leu Val Leu Leu Phe Ala Ile Phe His Leu
35 40 45
Cys Leu Ala Glu Asp His Pro Asp Arg Phe Pro Asp Gln Lys Gln Val
50 55 60
Asp Lys Asp Asn Tyr Glu Ala Val Thr Leu Ala Ala Ala Gln Lys Gly

```
65                  70                  75                  80
Val Gln Leu Glu His Gly Lys Arg Tyr Ala Phe Arg Glu Lys Trp Ala
                85                  90                  95
Pro Ala Tyr Gly Glu Tyr Met Cys Leu Pro Asp Tyr Ser His Val Arg
            100                 105                 110
Leu Ile Val Gly Gln Phe Phe Asn Ser Asn Thr Arg Ser Gly Arg Gln
        115                 120                 125
Ala Phe Ser Ala Lys Ala Phe Glu Met Ile Ser Asp Glu Ala Glu Thr
    130                 135                 140
Lys Leu Gly Gln Thr Pro Val Gly Gly Lys Val Glu Ser Gln Val Thr
145                 150                 155                 160
Glu Asn Trp Trp Ala Asn His Tyr Tyr Asn Tyr Lys Lys Lys Glu Trp
                165                 170                 175
Val Arg Val Ser Lys Asp Ser Lys Tyr Glu Phe Leu Gly Glu Thr Thr
            180                 185                 190
Ala Thr Asp Ala Tyr Ile Glu Asn Gln Gly Met Trp Phe Asp
        195                 200                 205
```

<210> 30825
<211> 362
<212> PRT
<213> A.fumigatus

```
<400> 30825
Ser Asp Gly Gln Ser Gln Leu Val Ile Cys Gly Leu Ala Val Pro Cys
1               5                   10                  15
Arg Arg Gly Ser Pro Tyr Val Val Lys Met Ser Asp Asn Ala Ser Ile
            20                  25                  30
Thr Pro Gln Thr Ile Pro Ala Ser Arg Ser Ile Phe Pro Lys Gly Pro
        35                  40                  45
Asn Phe Thr Leu Ser Asp Phe Ser Ser Arg Asp Tyr Ile Val Lys Glu
    50                  55                  60
Phe Val Glu Ala Leu Ser Asp Ser Thr Thr Ser Asn Arg Arg Ser Thr
65                  70                  75                  80
Val Gly Pro Gly Pro Gly Asn Gln Leu Phe Asp Pro Lys Pro Leu Ile
                85                  90                  95
Arg Ala Phe Glu His Ala Gln Gln Arg Leu Gly Glu Leu Ser Gly Asp
            100                 105                 110
Leu Glu Ile Lys Glu Asn Glu Leu Ser Ala Ala Ala Arg Arg Ala Glu
        115                 120                 125
Ala Gln His Ala Gln Asn Leu Gly Thr Leu Gly Arg Lys Leu Lys Gln
    130                 135                 140
Thr Ile Asp Ser Phe Gln Gln Leu Asp Thr Ser Leu Asn Gly Ala Ala
145                 150                 155                 160
Leu Ser Gly Gly Glu Leu Pro Gly Ala Thr Gly Ser Met Ala Val Glu
                165                 170                 175
Thr Gly Arg Arg Leu Glu Glu Leu Asp Arg Gln Arg Arg Arg Ala Leu
            180                 185                 190
Asp Ala His Phe Leu Ile Gln Cys Trp Asp Gly Val Ser Asn Arg Gly
        195                 200                 205
Glu Ile Thr Leu Leu Glu Asn Leu Arg Lys Ser Gly Thr Gly Glu Ala
    210                 215                 220
Lys Val Arg Ser Ala His Ile Ala Arg Gln Leu Leu Arg Ile Ser Gln
225                 230                 235                 240
Arg Leu Asp Pro Arg Ser Trp Asp Glu Leu Arg Ala Lys Lys Asn Asp
                245                 250                 255
```

```
Leu Tyr Arg Asn Asp Asp Asp Ser Val Asp Glu Gly Thr Arg Gly Asn
            260                 265                 270
Thr Asn Gly Ile His Arg Asn Thr Arg Glu Ile Ile Glu Lys Phe Ser
        275                 280                 285
Glu Thr Leu Glu Lys Asp Leu Leu Lys Gln Phe Asp Asp Phe Tyr Arg
    290                 295                 300
Lys Ala Asn Phe Glu Gly Met Arg Asp Cys Ala Thr Val Leu Gln Asp
305                 310                 315                 320
Phe Ser Gly Gly Ala Ser Val Thr Ala Leu Phe Val Asn Gln His Gln
                325                 330                 335
Phe Phe Ile Asp Arg Ser Gln Leu Val Thr Glu Glu Leu Gly Gly Asp
            340                 345                 350
Leu Asp Ser Trp Glu Gln Ile Gly Gly Ser
        355                 360
```

<210> 30826
<211> 267
<212> PRT
<213> A.fumigatus

<400> 30826

```
Arg Trp Ser Cys Arg Lys Asn Gln Pro Ser Ser Asn Glu His Ser Leu
1               5                   10                  15
Phe Met Ser Arg Cys Trp Ala Asn Ser Gln Gln Arg Val Phe Gln Gln
            20                  25                  30
Ser Ile Gln Gln Arg Leu Glu Met Val Leu Glu Lys Ala Asn Gly Ile
        35                  40                  45
Ser Ser Leu Ala Phe Leu Arg Ser Leu Gln Ser Ser Arg Ser Tyr Ile
    50                  55                  60
Ser Gly Leu Val Asp Asp Leu Lys Ala His Gly Leu Thr Glu His Pro
65                  70                  75                  80
Asp Pro Val Ser Ser Gln Thr Ala Leu Ile Leu Asp Gln Gln Leu Glu
                85                  90                  95
Asp Leu Phe Val Pro Tyr Phe Val Gly Ser Ser Tyr Ile Glu Arg Glu
            100                 105                 110
Lys Lys Ser Leu Glu Glu Leu Tyr Thr Ser Leu Leu Phe Arg Phe Thr
        115                 120                 125
Thr Phe His Ala Arg Arg Lys Arg Ala Ala Thr Thr Phe Met Ala Ser
    130                 135                 140
Ile Ser Lys Ser Gly Thr Glu Leu Leu Ser Ser Ala Arg Asp Ala Tyr
145                 150                 155                 160
Val Asn Arg Leu Glu Ser Ser Glu Phe Thr Pro Thr Gln Lys Lys Met
                165                 170                 175
Leu Leu Gln Leu Ala Gly Leu Lys Glu Gln Ser Asp Ser Met Lys Pro
            180                 185                 190
Thr Glu Ile Lys Leu Met Glu Lys Asp Gly Leu Pro Asn Ile Ser Tyr
        195                 200                 205
Ala Lys Arg Met Leu Lys Trp Leu Ala Glu Ala Val Gly Arg Gly Leu
    210                 215                 220
Glu Leu Gly Ser Thr Ser Glu Thr Pro Lys Asp Val Ser Ala Leu Leu
225                 230                 235                 240
Ser Leu Leu Leu Ser Leu Met Gly Glu Gly Tyr Val Glu Val Cys Leu
                245                 250                 255
Asp Ala Val Phe Glu Ala Ala Ile Ser Gln Gly
            260                 265
```

<210> 30827
<211> 471
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (252),(463),(465),(469)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30827
Ala Pro Pro Ala Lys Ile Leu Pro Leu Cys Met Gly Ile Ile Tyr Ile
1 5 10 15
Ile His Val Lys Leu Leu Cys Pro Arg Asn Asn Leu Ile Asp Leu Phe
20 25 30
Tyr Lys Thr Arg Gln Ser Thr Met Arg Thr Ser Arg Thr Ser Lys Glu
35 40 45
Thr Ala Ser Phe Leu Gln Ala Leu Ser Pro Pro Thr Arg Arg Gln Thr
50 55 60
Arg Ser Ser Ser Arg Thr Asn Val Leu Gln Arg Phe Ala Phe Asn Ala
65 70 75 80
Ser Ala Asn Gly Gln Ala Glu Thr Ala Pro Thr Thr Thr Gly Ala Gln
85 90 95
Phe Gln Gln Ser Asp Gly Asp Asp Thr Ser Ser Leu Ser Ser Val Asp
100 105 110
Thr Val Asp Ile Glu Asp Ile Leu Glu Pro Pro Leu Lys Lys Arg Lys
115 120 125
Ser Ser Pro Gly Ser Pro Ser Thr Lys Arg Thr Thr Arg Ala Pro Gly
130 135 140
Arg Thr Ile Thr Lys Arg Glu Ala Ile Lys Val Glu Pro Ala Lys Pro
145 150 155 160
Lys Ser Arg Arg Val Pro Ala Arg Lys Ile Lys Gly Glu Asn Gly Ser
165 170 175
Ile Lys Ile Glu Pro Pro Ser Asn Trp Glu Thr Ile Tyr Ser Met Val
180 185 190
Lys Lys Met Arg Glu Asn Asn Pro Thr Ala Pro Val Asp Thr Met Gly
195 200 205
Cys Ala Glu Leu Tyr Trp Arg Ser Ser Ser Pro Arg Asp Lys Arg Phe
210 215 220
Gln Thr Leu Met Ala Leu Met Leu Ser Ser Gln Thr Lys Asp Thr Val
225 230 235 240
Thr Ala Val Ala Met Gln Arg Leu His Thr Glu Xaa Gly Asn Gly Arg
245 250 255
Ala Leu Ala Glu Asp Pro Ile Val Lys Lys Glu Glu Gln Glu Asp Ile
260 265 270
Asp Leu Lys Ser Ser Gln Pro Leu Lys Asp Ser Thr Leu Asn Leu Glu
275 280 285
Asn Ile Leu Ala Val Ser Pro Glu Lys Leu Asn Glu Leu Ile Arg Thr
290 295 300
Val Gly Phe His Asn Asn Lys Thr Lys Tyr Ile Lys Ala Ala Ala Glu
305 310 315 320
Ile Leu Arg Asp Gln Tyr Asn Ser Asp Ile Pro Ser Thr Ala Glu Glu
325 330 335
Leu Met Lys Leu Pro Gly Val Gly Pro Lys Met Ala Tyr Leu Cys Met
340 345 350
Ser Ala Ala Trp Gly Lys Asp Glu Gly Ile Gly Val Asp Val His Val

```
        355                 360                 365
His Arg Ile Thr Asn Leu Trp Gly Trp His Lys Thr Lys Thr Pro Glu
    370                 375                 380
Glu Thr Arg Met Ala Leu Glu Ser Trp Leu Pro Arg Asp Lys Trp His
385                 390                 395                 400
Glu Ile Asn Lys Leu Leu Val Gly Leu Gly Gln Thr Val Cys Leu Pro
                405                 410                 415
Val Gly Arg Arg Cys Gly Glu Cys Asp Leu Ala Gly Thr Lys Leu Cys
            420                 425                 430
Lys Ser Glu Val Arg Gly Leu Leu Ser Lys Lys Asn Ala Gly Val Lys
        435                 440                 445
Pro Lys Asp Glu Val Leu Lys Asp Asp Gly Leu Ala Ser Gly Xaa Ala
    450                 455                 460
Xaa Val Lys Val Xaa Gly Arg
465                 470
```

<210> 30828
<211> 75
<212> PRT
<213> A.fumigatus

<400> 30828

```
Val Thr Gln Val Ser Arg Arg Ser Pro Ser Ala Asn Arg His Tyr Ser
1               5                   10                  15
Thr Leu Ala Leu His Ser His Ile Pro Ser Leu Arg His Asn Val Ile
            20                  25                  30
Val Val Ser Gly Ser Thr Met Leu Thr Tyr Thr Asp Ile Ser Gly Gly
        35                  40                  45
Leu Trp Gly Leu Lys Ile Thr Ile Pro Pro Asn Tyr Pro Leu Ala Pro
    50                  55                  60
Pro Asn Ile Arg Phe Thr Thr Arg Ile Ser His
65                  70                  75
```

<210> 30829
<211> 234
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (135)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30829

```
Ala Ala Thr Phe Asp His Gln Glu Val Ser Cys Ser Gly Thr Asp Val
1               5                   10                  15
Phe Gln Leu Asp Glu Asp Val Ile Thr Ile Ser Ser Pro Ser Leu Arg
            20                  25                  30
Ser Ala Leu Val Leu Ser Thr Ala Asp Arg Arg Trp Ile Asp Leu Leu
        35                  40                  45
Thr Gln Ile Ile Asn Asp Thr Trp Asp Glu Ser His Pro Gln Arg Pro
    50                  55                  60
Lys Asp His Gly Tyr Met Gly Ser Glu Glu Phe Ile Arg Leu Gln Phe
65                  70                  75                  80
Glu Glu Tyr Leu Leu Ala Leu Leu Ser Ser Met Lys Tyr His Glu Glu
                85                  90                  95
```

```
Leu His Ser Cys Ser Ser Gly Glu Ser Gly Gln Arg Ser Arg Ala Gln
            100                 105                 110
Leu Glu Ala Tyr Asn Ile Glu Gly Asp Pro Ala Leu Asp Phe Asn Pro
        115                 120                 125
Asp Phe Leu Ala His Trp Xaa Asn Tyr Phe Gln Leu Cys Leu Ile Leu
    130                 135                 140
Lys Arg Leu Thr Ser Asp Ala Leu Leu Phe Ser Asn Arg Trp Ser Leu
145                 150                 155                 160
Arg Gln Ser Leu Pro Arg Gly Gly Ser Pro Pro Leu Gly Gly Thr Gly
                165                 170                 175
Ser Ala Gly Gly Leu Phe Arg Gln Gln Gly Trp Arg Glu Pro Phe His
            180                 185                 190
Pro Gly Thr Glu Ser Gly Val Ala Met Glu Lys Ala Arg Arg Lys Gly
        195                 200                 205
Phe Phe Gln Pro Arg Thr Asn Pro Ser Ala Lys Pro Gly Phe Lys Glu
    210                 215                 220
Asn Lys Ser Ser Ser Ala Trp Gln Phe Pro
225                 230
```

<210> 30830
<211> 116
<212> PRT
<213> A.fumigatus

```
<400> 30830
Leu Tyr Thr Ile Gly Asn Ile Lys Leu Phe Leu Thr Val Ile Lys Tyr
1               5                   10                  15
Thr Pro Gln Ala Trp Met Asn Tyr Cys Arg Gln Ser Thr Lys Gly Phe
            20                  25                  30
Cys Met Ile Ala Val Leu Met Asp Phe Thr Gly Gly Met Leu Ser Leu
        35                  40                  45
Ile Gln Leu Ile Ile Asp Thr Ser Leu Gln Ala Asp Trp Ser Gly Ala
    50                  55                  60
Gln Gly Asn Ala Thr Lys Leu Val Leu Gly Asn Leu Thr Ile Phe Phe
65                  70                  75                  80
Asp Ile Ile Leu Leu Val Gln His Tyr Cys Leu Tyr Ser Arg Lys Ser
                85                  90                  95
Arg Ser Thr Gly Ala Gln Leu Ser Glu His Asp Pro Leu Leu Arg Thr
            100                 105                 110
Gly Asn Asp Ser
        115
```

<210> 30831
<211> 275
<212> PRT
<213> A.fumigatus

```
<400> 30831
Gly Asp Ile Gly Phe Ala Asp Leu His Trp Val Met Lys Gly Ser Val
1               5                   10                  15
Leu Ala Tyr Phe Leu Cys Met Cys Ser Asn His Leu Ala Cys Arg Ile
            20                  25                  30
Tyr Ala Leu Gly Ser Ala Val Leu Phe Gly Thr Ser Phe Pro Ala Glu
        35                  40                  45
Met Arg Ser Asn Val Ala Pro Ile Gly Phe Ile Leu Gly Ser Ile Leu
    50                  55                  60
```

```
Ile Ala Val Gly Leu Gly Gly Val Gln Ala Ser Ala Gln Pro Phe Ile
65                  70                  75                  80
Gly Arg Gly Cys Pro Ser Leu Val Phe Ala Gln Phe Lys Glu Asp Pro
                85                  90                  95
Thr His Phe Leu Leu Ser Arg Pro Ile Tyr Arg Ala Asn Leu Ala Asp
            100                 105                 110
Lys Gly Cys Lys Glu Arg Gln Ala Ser Ser Arg Asn Ser Arg Ser Asp
        115                 120                 125
Tyr Pro Val Tyr Leu Gln Cys Val Leu Leu Val Cys Arg Val Asp Ser
    130                 135                 140
Thr Phe Gln Asn Arg Arg Leu Ser Leu Leu Thr Gly Met Asp His His
145                 150                 155                 160
Ser Arg Met Val Asn Val Gly Ser Leu Gly Ser Ile Ala Thr Thr Leu
                165                 170                 175
Met Glu Arg Tyr Ile Gly Phe Trp Ser Ala Tyr Leu Leu Asp Leu Cys
            180                 185                 190
Ala Val Met Ile Ala Val Val Val Val His Leu Ala Lys Pro Lys Phe
        195                 200                 205
Gly Met Ile Gln Ala Ser Ser Ser Gln Leu Leu Ser Thr Ile Ala Asp
    210                 215                 220
Pro Glu Arg Ile Asn Ser Ser Ser Cys Arg Thr Ser Val Arg Pro Ser
225                 230                 235                 240
Pro Cys Arg Ser Leu Pro Met Val Cys Cys Ser Gly Trp Phe Gln Pro
                245                 250                 255
Arg Cys Cys Thr Ser Arg Val Ser Val Gly Glu Pro Pro Arg Asn Gly
            260                 265                 270
Thr Met Gly
        275
```

<210> 30832
<211> 149
<212> PRT
<213> A.fumigatus

<400> 30832

```
Arg His Lys Ile Ser Phe Ser Pro Val Asn Arg Ile Ser Leu Gly Phe
1               5                   10                  15
Ile Ile Met Ser Val Ala Met Ala Tyr Ser Ala Val Val Gln Ala Ile
            20                  25                  30
Ile Tyr Arg Ser Ala Pro Cys Tyr Ser His Pro Leu Ser Cys Pro Ala
        35                  40                  45
Ser Ser Gly Gly His Thr Pro Asn His Val His Val Leu Leu Gln Leu
    50                  55                  60
Pro Thr Phe Val Ile Ile Ala Leu Ala Glu Val Phe Cys Trp Pro Thr
65                  70                  75                  80
Gly Ser Glu Tyr Thr Tyr Ser His Ala Pro Lys Ser Met Lys Ser Val
                85                  90                  95
Leu Gln Ala Cys Tyr Ile Ser Thr Ala Gly Val Gly Tyr Leu Leu Gly
            100                 105                 110
Met Thr Leu Ser Pro Leu Ala Lys Asp Pro Leu Leu Val Val Leu Trp
        115                 120                 125
Ser Ala Thr Ala Ala Met Met Phe Val Thr Ala Cys Ala Phe Arg Val
    130                 135                 140
Ala Phe Arg Asn Phe
145
```

<210> 30833
<211> 171
<212> PRT
<213> A.fumigatus

<400> 30833
Ser His Trp Arg Lys Lys Lys Asp Val Val Gly Thr Ser Val Arg Thr
1 5 10 15
Ile Leu Ala Asn Val Phe Met Gln Thr Val Ile Phe Leu Tyr Leu Met
20 25 30
Asp Asn Ser Glu Asn Thr Ser Trp Met Ile Leu Ala Ser Gln Gly Phe
35 40 45
Gly Ile Leu Leu Glu Ala Trp Lys Ile Thr Lys Thr Val Asn Val Arg
50 55 60
Leu Arg Ala Pro Pro Ala Gly Ser Phe Tyr Ser Phe Leu Pro Tyr Val
65 70 75 80
Val Val Phe Glu Asp Lys His Lys Leu Ser Glu Thr Glu Lys Lys Thr
85 90 95
Lys Glu Tyr Asp Glu Ile Ala Phe Arg Trp Leu Tyr Ile Ile Ala Val
100 105 110
Pro Leu Leu Gly Ala Tyr Ala Ala Tyr Ser Leu Ile Tyr Asn Thr His
115 120 125
Lys Ser Trp Tyr Ser Tyr Ile Ile Glu Thr Leu Val Gly Ser Val Tyr
130 135 140
Ala Tyr Gly Phe Leu Met Met Val Pro Ser Leu Tyr Ile Asn Tyr Arg
145 150 155 160
Leu Lys Val Gly Ala Pro Gln Phe Lys Pro Leu
165 170

<210> 30834
<211> 110
<212> PRT
<213> A.fumigatus

<400> 30834
Tyr Arg Gln Gln Ser Val Ala His Met Pro Gly Lys Ala Leu Thr Tyr
1 5 10 15
Lys Phe Leu Asn Thr Phe Ile Asp Asp Leu Phe Ala Phe Thr Val Lys
20 25 30
Met Pro Trp Leu His Arg Leu Ala Thr Leu Arg Asp Asp Val Ile Phe
35 40 45
Phe Ile Trp Leu Tyr Gln Ser Tyr Lys Tyr Lys Val Asp Tyr Lys Arg
50 55 60
Val Asn Glu Phe Gly Gln Gly Gly Asp Ser Asp Glu Glu Ala Glu Glu
65 70 75 80
Pro Ala Ala Ala Glu Ser Glu Lys Lys Leu Glu Ala Val Ser Glu Ala
85 90 95
Ser Gly Arg Asp Asn Ala Glu Lys Ser Ala Arg Lys Arg Lys
100 105 110

<210> 30835
<211> 337
<212> PRT
<213> A.fumigatus

<400> 30835

```
Leu Leu Ile Ala Val Ala Tyr Val Pro Ser Lys Lys Arg Tyr Thr Asp
1               5                  10                  15
Ala Gly Gln Leu Ala Lys Thr Ile Ala Ser His Ala Tyr Glu Ser Gly
            20                  25                  30
Ile Ala Pro Ser Ala Leu Glu Arg Leu Ile His Ile Leu Thr Leu Lys
        35                  40                  45
Asn Leu Leu Asp Gln Gly Thr Ile Thr Thr Leu Ile Lys Asn Leu Tyr
    50                  55                  60
Pro Ile Asp Met Ile Ser Ser Lys Val Val Thr Gln Val Val Cys Cys
65                  70                  75                  80
Leu Gly Pro Ser Lys Asn Lys Pro Ser Pro Ala Thr Gln Ala Ser Leu
                85                  90                  95
Leu Arg Trp Leu Ile Leu Val Tyr Glu Phe Cys Glu Asp Arg Ser His
            100                 105                 110
Leu Ala Lys Leu Tyr Ala Val Leu Phe Asn His Leu Asp Met Ile Ser
        115                 120                 125
Leu Arg Lys Pro Leu Cys His Leu Leu Ser Ile Ile Thr Arg Arg Lys
    130                 135                 140
His Val Lys Pro Phe Arg Ile Gln Ala Leu Met Glu Leu Val Asn Ala
145                 150                 155                 160
Ala Gly Ala Glu Glu Lys Glu Leu Ile Gly Leu Leu Asn Val Phe Lys
                165                 170                 175
Asn Tyr Tyr Pro Asp Ile Ile Val Gly Asp Leu Gly Ala Leu Arg Arg
            180                 185                 190
Arg Gly Leu Val Phe Lys His Pro Asp Pro Glu Trp Thr Ser His Ala
        195                 200                 205
Lys Leu Leu Gln Asp Arg Asn Met Glu Gln Val Gln Ala Ala Gln Ser
    210                 215                 220
Ser Ser Phe Gln Val Val His Arg Gly Ala Ala Lys Arg Gly Lys Met
225                 230                 235                 240
Glu Val Ile Val Pro Val Leu Gln Thr Ser Arg Val Ser Ser Asn Arg
                245                 250                 255
Thr Ser Leu Glu Glu Leu Arg Ser Val Asp His Leu Ile Gly Lys Leu
            260                 265                 270
Asp Arg Ile Glu Leu Pro Asn Gln Ile Ile Ser Ala Met Ala Asp Asn
        275                 280                 285
Ile Ala Gln Lys Tyr Leu Phe Leu Val Gln Pro Glu Ser Ala Arg Leu
    290                 295                 300
Arg Leu Asp Asp Trp Leu Ser Ser Phe Phe Asp Glu Gln Leu Glu His
305                 310                 315                 320
Ala Gln Asp Glu Glu Arg Gly Ser Ser Glu Ser Leu Gly Tyr Ile Leu
                325                 330                 335
Ser
```

<210> 30836
<211> 93
<212> PRT
<213> A.fumigatus

<400> 30836

```
Arg Leu Lys Leu Met Lys Ile Lys Val Asp Phe Ala Asp Gly Lys Ile
1               5                  10                  15
Tyr Leu Ser Phe His Ser Arg Val Met Val Tyr Ser Ser Ser Gly Ile
            20                  25                  30
Ser Gln Lys Glu Lys Lys Asp Val Ser Ser His Ser Tyr Phe Leu Phe
```

```
        35                  40                  45
Arg Ala Asp Phe Ser Ala Leu Ser Leu Pro Asp Ala Ser Asp Thr Ala
    50                  55                  60
Ser Asn Phe Phe Ser Asp Ser Ala Ala Ala Gly Ser Ser Ala Ser Ser
65                  70                  75                  80
Ser Leu Ser Pro Pro Cys Pro Asn Ser Leu Thr Arg Leu
                85                  90
```

<210> 30837
<211> 166
<212> PRT
<213> A.fumigatus

<400> 30837

```
Gln Phe Ala Arg Leu Asn Glu Gln Gly Tyr Pro Leu Gly Leu Arg Leu
1               5                   10                  15
Leu Asp Leu Leu Phe Tyr Arg Ser Met Ser Ser Ser Thr Ser Thr Ser
            20                  25                  30
Leu Ser Ser Ser Ser Thr Ser Ala Ser Pro Pro Asn Arg Pro Leu Arg
        35                  40                  45
Ile Leu Pro Leu Leu His Leu Ile His Gly Pro Leu Trp Arg Leu Leu
    50                  55                  60
Phe Gln Arg Pro Ala Asp Ala Leu Glu His Ser Val Ser Pro Glu Thr
65                  70                  75                  80
Pro Asn Glu Tyr Met Ile Thr Asp Asn Asp Pro Leu Val Asn Thr Tyr
                85                  90                  95
Ile Ser Val Pro Lys Glu Met Asn Met Leu Asn Cys Ala Ala Phe Val
            100                 105                 110
Ala Gly Ile Ile Glu Gly Val Cys Asp Gly Cys Gly Phe Glu Ala Lys
        115                 120                 125
Val Thr Ala His Asn Gln Pro Thr Glu Met Trp Pro Gly Arg Thr Ile
    130                 135                 140
Phe Leu Leu Arg Phe Gly Glu Ser Val Met Glu Arg Glu Lys Val Leu
145                 150                 155                 160
Glu Arg Ala Gly Val Lys
                165
```

<210> 30838
<211> 136
<212> PRT
<213> A.fumigatus

<400> 30838

```
Arg Gln Asp Thr Gly Arg Phe Gly Glu Gly Phe Asn Asp Arg Pro Arg
1               5                   10                  15
Arg Arg Asp Gly Ala Pro Leu Gly Ile Arg Asp Glu Arg Phe Leu Pro
            20                  25                  30
Asp Arg Pro Glu Asp Arg Pro Lys Gly Pro Thr Gly Ala Asn Ala Ser
        35                  40                  45
Ala Val Arg Glu Arg Arg Arg Ser Arg Ser Arg Ser Tyr Ser Pro Arg
    50                  55                  60
Arg Asp Arg His Arg Asp Arg Arg Asp Asp Arg His Asp Ser Arg Arg
65                  70                  75                  80
Asp Arg Tyr Gly Gly Asp Asp Leu Tyr Ala Asp Arg Asp Arg Arg Asp
                85                  90                  95
Arg Ser Arg Asn Arg Asp Arg Ser Lys Asp Arg Tyr Arg Pro Glu Thr
```

```
            100                 105                 110
Asn Ser Arg Arg Lys Arg Ser Pro Ser Pro Cys Asp Asp Arg Asp Lys
        115                 120                 125
Arg Arg Arg Thr Asp Asp Ala Thr
    130                 135
```

<210> 30839
<211> 66
<212> PRT
<213> A.fumigatus

<400> 30839

```
Tyr Ala Ile Arg His Leu Pro Glu Ser Ser Gln Gly Ser Cys Ile Pro
1               5                   10                  15
Ala Val Val Thr Pro Ser Asp Asn Gly Ser Ala Gly Arg Lys Pro Pro
            20                  25                  30
Thr Tyr Phe Thr Pro Ala Leu Ser Asn Thr Phe Ser Leu Ser Met Thr
        35                  40                  45
Leu Ser Pro Asn Arg Asn Arg Lys Ile Val Arg Pro Gly His Ile Ser
    50                  55                  60
Val Gly
65
```

<210> 30840
<211> 76
<212> PRT
<213> A.fumigatus

<400> 30840

```
Leu Cys Ala Val Thr Leu Ala Ser Lys Pro Gln Pro Ser Gln Thr Pro
1               5                   10                  15
Ser Met Ile Pro Ala Thr Lys Ala Ala Gln Leu Ser Met Phe Ile Ser
            20                  25                  30
Phe Gly Thr Leu Met Tyr Val Phe Thr Ser Gly Ser Leu Ser Val Ile
        35                  40                  45
Met Tyr Ser Leu Gly Val Ser Gly Asp Thr Glu Cys Ser Arg Ala Ser
    50                  55                  60
Ala Gly Arg Trp Lys Ser Arg Arg Gln Ser Gly Pro
65                  70                  75
```

<210> 30841
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30841

```
Pro Glu Leu Thr Arg Glu Ile Arg Arg Gln Met Cys Gly Arg Ala Gly
1               5                   10                  15
Arg Lys Gly Lys Asp Asn Thr Gly Glu Thr Tyr Leu Ile Cys Gly Lys
            20                  25                  30
Ala Asp Ile Gln Ala Val Cys Asp Leu Leu Glu Ala Asp Met Pro Ala
        35                  40                  45
Ile Glu Ser Cys Leu Ala Pro Glu Lys Arg Gly Leu Lys Arg
    50                  55                  60
```

<210> 30842

<211> 169
<212> PRT
<213> A.fumigatus

<400> 30842
Ile Val Leu Ile Pro Phe Val Lys Ser Met Ala Ala Leu Thr Val Cys
1 5 10 15
Arg Val Gln Ser Gly Gly Ser Leu Lys Glu Asp Asn Pro Glu Gln Ile
20 25 30
Lys Gln Ala Thr Ile Tyr Arg Arg Ala Tyr Thr Ala Phe Gln Leu Arg
35 40 45
Asp Leu Ser Asn Glu Val Pro Leu Ser Thr Ile Ala Ser Arg Tyr Asn
50 55 60
Ile Pro Arg Gly Ala Val Gln Thr Leu Ala Gln Gln Cys His Gly Phe
65 70 75 80
Ala Ala Gly Met Val Lys Phe Cys Gln Arg Met Asp Trp Gly Met Leu
85 90 95
Ala Ala Val Leu Asp His Met Arg Asp Arg Leu Glu Ala Gly Ala Arg
100 105 110
Ala Asp Leu Leu Glu Met Ala Gln Val Thr Tyr Val Lys Gly Trp Thr
115 120 125
Ala Arg Leu Leu Arg Glu Asn Gly Phe Arg Asn Leu Arg Asp Leu Ala
130 135 140
Gly Ala Asp Ala Lys Asp Leu Val Pro Val Leu Met Met Val Cys Gln
145 150 155 160
Leu Val Val Phe Lys His Ala Trp Gly
165

<210> 30843
<211> 158
<212> PRT
<213> A.fumigatus

<400> 30843
Trp Met Ile Arg Ala Leu Leu Glu Ala Ile Ala Thr Gly Leu Val Ser
1 5 10 15
Gly Cys Glu Ala Ile Lys Glu Tyr Val Lys Cys Thr Leu Leu Tyr Arg
20 25 30
Thr Val Asp Lys Lys Ile Ala Ser Ser Ile Met Gln Ser Ser Leu Gln
35 40 45
Glu Leu Ile Asp Glu Gly Leu Leu Val Phe Lys Glu Asp Glu Ser Tyr
50 55 60
Ala Ala Thr Lys Leu Gly Gln Ala Val Val Ala Ser Ala Phe Ala Pro
65 70 75 80
Glu Asp Gly Leu Phe Val Tyr Glu Glu Leu Lys Arg Ala Leu Arg Ala
85 90 95
Phe Val Met Asp Gly Asp Met His Val Phe Tyr Met Phe Thr Pro Ile
100 105 110
Gln Val Ala Met Asn Thr Gln Ile Asp Trp Leu Ile Phe Arg Glu Gln
115 120 125
Leu Asp Asn Leu Asp Glu Ser Gly Leu Arg Ala Leu Gln Phe Val Gly
130 135 140
Val Gln Pro Tyr Phe Val Asn Leu Met Cys Ala Glu Leu Phe
145 150 155

<210> 30844

<211> 85
<212> PRT
<213> A.fumigatus

<400> 30844
Arg Thr Pro Ser Ser Arg Ala Leu Asp Phe Ile Val Gly Ala His Ile
1 5 10 15
Ala Cys Leu Cys Arg Arg Pro Asn Ser Ala Thr Asp Ala Gly Met Thr
20 25 30
Thr Glu Glu Arg Glu Leu Ile Ala Gln Ala Tyr Asp Gln Gly Val Leu
35 40 45
Lys Val Ile Val Ala Thr Cys Ser Leu Ala Ala Gly Val Asn Leu Pro
50 55 60
Ala Arg Arg Val Ile Ile Asn Gly Ala Arg Met Gly Arg Glu Leu Val
65 70 75 80
Gly Pro Ala Met Leu
85

<210> 30845
<211> 181
<212> PRT
<213> A.fumigatus

<400> 30845
Arg Arg Asn Val Gln Ser Ser Ile Glu Asp Ser Thr Phe Arg Ala Tyr
1 5 10 15
Leu Lys Asp Pro Tyr Phe Leu Lys Ser Ile Leu Pro Leu Ser Asp Asp
20 25 30
Leu Val Cys Ile Leu Ser Arg Ile Phe Glu Cys Asp Pro Ser Lys Arg
35 40 45
Ile Thr Ile Pro Glu Leu Arg Gln Leu Ile Leu Asp Cys Pro Gln Phe
50 55 60
Thr Leu Asn Pro Val Ile Pro Trp Val Ala Pro His Gly Pro Leu Pro
65 70 75 80
Tyr Asp Val Ile Ser Gly Pro Gln Val Pro Val Ser Val Pro Val His
85 90 95
Ala Phe Asn Pro Gln Pro Ser Thr Ser Ser Ser Asp Ser Ser His Tyr
100 105 110
Ser Asn Tyr Ser Glu Ser Ala Ala Ser Asp Ser Ser Cys Tyr Thr Glu
115 120 125
Val Phe Thr Asp Met Asp Ser Val Pro Ser Met Ser Ser Val Glu Tyr
130 135 140
Glu Pro Glu Thr Asp Cys Arg Gly Asp Leu Ser Leu Asp Ser Leu Thr
145 150 155 160
Cys Lys Asp Ile Ser Glu Ala Ile Val Val His Gln Ser Asp Pro Gln
165 170 175
Thr Leu Cys Val Cys
180

<210> 30846
<211> 195
<212> PRT
<213> A.fumigatus

<400> 30846
Ile Thr Asp Lys Gln Trp Asp Thr Met Leu Ala Val His Asn Thr Ala

```
1               5                   10                  15
Pro Phe Lys Leu Ile Arg Ala Ala Ala Pro Tyr Phe Arg Val Lys Asp
            20                  25                  30
Gly Glu Asp Arg Val Ile Ile Asn Ile Ser Ser Thr Ser Gly Ile His
        35                  40                  45
Gly Asn Ala Tyr Val Tyr Ile Ser Pro Ser Ala Val Asp Ile Ser Cys
    50                  55                  60
Ala Asp Gly Cys Trp Val Thr Arg Gly Gln Ala Asn Tyr Ala Leu Ala
65                  70                  75                  80
Lys Ala Gly Leu Val Gly Leu Thr Lys Thr Ile Thr Lys Glu Trp Gly
                85                  90                  95
Pro Ala Tyr Gly Val Arg Ala Asn Thr Ile Ala Phe Gly Phe Val Lys
            100                 105                 110
Thr Arg Leu Thr Ala Ala Lys Glu Glu Gly Ala Phe Ile Thr Thr Pro
        115                 120                 125
Asp Gly Thr Lys Val Ala Leu Gly Ile Pro Gly Lys Gln Leu Ala Gly
    130                 135                 140
Arg Lys Gly Asp Glu Lys Gln Ala Tyr Pro Asp Ile Pro Leu Gly Arg
145                 150                 155                 160
Pro Ala Ser Pro Glu Glu Ala Ala Arg Ala Ile Leu Gly Val Cys Ser
                165                 170                 175
Pro Tyr Phe Ser Tyr Val Ser Gly Glu Thr Ile Arg Val Thr Gly Gly
            180                 185                 190
Arg Asn Thr
        195
```

<210> 30847
<211> 82
<212> PRT
<213> A.fumigatus

```
<400> 30847
Ile Ala Gly Tyr Thr Thr His Leu Met Lys Arg Ile Gln Arg Gly Pro
1               5                   10                  15
Val Arg Gly Ile Ser Phe Lys Leu Gln Glu Glu Glu Arg Glu Arg Lys
            20                  25                  30
Asp Gln Tyr Val Pro Glu Val Ser Ala Leu Asp Val Ser Gln Thr Glu
        35                  40                  45
Ser Gly Gln Leu Asp Val Asp Ala Asp Thr Lys Asp Leu Leu Lys Ser
    50                  55                  60
Met Gly Val Ser Ser Val Leu Asn Ala Val Val Arg Gly Phe Lys Ala
65                  70                  75                  80
Val Arg
```

<210> 30848
<211> 169
<212> PRT
<213> A.fumigatus

```
<400> 30848
Ser Cys His Glu Ser Arg Val Ala Gly Ala Met Thr Glu His Asp Pro
1               5                   10                  15
Pro Gly Asn Glu Arg Pro Cys Gln Ser Cys Ile Arg Arg Gly Cys Ala
            20                  25                  30
Asp Ser Cys Arg Asp Gly Glu Arg Lys Lys Pro Lys Tyr Leu Glu Glu
```

```
        35                  40                  45
Gly Ser Tyr Arg Val Phe Thr Ile Gln Tyr Asn Val Pro Cys Tyr Lys
    50                  55                  60
His Cys Ala Ser Thr Thr Leu Asn His Thr Phe Ser Ser Arg Asp Ala
65                  70                  75                  80
Gly Phe Gln Leu Arg Thr Pro Ser Pro Asn Ser Gly Gln Thr Ala Cys
                85                  90                  95
Ser Tyr Gln Asp Phe Ser Pro Trp Thr Ile Ser Ala Glu Asp Pro Phe
            100                 105                 110
Ile Gly Leu Asp Leu Asp Asp Ala Gln Phe Glu Leu Glu Asp Ala Phe
        115                 120                 125
Leu Leu Glu Ser Pro Gln Ser Asp Gly Ile Glu Ala Asp Ser Gln Arg
    130                 135                 140
Asp Thr Leu Leu Ala Phe Ala Ile Gly Ser Gly Trp Ser Ser Thr Phe
145                 150                 155                 160
Leu Gln Ser Glu Tyr Glu Asp Pro Val
                165
```

<210> 30849
<211> 65
<212> PRT
<213> A.fumigatus

```
<400> 30849
Glu Ala Gly Gly Gln Val His Phe Ser Ser Arg Asn Met Arg Thr Leu
1               5                   10                  15
Tyr Ser Met Ala Val Asp Leu Ser Ala Phe Ile Pro Tyr Asp Asp Thr
            20                  25                  30
Tyr Met Tyr Phe Leu Gln Ser Ala Leu Ile Thr Leu Gly Gly Arg Leu
        35                  40                  45
Gly Phe His Asn Asp Ile Val Cys Phe Glu Lys Asp Thr His Met Leu
    50                  55                  60
Ala
65
```

<210> 30850
<211> 86
<212> PRT
<213> A.fumigatus

```
<400> 30850
Arg Pro Ser Arg Gln Tyr Ser Pro Val Pro Lys Arg Val Met Asp Gly
1               5                   10                  15
Ser Glu Pro Gly Asp Thr Val Ala Ala Ala Val Leu Ser Gly Ala Pro
            20                  25                  30
Thr Asp Leu Gln Ala Arg Thr Val Arg Tyr Ile Phe Arg Phe Ser Ser
        35                  40                  45
Ile Thr Arg Arg Phe Leu Thr Met Gln Leu Gly Phe Thr Ser Leu Arg
    50                  55                  60
Ser Leu Gln Arg Ser Pro Val Pro Gly Thr Ala Ile Thr Gly Glu Trp
65                  70                  75                  80
Thr Gly Thr Phe Cys Ile
                85
```

<210> 30851
<211> 116

<212> PRT
<213> A.fumigatus

<400> 30851
Ile Phe Leu Asn His Pro Pro Leu Ser Asp His Ala Thr Arg Ile Tyr
1 5 10 15
Lys Pro Ser Lys Pro Ala Thr Gln Ser Gly Thr Trp His Ser His His
20 25 30
Trp Arg Met Asp Trp Asp Ile Leu His Ile Gly His Arg Trp Glu Asn
35 40 45
Pro Leu Met Gly Trp Gln Ser Ser Gly Asp Phe Met Gln Gly Thr His
50 55 60
Leu Asn Phe Lys Thr Lys Glu Asp Ala Ile Leu Phe Ala Gln Lys Gln
65 70 75 80
Gly Tyr Glu Tyr Phe Val Gln Glu Pro Asn Glu Arg Arg Phe Val Pro
85 90 95
Lys Ala Tyr Ala Asn Asn Phe Ile His Glu Pro Lys Lys Leu Lys His
100 105 110
Ile Arg Thr Lys
115

<210> 30852
<211> 64
<212> PRT
<213> A.fumigatus

<400> 30852
Ser Phe Ile Asp Cys Thr Val His Ser Pro Val Phe Lys Val Ser Arg
1 5 10 15
Ser Ala Thr Trp Cys Ser Tyr Ser His Ile Leu Ile Ile Ile Gln Lys
20 25 30
Ser Tyr Arg Asn Ile Asn Ala Val Ser Lys Leu Asp Lys Met Ser Tyr
35 40 45
Ile Ala Pro Pro Arg Ser Leu Asp Leu Asp Ser Pro Gln Gly Lys Glu
50 55 60

<210> 30853
<211> 96
<212> PRT
<213> A.fumigatus

<400> 30853
Tyr Ser Asp Pro Glu Gly Gly Tyr Phe Val Leu Ala Asn Met Ser Ser
1 5 10 15
Val Lys Leu Pro Glu Asp Tyr Pro Phe Pro Pro His Val Ala Ser Arg
20 25 30
Pro Arg Asp Phe Lys Leu Cys Trp Phe Leu Ile His Glu Val Gly Val
35 40 45
Ala Ala Ile Pro Pro Thr Glu Phe Tyr Thr Asp Ala Asn Ala His Ile
50 55 60
Ala Glu Asp Tyr Leu Arg Phe Ala Val Cys Lys Asn Asp Asp Val Leu
65 70 75 80
Glu Thr Ala Lys Glu Arg Leu Arg Gly Leu Lys Lys Tyr Ile Ser Lys
85 90 95

<210> 30854

<211> 532
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (400)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30854

```
Asn Ile Ser Pro Glu Gln Leu Ile Thr Arg Leu Ser Ala Ile Asn Leu
1               5                  10                  15
Ile Arg Ala Arg Thr Ile Thr Arg Leu Ser Pro Thr Glu Ser Leu Ser
            20                  25                  30
Ser Gly Asp Thr Phe Ser Pro Phe Ser Asp Arg Phe His Ser Ser Ser
        35                  40                  45
Gly His Ser Ala Glu Ser Asn Pro Ser Pro Val Val Val Met Gln Pro
    50                  55                  60
Val Pro Thr Leu Arg Lys Arg Lys Lys Lys Lys Lys Lys Lys Lys Lys
65                  70                  75                  80
Thr Arg Asn Arg Asn Arg Gly Val Asn Ser Gln Asp Ser Met Ala Glu
                85                  90                  95
Gly Pro Ser Gly Ser Arg Asn Glu Thr His Ile Cys Arg Thr Pro His
            100                 105                 110
Val Arg Pro Ser Val Asp Ser Tyr Ile Gln Ala Gln Gly Glu Lys Asp
        115                 120                 125
Asn Gln Gln Met Arg Ser Pro Glu Pro Pro Glu Pro Ala Met Phe Gln
    130                 135                 140
Ser Asn Trp Thr Ser Ala Asp Cys Ala Pro Ser His Asn Glu Leu Gln
145                 150                 155                 160
Gln Gly Asp Ala Asp Leu Gln Pro Gly Pro Gly Thr Val Gly Lys Pro
                165                 170                 175
Ser Ser Ala Met Leu Asn Leu Gly Glu Asn Pro Gly Ser Ser Val Thr
            180                 185                 190
Ser Leu His Asp Lys Val Ile Ser Ala Gly Glu Ala Ser Pro Val Pro
        195                 200                 205
Ser Ser Ser Gln His Pro Gly Ala Asn Lys Asp Ser Arg Arg Pro Ala
    210                 215                 220
Asn Ser Ala Lys Lys Met Leu Pro Ser Ile Glu Glu Ala Ala Ser Glu
225                 230                 235                 240
Ala Thr Gln Asp Ser Leu Ser Asn Asp Ala Ser Thr Phe Met Met Arg
                245                 250                 255
Ser Lys Ser Leu Ser Ala Arg Thr Gln Ile Arg Asp Thr Ser Pro Tyr
            260                 265                 270
Lys Thr Ala Ser Thr Ile Leu Thr Ala Asp Glu His Ala Pro Ser Lys
        275                 280                 285
Pro Glu Ser Glu Lys Asp Ser Ser Ser Val Thr Asn Leu Asp Ile Glu
    290                 295                 300
Gln Ser Ser Gln Gln Thr Pro Tyr Ser Lys Asp His Glu Ser Pro His
305                 310                 315                 320
Phe Ser Asn Ser His Ser His Pro Ser Pro Pro Ala Glu Ser Asp Ile
                325                 330                 335
Ser Thr Leu Ser Thr Pro Lys Ala Tyr Arg Asn Val Ser Ser Gln Arg
            340                 345                 350
Pro Asp Ala Phe Phe Trp Gln Leu Asp Ser His Gly Phe Pro Cys Ala
        355                 360                 365
```

```
Lys Gln Ser Cys Asp Lys Arg Cys Asn Leu Trp Asp Gly Arg Thr Val
    370                 375                 380
Ile Cys Pro Lys Cys Gly Pro Phe Ser Glu Val Arg Tyr Cys Cys Xaa
385                 390                 395                 400
Glu His Leu Leu Gln Asp Ile Lys Trp His Trp Val Tyr Cys Gly Gln
                405                 410                 415
Met Thr Phe Thr Glu Pro Cys Arg Glu Asn Ser Val Pro Arg Asp Val
            420                 425                 430
Arg Asp Gly Pro Pro Leu Leu Pro Cys Leu His Pro Tyr Asp Thr Pro
        435                 440                 445
Glu Arg His Arg Gln Ala Val Tyr Phe Asn Val Asn Ile Arg Glu Gly
    450                 455                 460
Asp Tyr Phe Val Phe Ser Asp Tyr Ala Asp Trp Ala Gln Ala Gly Val
465                 470                 475                 480
Pro Glu Ile Asn Leu Glu Met Arg Cys Ser His Arg Val Leu Tyr Thr
                485                 490                 495
Ile Lys Phe Glu Asp Arg Glu Lys Lys Asp Arg Phe Arg Arg Ile Leu
            500                 505                 510
Ala Ala Cys Leu Phe Ser Lys Pro Trp Ser Ser Thr Lys Arg Ala Ser
        515                 520                 525
Glu Ile Ala Cys
    530
```

<210> 30855
<211> 626
<212> PRT
<213> A.fumigatus

<400> 30855

```
Ser Ser Thr Gly Lys Pro Lys Gly Thr Val Ile Pro His Ser Ala Met
1               5                   10                  15
Phe Ala Ala Trp Asp Gly Ile Leu Tyr Ala Thr Thr Gln Asp Asn Ser
            20                  25                  30
Arg Arg Ile Met Trp Ser Leu Asn Tyr Thr Phe Asp Gly Ser Phe Tyr
        35                  40                  45
Pro Leu Phe Pro Thr Leu Ala Thr Gly Arg Thr Leu Cys Val Ala Pro
    50                  55                  60
Gln His Thr Ile Val Gly Asn Leu Ala Asp Val Ile Thr Lys Leu Arg
65                  70                  75                  80
Val Asp Gln Ile Asn Leu Thr Pro Thr Met Ala Ser Leu Leu His Pro
                85                  90                  95
Asp Asp Val Pro Thr Leu Glu Ile Leu Ala Thr Gly Gly Glu Pro Val
            100                 105                 110
Thr His His Met Leu Asn Val Trp Ala Pro Arg Ile Lys Val Tyr Thr
        115                 120                 125
Ser Tyr Gly Pro Thr Glu Ala Thr Ile Cys Val Thr Thr Arg Gln Val
    130                 135                 140
Thr Pro Asp Met Asn Ile Arg Asn Val Gly Arg Pro Phe Pro Asn Thr
145                 150                 155                 160
Thr Ala Leu Ile Leu Asp Pro Asp Thr Met Glu Glu Leu Pro Ser Gly
                165                 170                 175
Ser Val Gly Glu Leu Cys Ile Ala Gly Pro Gln Leu Ala Arg Gly Tyr
            180                 185                 190
Leu Asn Arg Pro Glu Ala Thr Asn Lys Ala Phe Gln Gly Thr Ala Asp
        195                 200                 205
Gln Arg Phe Tyr Arg Thr Gly Asp Leu Ala Arg Leu Leu Pro Asn Gly
```

```
    210                 215                 220
Glu Ile Glu Leu Phe Gly Arg Lys Asp Asp Gln Val Lys Ile Asn Gly
225                 230                 235                 240
His Arg Met Glu Leu Gly Glu Ile Glu Ser Val Ile Lys Gln Thr Asn
                245                 250                 255
Val Phe Arg Gln Cys Ala Val Ile Ala Ala Thr Val Leu Lys Lys Lys
            260                 265                 270
Gln Leu Val Ala Phe Cys Ser Ser Ser Val Gln Thr Pro Gly Glu Ala
        275                 280                 285
Thr Gly Glu Asp Leu Leu Leu Ala Pro Thr Glu Leu Pro Glu Val Asp
    290                 295                 300
Gln Ile Lys Ala Gln Leu Thr Thr Leu Pro Gln Tyr Met Val Pro Thr
305                 310                 315                 320
Ile Trp Leu Pro Val Ser Lys Leu Pro Ser Leu Thr Ser Gly Lys Ile
                325                 330                 335
Asp Arg Lys Arg Leu Thr Ala Leu Val Glu Gly Met Ala Asp Asn Val
            340                 345                 350
Leu Lys Ser Tyr Leu Pro His Ser Glu Thr Ser Glu Ile Cys Ser Glu
        355                 360                 365
Ala Glu Arg Glu Leu Gln Ser Leu Trp Ser Ala Leu Phe Asp Thr Pro
    370                 375                 380
Ala Glu Asp Ile His Ala Asn Ser Thr Phe His Ala Leu Gly Gly Asp
385                 390                 395                 400
Ser Ile Ser Ala Leu Asn Leu Gly Ser Met Leu Arg Arg Arg Gly Tyr
                405                 410                 415
Lys Ile Gln Ile Asn Asp Ile Leu Ser Arg Ser Thr Leu Arg Glu Gln
            420                 425                 430
Ala Ala Leu Met Val Gln Gly Gln Pro Asn Gly Asp Ser Thr Ala Ala
        435                 440                 445
Glu Ala Val Pro Gln Pro Val Phe Gln Pro Pro Glu Ala Val Tyr Glu
    450                 455                 460
Arg Leu Val Glu Leu Gly Val Ser Arg Asn Asp Val Glu Asp Ile Tyr
465                 470                 475                 480
Pro Cys Ser Pro Gly Gln Ile Glu Phe Phe Thr Gln Gly Glu Lys Pro
                485                 490                 495
Asp Arg Phe Trp Gln Leu Met Ala Val Arg Thr Leu Pro Asp Asp Leu
            500                 505                 510
Asp Phe Asp Arg Trp Ile Tyr Leu Thr Thr Gln Leu Thr Lys Thr Asn
        515                 520                 525
Gln Ile Leu Arg Ala Leu Tyr Leu Gln Thr Asp Ala Glu Asn Pro Gln
    530                 535                 540
Thr Leu Val Gln Val Val Leu Lys His Pro Val Leu Asn Leu Ala Tyr
545                 550                 555                 560
Arg Ser Tyr Arg Thr Glu Glu Glu Lys Gln Ser Ile Leu Glu Ala Glu
                565                 570                 575
Trp Gln Arg Pro Phe Asp Pro Ala Lys Pro Phe Val Arg Tyr Thr Leu
            580                 585                 590
Leu Glu Asp Ser Gln Gly Thr Arg Ser Leu Val Ile Asn Leu His His
        595                 600                 605
Ser Ser Tyr Asp Val Phe Thr Ala Gly Leu Glu Gly Gly Arg Ser Ile
    610                 615                 620
Lys Arg
625
```

<210> 30856
<211> 87

<212> PRT
<213> A.fumigatus

<400> 30856
Val Arg Leu Leu Ile Glu Ala Pro Cys Ser Trp Glu Thr Tyr Tyr Ala
1 5 10 15
Arg Thr Leu Ala His Leu Ser Ser Lys His Gln Pro Asn Ala Arg Pro
20 25 30
Thr Pro Thr Ala Asp Ala Asp Ala Asp Ser Ala Glu Ser Glu Ser Glu
35 40 45
Thr Glu Ser Val Asp Asp Asp Asp Asp Pro Gly Thr Ser Trp Phe Ser
50 55 60
Glu His Asn Ala Pro Glu Lys Val Leu Arg Phe Leu Thr Asp Glu Ser
65 70 75 80
Phe Pro Ala Ser Ser Pro Thr
85

<210> 30857
<211> 320
<212> PRT
<213> A.fumigatus

<400> 30857
Leu His Ala Leu Gln Pro Leu Val Lys Thr Ala Phe Glu Tyr Leu Pro
1 5 10 15
Ser Glu Thr Glu Ser Pro Val Thr Pro Cys Ser Asp Ser Ser Arg Pro
20 25 30
Glu Tyr Ile His Val Gly Trp Asp His Asn Ser Glu Ile Leu Asp Asp
35 40 45
Leu Leu Pro Leu Cys Gln Leu Ile Asp Ser Arg Val Ser Gln Gly Lys
50 55 60
Lys Val Leu Ile His Cys Gln Leu Gly Ala Ser Arg Ser Ala Ser Leu
65 70 75 80
Val Ile Ala Tyr Gly Leu Tyr Lys Asn Arg His Leu Asp Phe Asn Ser
85 90 95
Met Tyr Glu Ile Val Lys Gly Arg Ser Arg Trp Val Gly Pro Asn Met
100 105 110
Ser Leu Ile Tyr Gln Leu Thr Asp Phe Arg Ser Arg Leu Gln Gln Leu
115 120 125
Ser Gly Thr Ser Lys Pro Ala Pro Glu Glu Trp Phe Val Asn Gly Pro
130 135 140
Arg Arg Gly Ser Glu Pro Gln Ser Ser Arg Ser Glu Arg Thr Thr Glu
145 150 155 160
Ala Ser Leu Thr Pro Pro Ser Ser Ser Ser Cys Asn Ser Gly Tyr Ser
165 170 175
Arg Ile Ala Thr Pro Ala Ser Trp Ser Gln Thr Ser Ser Gly Thr Leu
180 185 190
Ser Val Pro Ser Thr Glu Arg Ala Thr Pro Pro Ser Val Ser Pro Trp
195 200 205
Arg Ile Pro Lys Ser Leu Ser His Lys Arg Ser Leu Ser Pro Arg Pro
210 215 220
Leu Pro Leu Arg Gln Arg Phe Glu Thr Ala Gln Thr Ala Ala Lys Asp
225 230 235 240
Val Gly Thr Arg Ser Leu Ala Pro Ala Asp Ala Ile Glu Lys Asp Thr
245 250 255
Val Glu Asp Pro Leu Asn Leu Phe Ser Pro Arg Thr Ser Gln Phe Leu

```
            260                 265                 270
Ala Pro Ser Leu Ala Pro Pro Phe Pro Asp Gly Leu Glu Asp Arg Leu
        275                 280                 285
Pro Gly Gly Pro His Phe Arg Thr Glu Thr Ala Asp Pro Arg Ser Pro
    290                 295                 300
Pro Pro Gly Asn Glu Arg Leu Ile Met Arg Asn Ile Asp Glu Phe Leu
305                 310                 315                 320

<210> 30858
<211> 70
<212> PRT
<213> A.fumigatus

<400> 30858
Ser Ser Phe Leu Phe Ile Leu Phe Ala Ile His Phe Arg Phe His Leu
1               5                   10                  15
Ile Phe Gln Tyr Leu Pro Leu Cys Leu Leu Tyr Phe Asp Asp Ser Met
            20                  25                  30
Thr Lys Ala Gly Phe Asp Val Val Ile Cys Ile Leu Ile Pro Asn Leu
        35                  40                  45
Tyr Leu His Phe Phe Phe Leu Phe Asp Lys Trp Val Thr Gly Arg Leu
    50                  55                  60
Glu Ala Leu Leu Leu His
65                  70

<210> 30859
<211> 171
<212> PRT
<213> A.fumigatus

<400> 30859
Val Pro Val Arg Gln Ser His Ile Leu Ser Pro Gly Ile Leu Thr Ile
1               5                   10                  15
Phe Ser Phe Arg Glu Ser Ser Trp Ala Leu Ser Asp Ile Ser Asn Gly
            20                  25                  30
Ser Arg Glu Thr Glu Thr Pro Leu Ala Met Ala Glu Pro Thr His Gln
        35                  40                  45
Thr Glu Ala Lys Lys Thr Met Thr Gly Phe Lys Pro Leu Ser Asn Ala
    50                  55                  60
Glu Asp Tyr Ser Leu Pro Ala Thr Ala Ser Asp Leu Ser Pro Arg Ala
65                  70                  75                  80
Glu Ala Ala Val Ala Asn Gly Leu Ser Leu Glu Thr Ala Asp Glu Asp
                85                  90                  95
His Glu Glu Val Asp Glu Asp Tyr Val Ala Val Asp Pro Asp Glu Ile
            100                 105                 110
Ser Asp Phe Ser Tyr Trp Leu Arg Arg Pro Pro Val His His Arg Thr
        115                 120                 125
Lys Leu Asp Glu Leu His Pro Phe Val Gln Thr Leu Thr Val Ser Asn
    130                 135                 140
Val Asp Asp Cys Val Glu Val Glu Asn Ala Phe Pro Glu Asn Glu Arg
145                 150                 155                 160
Cys Ser Arg Glu Lys Val Cys Asp Leu Val Asn
                165                 170

<210> 30860
<211> 61
```

<212> PRT
<213> A.fumigatus

<400> 30860
Ala Ala Pro Gln Val His Ser Leu Thr Phe Ser Arg Leu Ser Arg Arg
1 5 10 15
Thr Gly Asn Pro Ser Asn Phe Gln Pro Phe Pro Val Ile Ser Ala Ile
20 25 30
Ala Val Thr Thr Val Tyr Leu Gly Thr Arg Ala Pro Val Ser His Pro
35 40 45
Glu Ser Trp Tyr Ser Tyr His Leu Phe Phe Pro Arg Val
50 55 60

<210> 30861
<211> 104
<212> PRT
<213> A.fumigatus

<400> 30861
Cys Asp Pro Val Ala Ser Arg Thr Thr Trp Gln Ser Pro Thr Tyr Ile
1 5 10 15
Lys Val Pro Arg Leu Thr Pro Phe Pro Phe Lys Ser Val His Lys Thr
20 25 30
Lys Ala Thr Pro Thr Pro Thr His Ile Leu Arg Thr Met Ala Pro Val
35 40 45
Leu Lys Lys Tyr Lys Ala Ala Ala Val Asn Ala Glu Pro Gly Trp Phe
50 55 60
Asp Leu Glu Glu Ser Val Arg Arg Thr Ile His Trp Ile Asp Glu Ala
65 70 75 80
Gly Lys Ala Gly Cys Lys Phe Ile Ala Phe Pro Glu Leu Cys Lys Ser
85 90 95
Pro Leu Arg Val Pro Arg Arg His
100

<210> 30862
<211> 104
<212> PRT
<213> A.fumigatus

<400> 30862
Ala Met Cys Thr Ser Gly Tyr Ser Val Ser Gly Leu Thr Ala Thr Gln
1 5 10 15
Leu Val Thr Pro Ala Tyr Ala Ile Glu Thr Gly Thr Phe Thr Leu Ala
20 25 30
Pro Trp Gln Thr Ile Thr Ala Glu Gly Leu Lys Leu Asn Thr Pro Pro
35 40 45
Gly Lys Glu Leu Glu Asp Pro His Ile Tyr Asn Gly His Gly Arg Ile
50 55 60
Phe Gly Pro Asp Gly Gln Asn Leu Val Ala His Pro Asp Lys Asp Phe
65 70 75 80
Gln Gly Leu Leu Leu Val Asp Val Ser Arg Ala Val His Gly Gly Val
85 90 95
Phe Ala Phe Ser Gly Leu Thr Gly
100

<210> 30863

<211> 89
<212> PRT
<213> A.fumigatus

<400> 30863
Ile Asp Leu Asp Glu Cys His Leu Pro Lys Ala Leu Ala Asp Phe Val
1 5 10 15
Ser Leu Thr Asp Pro Ala Pro Met Ser Glu Ala Asn Thr Ser Gln Gly
20 25 30
Gly His Tyr Met Arg Pro Asp Leu Ile Arg Leu Leu Val Asp Thr Asn
35 40 45
Arg Lys Asp Leu Val Val His Glu Asp Arg Val Asn Gly Gly Val Ala
50 55 60
Tyr Thr Arg Thr Val Asp Arg Val Gly Leu Ser Ala Pro Leu Asp Ala
65 70 75 80
Met Asn Gln Gly Pro Glu Asp Glu Lys
85

<210> 30864
<211> 229
<212> PRT
<213> A.fumigatus

<400> 30864
Val Thr Pro Ser Cys Ser Ser Ala Ala Leu Ile Thr Asp Ser Thr Gly
1 5 10 15
Ile Pro Gly Tyr Pro Tyr Trp Ala Trp Lys Val Asn Tyr Gln Glu Ser
20 25 30
Leu Pro Leu Leu Lys Lys Tyr Arg Glu Asn Ser Leu Pro Ser Asp Ser
35 40 45
Glu Glu Met Arg Arg Ile Arg Asn Ala Ala Arg Thr Asn Lys Ile Tyr
50 55 60
Val Ser Leu Gly Tyr Ser Glu Val Asp Leu Ala Ser Leu Tyr Thr Thr
65 70 75 80
Gln Val Leu Ile Ser Pro Ser Gly Asp Ile Leu Asn His Arg Arg Lys
85 90 95
Ile Arg Ala Thr His Val Glu Arg Leu Val Phe Gly Asp Gly Thr Gly
100 105 110
Asp Thr Thr Glu Ser Val Thr Gln Thr Glu Ile Gly Arg Val Gly His
115 120 125
Leu Asn Cys Trp Glu Asn Met Asn Pro Phe Met Lys Ala Tyr Ala Ala
130 135 140
Ala Leu Gly Glu Gln Val His Val Ala Ala Trp Pro Leu Tyr Pro Gly
145 150 155 160
Lys Glu Thr Leu Lys Tyr Pro Asp Pro Phe Thr Asn Val Ala Glu Ala
165 170 175
Asn Ala Asp Val Ser Asn Val His Ile Trp Val Phe Arg Leu Trp Thr
180 185 190
Asn Ser Asp Pro Ala Gly His Ala Arg Val Cys His Arg Asn Arg Asp
195 200 205
Phe His Ser Gly Pro Met Ala Asp His His Arg Arg Gly Ala Gln Ala
210 215 220
Gln His Ala Pro Gly
225

<210> 30865

<211> 79
<212> PRT
<213> A.fumigatus

<400> 30865

```
Tyr Gln Ser Pro Trp Arg Leu Ala Gly Met Trp Ser Asp Ala Thr Ile
1               5                  10                  15
Lys Asp Val Ile Leu Ile Phe Met Val Gln Thr Trp Leu Asp Asp Ser
            20                  25                  30
Thr Pro Pro Pro Gly Asp Phe Ala Asn Cys Lys Val Cys Asn Ser Pro
        35                  40                  45
Met Leu Leu Leu Leu Glu Leu His Gly Asp Leu Pro Asp His Phe Pro
    50                  55                  60
Asp Asp Glu Arg Arg Leu Tyr Ile Ser Gly Ser Ser Pro Arg Asp
65                  70                  75
```

<210> 30866
<211> 526
<212> PRT
<213> A.fumigatus

<400> 30866

```
Pro Phe Leu Pro Arg Ser Ser Val Arg Lys Asn Asn His Leu Ala His
1               5                  10                  15
Leu Thr Thr Ala Gln Asn Gly Leu Gln Leu Ser Val Asn Asn Ser Lys
            20                  25                  30
Ser Ser Phe Ser Ser Arg Arg Leu Ile Ser Ile Gln Glu Leu Gly Leu
        35                  40                  45
Gln Asp His Gln Leu Arg Thr Leu Cys Ala Ser Leu Gln Ile Pro Cys
    50                  55                  60
Asn Cys Pro Val Asp Ile Thr Val Tyr Glu Arg Asn Ser Tyr Ile Gly
65                  70                  75                  80
Gly Arg Ser Thr Thr Val Asn Ala Leu Asp Asp Pro Lys Tyr Pro Val
                85                  90                  95
Glu Leu Gly Ala Ser Ile Phe Val Ser Val Asn Tyr Asn Leu Val Asn
            100                 105                 110
Ala Ser Lys Glu Leu Gly Leu Ala Val Arg Ser Ala Asp Gln Ala Arg
        115                 120                 125
Pro Arg Glu Ser Asp Asp Thr Ile Gly Val Trp Asp Gly Glu Gln Phe
    130                 135                 140
Val Leu Val Leu Gln Asp Thr Tyr Ser Trp Trp Asn Ile Ala Lys Leu
145                 150                 155                 160
Leu Trp Arg Tyr Gly Leu Ser Pro Ile Arg Thr Gln Asn Leu Met Arg
                165                 170                 175
Ser Thr Val Asn Lys Phe Leu Arg Leu Tyr Asp Ser Pro Tyr Phe Pro
            180                 185                 190
Phe Arg Ser Leu Thr Ser Ala Ala Ala Ala Val Asp Leu Leu Asn Thr
        195                 200                 205
Thr Ala Val Pro Gly Glu Ala Phe Leu Gln Asp Gly Gly Ile Ser Ala
    210                 215                 220
Glu Phe Ser Arg Asp Val Ile Gln Ala Ser Thr Arg Val Asn Tyr Gly
225                 230                 235                 240
Gln Asn Leu Pro Leu Ile His Gly Leu Glu Thr Met Val Cys Met Ala
                245                 250                 255
Thr Asp Gly Ala Val Ser Ile Glu Gly Gly Asn Trp Gln Ile Phe Asp
            260                 265                 270
```

```
Gly Met Leu Arg Ser Ser Glu Ala Asn Val Arg Leu Asn His Ser Val
        275                 280                 285
Thr Ser Ile Gln Arg Asn Ala Asp Gly Thr Leu Ala Val Gly Phe Lys
    290                 295                 300
Ala Thr Glu Val Glu Glu Asn Ser Val Phe Glu Glu Val Val Ile Ala
305                 310                 315                 320
Gly Pro Leu Gln Tyr Ser Gly Ile Ala Ile Glu Pro Pro Leu Gln His
                325                 330                 335
Thr Pro Asp Gln Ile Pro Tyr Val Lys Leu His Val Thr Leu Phe Ser
            340                 345                 350
Ser Pro His Leu Leu Ser Pro Arg Phe Phe Asn Leu Pro Ser Asn Lys
        355                 360                 365
Arg Ala Pro Glu Thr Val Leu Thr Thr Leu Pro Arg Gly Val Asp Leu
    370                 375                 380
Gly Ser Asn Lys Ala Gly Val Gly Pro Ala Gly Phe Trp Ser Ile Ser
385                 390                 395                 400
Thr Leu Arg Thr Val Gln Ala Pro Arg Ser Asp Gly Thr His Glu Lys
                405                 410                 415
Gln Tyr Val Tyr Lys Val Phe Ser Pro Glu Arg Leu Asn Ala Ser Phe
            420                 425                 430
Val Gly Ala Ile Leu Gly Leu Glu Asn Lys Glu Tyr Ser Val Asp Ala
        435                 440                 445
Pro Ile Gly Asp Leu Pro Lys Asp Asp Val Ser Trp His Tyr Glu Lys
    450                 455                 460
Ile Trp Asn Pro Tyr Pro Phe Leu Tyr Pro Arg Val Thr Phe Glu Asp
465                 470                 475                 480
Thr Met Ile Ala Pro Asn Leu Trp Tyr Thr Gly Gly Ile Glu Ser Phe
                485                 490                 495
Ile Ser Thr Met Glu Thr Ser Ala Leu Met Gly Lys Asn Val Ala Ser
            500                 505                 510
Leu Ile Ser Gln Val Tyr Thr Leu Gly Arg Lys His Arg Val
        515                 520                 525

<210> 30867
<211> 239
<212> PRT
<213> A.fumigatus

<400> 30867
Pro Arg Gly Gly Thr Ala Ala Ala Leu Ile Cys Arg Asp Pro Trp Asn
1               5                   10                  15
Leu Gln Pro Pro Gly Ala Gly Ala His Gly Pro Leu His Gly Thr Arg
            20                  25                  30
Pro Asn Pro Gly Tyr Ser Arg Arg Asp Tyr Ile Arg Ala Gly Trp Cys
        35                  40                  45
Gly Ile Asp Pro Gly Arg Phe Val Pro Ala Gln Thr Asp Gly Gln Arg
    50                  55                  60
Val Glu Gly Lys Pro Thr Ala Gly Ala Glu Gln Ile Val Tyr Val Pro
65                  70                  75                  80
Phe Pro Ala Ala Pro Ser Gly Met Ala Glu Ile Asn Leu Arg Val Ser
                85                  90                  95
Leu Thr Val Ser Met Gly Arg Ile Ala Gln Ser Asp Met His Leu Ser
            100                 105                 110
Asp Gly Leu Arg Ile Pro Arg Gly Thr Thr Leu Met Val Ser Ala His
        115                 120                 125
Ala Met Trp Glu Pro Glu Ile Tyr Pro Asp Pro Arg Arg Tyr Asp Gly
```

```
    130                 135                 140
Tyr Arg Phe Tyr Lys Leu Arg Gln Val Pro Gly Gln Glu Gly Gln His
145                 150                 155                 160
Gln Leu Val Ser Ala Thr Glu Lys His Met Gly Phe Gly Tyr Gly Lys
                165                 170                 175
His Ala Cys Pro Gly Arg Phe Phe Ala Ala Ala Glu Ile Lys Val Ala
            180                 185                 190
Leu Cys His Ile Leu Leu Lys Tyr Asp Leu Glu His Arg Gly Gly Gly
        195                 200                 205
Pro Pro Pro Arg Val Trp Ser Gln Gly Ile His Leu Phe Pro Asp Pro
    210                 215                 220
Thr Ala Arg Ile Arg Val Arg Arg Arg Lys Glu Glu Ile Ser Leu
225                 230                 235

<210> 30868
<211> 217
<212> PRT
<213> A.fumigatus

<400> 30868
Asp Gln Pro Leu Ser Asn Gly Ser Gln Thr Arg Arg Ala Asp Gly Ile
1               5                   10                  15
Gln Ser Leu Tyr Trp Thr Arg Glu Cys Gly Asp Pro Lys Trp His Asn
            20                  25                  30
Val Ile Ile Thr Tyr Thr His Asn Val Tyr Arg Ala Ala Gln Ala Leu
        35                  40                  45
His Phe Trp Pro Lys Phe Leu Arg Pro Ile Val Ala Arg Phe Leu Pro
    50                  55                  60
Ala Cys Gln Thr Leu Gln Ala Gln Ile Ala Glu Ala Arg Glu Ile Leu
65                  70                  75                  80
Glu Pro Leu Val Ala Gln Arg Arg Ala Asp Arg Ala Cys Arg Ala Ala
                85                  90                  95
Gln Gly Lys Pro Val Pro Ser Arg Ala Asp Val Ile Asp Trp Leu Glu
            100                 105                 110
Asp Ser His Gly Asp Gln Pro Tyr Asp Pro Val Ala Ala Gln Leu Leu
        115                 120                 125
Leu Ser Phe Ala Ala Ile His Gly Thr Ser Asn Leu Leu Ala Gln Ala
    130                 135                 140
Leu Met Asp Leu Cys Thr Ala Pro Asp Leu Ile Arg Asp Ile Arg Ala
145                 150                 155                 160
Glu Ile Thr Ser Val Leu Gly Gly Ala Gly Leu Thr Arg Ala Ala Leu
                165                 170                 175
Tyr Arg Leu Lys Leu Met Asp Ser Ala Leu Lys Glu Ser Gln Arg Leu
            180                 185                 190
Ala Pro Asn Arg Leu Cys Thr Ser Pro Ser Leu Pro Pro Arg Leu Glu
        195                 200                 205
Trp Pro Arg Leu Ile Ser Gly Phe Leu
    210                 215

<210> 30869
<211> 70
<212> PRT
<213> A.fumigatus

<400> 30869
Asp Asp His Ile Glu Ser Val Gly Asn Ala Tyr Ser Phe Ala Lys Pro
```

```
1               5                   10                  15
Cys Lys Pro Ala Lys Ile Ser Pro Ala Leu Val Pro Leu Leu Met Gly
            20                  25                  30
Ser Asn Thr Gly Gly Ile Tyr Gly Thr Val Pro Pro Ser Ala Ala Leu
        35                  40                  45
Val Ile Leu Ser Ser Gly Ala Tyr Asn Gly Cys Ser Ser Arg Thr His
    50                  55                  60
Leu Asp Lys Met Asn Glu
65                  70
```

<210> 30870
<211> 227
<212> PRT
<213> A.fumigatus

<400> 30870

```
Leu Cys Pro Thr Glu Leu Thr Val Cys Arg Leu Leu Pro Glu Ser Pro
1               5                   10                  15
Arg Tyr Leu Ile Ser Lys Asp Arg His Glu Glu Ala Phe Asp Ile Leu
            20                  25                  30
Thr Lys Tyr His Ala Glu Gly Asp Arg Ser Ser Val Ile Val Arg Ala
        35                  40                  45
Glu Ile Ala Gln Ile Gln Arg Thr Ile Lys Leu Glu Leu Glu Glu Ala
    50                  55                  60
Lys Gln Thr Trp Trp Asp Met Phe Arg Thr Ala Gly Met Arg Arg Arg
65                  70                  75                  80
Leu Phe Ile Thr Ala Phe Leu Gly Leu Phe Thr Gln Trp Ser Gly Asn
                85                  90                  95
Thr Leu Ile Ser Phe Val Pro Leu Phe Cys Leu Leu Asp Met Phe Leu
            100                 105                 110
Leu Ile Asn Ala Arg Tyr Tyr Leu Ser Asp Leu Leu Asp Met Val Asn
        115                 120                 125
Ile Thr Asp Gly Val Val Lys Ser Lys Ile Asn Ile Gly Ile Ala Cys
    130                 135                 140
Trp Gly Leu Val Cys Gly Thr Thr Leu Ala Leu Thr Val Pro Arg Phe
145                 150                 155                 160
Lys Arg Arg Thr Met Tyr Ile Thr Cys Ala Cys Ser Leu Leu Cys Val
                165                 170                 175
Tyr Ile Ala Trp Thr Ile Ser Met Glu Arg Phe Leu Ala Thr His Ala
            180                 185                 190
Lys Ala Ala Ala Ile Leu Thr Ile Leu Phe Ile Phe Cys Tyr Ser Pro
        195                 200                 205
Ala Tyr Asn Leu Gly Tyr Asn Ala Leu Thr Tyr Ser Lys Pro Ser Pro
    210                 215                 220
Cys Ala Arg
225
```

<210> 30871
<211> 92
<212> PRT
<213> A.fumigatus

<400> 30871

```
Tyr Ile Pro Thr Asp Trp Ser Ala Tyr Leu Ile Glu Ile Phe Pro Tyr
1               5                   10                  15
Phe Gly Arg Ser Arg Gly Leu Ser Trp Phe Gln Phe Tyr Gly Arg Gly
```

```
            20                  25                  30
Ser Thr Phe Phe Ala Thr Tyr Val Asn Pro Val Gly Leu Lys Asn Ile
        35                  40                  45
Gly Trp Lys Trp Leu Leu Val Tyr Cys Cys Trp Leu Ala Phe Glu Leu
    50                  55                  60
Val Phe Ile Tyr Leu Phe Phe Pro Glu Thr Tyr Gly Arg Thr Leu Glu
65                  70                  75                  80
Glu Leu Ser Phe Ser Lys Phe His Leu Trp Gly Gly
                85                  90
```

<210> 30872
<211> 134
<212> PRT
<213> A.fumigatus

<400> 30872

```
Ile Ala Ala Ile Ala Tyr Phe Ala Ile Tyr Gly Pro Thr Asn Leu Ser
1               5                   10                  15
Met Ser Leu Thr Val Leu His Ser Asp Ser Ser Lys Asp Glu Thr Phe
            20                  25                  30
Leu Gly Phe Asp Gly Leu Cys Arg Arg Ala Ser Ser Ser Ile Ile Ile
        35                  40                  45
Ser Glu Ser Ile Pro Arg Ala Ser Ser Ser Thr Ser Gly Leu Thr Glu
    50                  55                  60
Val Ile Trp Ala Pro His Val Ser Ala Ile Met Asp Ala Ile Ser Ser
65                  70                  75                  80
Leu Tyr Ala Gly Val Ala Gly Val Ile Gly Ile Ala Thr Glu Ser Thr
                85                  90                  95
Val Ser Ala Ser Glu Ile Gly Val Ala Pro Asp Trp Pro Ile Ser Ser
            100                 105                 110
Leu His Ser Cys Ser Met Ser Ser Thr Val Ser His Ser Ser Arg Ala
        115                 120                 125
Asp Met Ser Ile Glu Val
    130
```

<210> 30873
<211> 714
<212> PRT
<213> A.fumigatus

<400> 30873

```
Arg Arg Ser Arg Lys Ser Trp Thr Phe Pro Arg Ala Tyr Gln Thr Lys
1               5                   10                  15
Ala Met Asp Pro Ile Leu Asp Gln Trp Thr Glu Val Ala Lys Thr Leu
            20                  25                  30
Glu Ile Ser Cys Pro Arg Ile Ser Ile Val Ser Asn Val Phe Gly Arg
        35                  40                  45
Leu Ile Arg Pro Gly Glu Arg Ala Phe Thr Phe Glu Tyr Phe Ala Met
    50                  55                  60
His Cys Arg Gln Thr Val Ala Phe Asn Ala Gly Ile Asp Glu Leu Ser
65                  70                  75                  80
Leu Ser Asp Met Glu Pro Glu Leu Ser Arg Trp Val Glu Ile Gly Pro
                85                  90                  95
His Pro Ser Leu Leu Pro Met Val Ser Thr Lys Leu Asp Arg Asp Ile
            100                 105                 110
Thr Asp Leu Leu Pro Ser Leu Arg Lys Gly Thr Pro Ala Ser Ala Ala
```

```
        115                 120                 125
Ile Ala Arg Leu Leu Cys His Phe Tyr Gln Thr Thr Thr Ala Leu Asn
    130                 135                 140
Trp Arg Lys Ala Phe Asp Glu Ala Ser Leu Thr Thr Leu Pro Ala Met
145                 150                 155                 160
Pro Phe Ser Gly Gln Glu Phe Gly Ile Tyr Tyr Pro His Glu Arg Thr
                165                 170                 175
Gln Lys Asn Leu Gly Glu Gly Asp Gln Asn Thr Glu Ser His Thr Gly
            180                 185                 190
His Thr Phe Leu Ser Arg Ile Ile Gln Arg Pro Ser Glu Ala Asn Arg
        195                 200                 205
Glu Ala Ile Phe Glu Thr Pro Ile Ala Val Phe Lys Asp Tyr Ile Leu
    210                 215                 220
Gly His Arg Val Cys Glu Ser Ala Leu Cys Pro Ala Ser Val Tyr His
225                 230                 235                 240
Glu Ile Val Leu Ala Ala Ser Lys Trp Ala Gln Leu Asp Gln Gly Glu
                245                 250                 255
Asp Val Ile Arg Thr Leu Ser Asn Val Leu Tyr Ser Ala Pro Leu Leu
            260                 265                 270
Tyr Ser Glu Asp Ser Ser Ala Ile Val Arg Val Ser Ile Lys Pro Ser
        275                 280                 285
Gly Asp His Lys Ala Gly Tyr Ser Phe Thr Val Ala Ser Tyr Asn Ala
    290                 295                 300
Gly Ser Asp Pro Gln Gln Gln Val Ile His Cys Gln Gly Gln Leu Lys
305                 310                 315                 320
Ile Arg Ser Thr Ala His Ala Gln Lys Tyr Ala Arg Leu Val Pro Leu
                325                 330                 335
Met Glu Arg Gln Arg Glu Arg Phe Gln Arg Ile Asp Gln Ser Ser Thr
            340                 345                 350
Gln Val Phe Leu Arg Lys Ala Met Tyr Glu Lys Val Phe Thr Arg Val
        355                 360                 365
Val Thr Tyr Ser Glu Leu Tyr Gln Met Val Gln Ser Val Arg Ile Asp
    370                 375                 380
Gln Gly Glu Ala Leu Ala Val Cys Arg Phe Pro Asn Ser Gln Arg Glu
385                 390                 395                 400
Pro Ser Gly Ala Ser Thr Val Leu Met Asp Val Leu Leu His Val Ala
                405                 410                 415
Gly Phe Val Ala Asn Leu Asn Ile Glu Asn Glu Glu Val Cys Ile Cys
            420                 425                 430
Lys Glu Val Lys Ser Ala Thr Met Thr Arg Gly Phe Pro Phe Ala Asp
        435                 440                 445
Thr Ala Phe Glu Val Tyr Cys Asn Asn Leu Glu Ile Ala Ala Ser Asn
    450                 455                 460
Val Val Ile Ala Asp Ala Tyr Ala Val Asp Ser Arg Gly Val Ile Ala
465                 470                 475                 480
Val Phe Lys Gly Met Val Phe Gln Arg Val Lys Leu Thr Arg Met Ala
                485                 490                 495
Gln Ala Leu Arg Met Thr Ala Val Arg Ser Gly His Thr His Gln Ser
            500                 505                 510
Val Pro Leu Lys Arg Ala Lys Leu Val Ala Pro Glu Thr Ser Ala Arg
        515                 520                 525
Asp Ser Lys Pro Pro Asp Leu Leu Ala Asp Lys Gln Arg Ala Ile Arg
    530                 535                 540
Glu Ile Ile Ala Asn Thr Cys Asn Leu Glu Ala Ser Ser Leu Ala Ala
545                 550                 555                 560
Asp Thr Ser Leu His Ala Ile Gly Phe Asp Ser Leu Met Met Ile Glu
```

```
                565                 570                 575
Leu Ser Ser Asn Leu Ser Ala Lys Leu His Thr Ser Ile Asp Ile Ser
            580                 585                 590
Ala Leu Glu Glu Cys Glu Thr Val Glu Asp Ile Glu Gln Leu Cys Ser
        595                 600                 605
Asp Asp Ile Gly Gln Ser Gly Ala Thr Pro Ile Ser Glu Ala Glu Thr
    610                 615                 620
Val Asp Ser Val Ala Met Pro Ile Thr Pro Ala Thr Pro Ala Tyr Lys
625                 630                 635                 640
Leu Leu Ile Ala Ser Ile Ile Ala Glu Thr Cys Gly Ala His Ile Thr
                645                 650                 655
Ser Val Lys Pro Asp Val Glu Leu Asp Ala Leu Gly Ile Asp Ser Leu
            660                 665                 670
Met Met Ile Glu Leu Glu Ala Arg Leu Gln Ser Pro Ser Asn Pro Lys
        675                 680                 685
Lys Val Ser Ser Leu Glu Leu Ser Glu Cys Arg Thr Val Arg Asp Ile
    690                 695                 700
Glu Arg Leu Val Gly Pro Tyr Ile Ala Lys
705                 710
```

<210> 30874
<211> 68
<212> PRT
<213> A.fumigatus

<400> 30874

```
Gly Ser Phe Leu Arg Gly Phe Trp Pro Leu Trp Glu Tyr Pro Ala Leu
1               5                   10                  15
Ile Gly Lys Leu Phe Tyr Ile Tyr His Ile Gly Gln Ser Ser Lys Ala
            20                  25                  30
Tyr Trp Val Pro Phe Gln His Gly Gly Leu Ser Ser Glu Tyr Val Ser
        35                  40                  45
Phe Tyr Leu Pro Gly Ser Tyr Leu Ile Ala Ala Cys Phe Arg Gly Lys
    50                  55                  60
Trp Pro Arg Asp
65
```

<210> 30875
<211> 118
<212> PRT
<213> A.fumigatus

<400> 30875

```
Cys Glu Arg Thr Asn Arg Lys Ile Pro Trp Arg Leu Ser Arg His Gln
1               5                   10                  15
Lys Ala Arg Gln Arg Lys Arg Leu Arg Ala Val Asp Arg Val Val Asp
            20                  25                  30
Thr Leu Ser Ala Ala Leu Arg Arg Asn Gly Gln Ser Thr Lys Ala Ile
        35                  40                  45
Asp Arg Trp Tyr Ala Glu Met Pro Arg Glu Glu Glu Met Leu Pro Lys
    50                  55                  60
Asp Lys Tyr Thr Leu Phe Asp Lys Lys Glu Lys Thr Tyr Arg Lys Gly
65                  70                  75                  80
Ile His Ser Thr Phe Val Ser Thr Leu Ser Leu Thr Cys Ser Gln Gly
                85                  90                  95
Gly Cys Met Arg Met Leu Thr Ile Phe Phe Lys Asn Cys Pro Ser Gly
```

```
            100                 105                 110
Gln Glu Ser Ala Ser Ala
        115

<210> 30876
<211> 110
<212> PRT
<213> A.fumigatus

<400> 30876
Arg Glu Phe Trp Cys His Phe Gln Arg Val Arg Gln Leu Trp Ala Trp
1               5                  10                  15
Thr Ala Ala Ala Ile Ala Ala Thr Glu Arg Gln Glu Arg Trp Ala Gly
            20                  25                  30
Pro Ala Pro Leu Phe Val Cys Thr Tyr Ser Lys Ile Thr Val Thr Met
        35                  40                  45
Arg Arg Gln Asp Ile Thr Asp Phe Ile Phe Ile Lys Thr Asn Met Leu
    50                  55                  60
Val Ser Cys His Ile Ile Tyr Met Met Ala Trp Asp Ser Ala Arg Lys
65                  70                  75                  80
Ile Ser Ser Ser Phe Ser Phe Val Trp Pro Lys Tyr Gln Glu Thr Val
                85                  90                  95
Cys Ser Tyr Ala Asp Ile Leu Leu Pro Ser Asp Val Leu Leu
            100                 105                 110

<210> 30877
<211> 150
<212> PRT
<213> A.fumigatus

<400> 30877
Arg Asp Gly Leu Ala Val Trp Asn Gln Val His Val Lys Asp Leu Ala
1               5                  10                  15
Arg Gly Tyr Leu Thr Leu Leu His Trp Leu Glu Gln Thr Ser Cys Glu
            20                  25                  30
Glu Val Ala Glu Asn Pro Tyr Phe Phe Cys Glu Asn Gly Glu Glu Leu
        35                  40                  45
Ser Trp Gly Gln Cys Ala Ala Glu Ile Gly Arg Ile Leu Tyr Lys Ala
    50                  55                  60
Gly Lys Val Ala Asp Pro Thr Pro Lys Thr Ile Pro Thr Glu Leu Tyr
65                  70                  75                  80
Asn Asp Leu Phe Gly Lys Tyr Ser Gly Leu Val Ile Gly Ser Asn Ala
                85                  90                  95
Arg His Arg Ala Asn Arg Leu Arg Lys Leu Gly Trp Glu Pro Arg Glu
            100                 105                 110
Lys Arg Thr Phe Ala Ser Leu Ala Glu Asp Glu Ile Pro Leu Ile Leu
        115                 120                 125
Gln Glu Thr Gly Glu Phe Thr Gly Tyr Ala Ala Pro Val Ala Ser Gly
    130                 135                 140
Lys Phe Glu Gly Lys Lys
145                 150

<210> 30878
<211> 313
<212> PRT
<213> A.fumigatus
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<220>
<221> UNSURE
<222> (270)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30878
Thr Ser Leu Asp Gly Asn Met His Glu Cys Leu Leu Ile Gln Pro Arg
1 5 10 15
Thr Leu Thr Arg Ser Thr Gly Ser Val Gly Leu Ile Asn Phe Glu Val
20 25 30
Ile Asn Pro Leu Tyr Ser Arg Cys Thr Arg Ala Leu Val Leu Trp Thr
35 40 45
Pro Thr Thr Glu Asn Ala Gly Thr Pro Glu Gln Arg Ile Lys Ala Ser
50 55 60
Ser His Ser Pro Val Leu Ala Leu Phe Ser Thr Arg Arg Ala Leu Val
65 70 75 80
Ser Arg Gln Thr Trp Arg Arg Asn Gln Ser Thr Lys His Ile Pro Gly
85 90 95
Thr Pro Asp Ala Glu Thr Ile Pro Ile Arg His Gln Gln Leu Leu Arg
100 105 110
Lys Leu Gly Trp Arg Leu Leu Pro Leu Cys Ala Leu Ile Tyr Leu Leu
115 120 125
Asn His Leu Asp Cys Ser Asn Ile Gly Asn Ala Lys Val Leu Asp Ala
130 135 140
Glu Thr Gly Glu Gln Thr Gly Met Thr Asp Thr Gly Tyr Ser Ile Thr
145 150 155 160
Leu Thr Gln Phe Ala Val Ala Tyr Ala Leu Phe Asp Val Pro Ser Asn
165 170 175
Trp Ile Leu Lys Arg Tyr Ala Arg Pro Ala Tyr Trp Leu Gly Thr Leu
180 185 190
Met Leu Cys Trp Gly Ala Val Thr Leu Gly Phe Ala Arg Val Asp Asn
195 200 205
Arg Phe Thr Val Met Val Leu Arg Val Val Ile Gly Val Leu Glu Ala
210 215 220
Gly Asn Leu Pro Trp Asn Gly Leu Pro His His Leu Leu Val Pro Thr
225 230 235 240
Gly Arg Ala Phe His Pro His Cys Leu His Ser Arg Asn Arg Ala Thr
245 250 255
Leu Ala Gly Ala Phe Gly Arg Cys Ile Ala Cys Gly Val Xaa Phe Leu
260 265 270
Asn Gly Lys Gly Gly Leu Glu Glu Phe Arg Trp Leu Phe Ile Ile Glu
275 280 285
Gly Gly Ser Thr Val Leu Ile Ala Pro Leu Val Phe Leu Gly Phe Cys
290 295 300
Leu Thr Thr His Pro Arg Arg Ser Gly
305 310

<210> 30879
<211> 444
<212> PRT
<213> A.fumigatus

<400> 30879
Leu Val Leu Thr Ile Ser Met His Tyr Cys Gln Ser Ser Ala Lys Val
1 5 10 15

```
Phe Gly Ala Lys Gly Glu Lys Arg Trp Arg His Ser Ala Lys Leu Leu
            20                  25                  30
Val Ser Ser Leu Ala Cys Ile Glu Ser Lys Gln Arg Ser Val Asn Met
        35                  40                  45
Ala Tyr Pro Phe Arg Arg Ala Gly Glu Lys Leu Lys Thr Val Ala Lys
    50                  55                  60
Met Asp Thr Trp Val Arg Asp Gln Ser Arg Glu Gln Ser Thr Thr Thr
65                  70                  75                  80
Lys Pro Pro Thr Arg Cys Tyr Leu Leu Glu Leu Pro Thr Glu Leu Leu
                85                  90                  95
Leu Glu Ile Ile Ser His Leu Ser Val Ile Pro Glu Thr Cys Leu Ala
            100                 105                 110
Leu Thr Cys Lys Arg Leu Phe Ala Ile Ser Gly Ala Ile Phe Thr Ser
        115                 120                 125
Val Arg Tyr Arg Asn Cys Leu Ile Ser Phe Ala His Gly Leu Lys Ser
    130                 135                 140
Thr Ser Leu Ile Trp Pro Ser Arg Phe Ser Gln Asp Phe Ala Pro Leu
145                 150                 155                 160
Phe His His Tyr Arg Asn Gly His Asn Phe Val Thr Thr Arg Trp Gln
                165                 170                 175
Leu Ile Ser Ile Leu Glu Asn Ser Arg Trp Trp Ala Cys Ser Lys Cys
            180                 185                 190
Leu Lys Leu His Pro Arg Asp Ala Phe Ser Ser Arg Glu Leu Lys Arg
        195                 200                 205
Lys Pro Glu Asp Arg Ala Cys Leu Leu Gly Asn Phe Ala Gly Ile Val
    210                 215                 220
Asp Leu Cys Pro Cys Lys Lys Leu Thr Phe Arg Asp Lys Met Asp Leu
225                 230                 235                 240
Val Glu Leu Leu Lys Val Arg Gln Arg Ser Val Ala Asp Leu Gln Ser
                245                 250                 255
Gln Phe Gly Ala Ser Ile Gln Gln Arg Phe Cys Trp His Ser Cys Thr
            260                 265                 270
Lys Asp Tyr Gly Pro Thr Gln Leu Gln Ile Glu Ile Tyr Pro Glu Leu
        275                 280                 285
Asp Asp Gln Asp Gln Leu Arg Ile Lys Thr Glu Tyr Arg Leu Thr Thr
    290                 295                 300
Glu Ser Gly Lys Leu Gly Lys Glu Glu Tyr Ile Thr Pro Arg Phe Gly
305                 310                 315                 320
Cys Ala His Arg Ser Val Asp Leu Trp Leu Ser Ser Val Cys Gln Thr
                325                 330                 335
Thr Val Cys Gln Ser Leu Asp Ser Ile Cys Ala Ser Cys Lys Arg Ile
            340                 345                 350
Ser Ile Cys Asn Ser Cys Lys Ser Val Leu Lys Cys Pro Arg Arg Gln
        355                 360                 365
Pro Ser Arg Val Asp Gln Asp Ser Gly Lys Ala Thr Tyr His Phe Trp
    370                 375                 380
Thr Glu Arg Cys Leu Gly Gly Thr Thr Ser Thr Pro Asp Gln Met Trp
385                 390                 395                 400
Ala Ser Gln Arg Ile His Pro Ala Glu Asn Ser Val Glu Val Asp Asn
                405                 410                 415
Cys Ser Glu Ala Cys Pro Trp Thr Val Arg Glu His Pro Pro Ser Val
            420                 425                 430
Phe Thr Thr Gly Leu Glu Gly Ser Thr Gly Ala Leu
        435                 440
```

<210> 30880

<211> 456
<212> PRT
<213> A.fumigatus

<400> 30880

```
Leu Leu Thr Trp Pro Ser Ser Ser Leu Leu Gly Tyr Ser Ala Ser Leu
1               5                  10                  15
Arg Phe Gln Pro Thr Lys Arg Pro Gln Leu Ala Ala Gln Lys Pro Lys
            20                  25                  30
Pro Lys Pro Ala Leu Pro Lys Ser Thr Pro Gly Ala Ala Ser Ala Pro
        35                  40                  45
Ala Pro Pro Val Lys Thr Thr Leu Ala Asp Trp Ala Ala Thr Glu Glu
    50                  55                  60
Asp Asp Val Asn Gly Phe Tyr Ile Gly Glu Lys Arg Gln Arg Gly Gly
65                  70                  75                  80
Arg Lys Lys Arg Lys Lys Asn Arg Glu Ala Gln Ala Phe Val Gln Asn
                85                  90                  95
Trp Asp Asp Ile Tyr Asp Pro Ser Arg Pro Asn Ile Tyr Glu Glu Tyr
            100                 105                 110
Lys His Ser Asp Glu Gln Ile Ala Glu Val Arg Glu Trp Lys Asp Arg
        115                 120                 125
Leu Tyr Ala His Arg Met Ala Arg Ser Pro Ser Arg Ser Ser His Ser
    130                 135                 140
Ala Asp Glu Ser Arg Pro Met Asn Ser Lys Leu Phe Phe Ala Trp Arg
145                 150                 155                 160
Ser Thr Val Lys Asn Ala His Glu Phe Phe Ala Glu Gln Phe Ala Pro
                165                 170                 175
Pro Gln Ser Phe Ala Pro Pro Pro Asn Leu Asn Asp Ile Pro Pro Ala
            180                 185                 190
Pro Leu Asp Glu Ala Thr Gly Asp Asp Ala Phe Ala Arg Arg Ala Arg
        195                 200                 205
Met Thr Ala Gly Gln Ser Asp Ala Leu Met Ser Gly Arg Thr Pro Pro
    210                 215                 220
Ala Pro Pro Pro Pro Pro Glu Glu Ala Pro Ala Pro Ile Pro Asp Asp
225                 230                 235                 240
Pro Thr Gly Glu Asp Ala Tyr Leu Arg Arg Val Gln Met Ala Ala Ala
                245                 250                 255
Ala Gln Pro Thr Leu Gln Ala Pro Thr Arg Pro Pro Pro Arg Pro Leu
            260                 265                 270
Asp Ala Leu Gln Pro Ala Ser Ala Thr Ile Ser Arg Ala Pro Val Arg
        275                 280                 285
Tyr Thr Leu Pro Pro Pro Pro Glu Asp Ile Pro Ala Thr Glu Ala Glu
    290                 295                 300
Leu Glu Glu Val Phe Ala Lys Glu Glu Pro Ala Gly Asp Ala Pro Asp
305                 310                 315                 320
Glu Glu Asp Gly Gln Arg Ser Leu Arg Pro Gly Gln Lys Gly Phe Ala
                325                 330                 335
Glu Arg Leu Leu Ala Lys Tyr Gly Trp Thr Lys Gly Ser Gly Leu Gly
            340                 345                 350
Ala Thr Gly Ser Gly Ile Val Lys Pro Leu Gln Val Lys Val Glu Lys
        355                 360                 365
Gln Lys Lys Arg Pro Asp Ser Glu Gly Gly Gly Phe Val Thr Pro Ala
    370                 375                 380
Gly Arg Gly Lys Ile Ile Gly Gly Lys Arg Lys Ala Glu Glu Glu Glu
385                 390                 395                 400
Gly Lys Phe Gly Arg Met Ser Glu Val Ile Ile Leu Lys Gly Met Leu
```

```
                405                 410                 415
Asp Gly Met Asp Val Asp Ala Glu Leu Glu Gly Asp Gln Asp Gly Gly
            420                 425                 430
Leu Ile Gln Glu Ile Gly Glu Glu Cys Ser Glu Lys Val Arg Phe Ser
        435                 440                 445
Ile His Asp Trp Val Ala Thr Ile
    450                 455
```

<210> 30881
<211> 110
<212> PRT
<213> A.fumigatus

<400> 30881

```
Ser Lys Arg Leu Val Arg Asn Ala Gln Lys Arg Cys Ala Ser Leu Ser
1               5                   10                  15
Met Thr Gly Leu Leu Pro Ser Asn Thr Asp Gln Tyr Gly Arg Val Glu
            20                  25                  30
Arg Val Phe Ile Ser Arg Glu Ser Gly Pro Pro Val Pro Val Phe Val
        35                  40                  45
Lys Phe Thr Asn Gln Leu Ser Ala Leu Arg Val Ser Ile Ser Glu Phe
    50                  55                  60
Arg Ser His Pro Ser Leu Asp Thr Asp Lys Ile Cys Gln Ala Val Asn
65                  70                  75                  80
Ala Leu Glu Gly Arg Val Phe Asn Gly Asn Thr Ile Thr Ala Arg Phe
                85                  90                  95
Tyr Asp Thr Gln Lys Phe Glu Glu Gly Ile Tyr Asp Asp Arg
            100                 105                 110
```

<210> 30882
<211> 170
<212> PRT
<213> A.fumigatus

<400> 30882

```
Ser Pro Ser Ser Ser Ala Ser Thr Ser Ile Pro Ser Ser Ile Pro Leu
1               5                   10                  15
Arg Met Met Thr Ser Leu Ile Arg Pro Asn Leu Pro Ser Ser Ser Ser
            20                  25                  30
Ala Phe Leu Leu Pro Pro Met Ile Leu Pro Leu Pro Ala Gly Val Thr
        35                  40                  45
Lys Pro Pro Pro Ser Glu Ser Gly Arg Phe Phe Cys Phe Ser Thr Leu
    50                  55                  60
Thr Cys Asn Gly Leu Thr Ile Pro Asp Pro Val Ala Pro Lys Pro Asp
65                  70                  75                  80
Pro Leu Val His Pro Tyr Phe Ala Ser Asn Leu Ser Ala Asn Pro Phe
                85                  90                  95
Cys Pro Gly Arg Ser Glu Arg Trp Pro Ser Ser Ser Ser Gly Ala Ser
            100                 105                 110
Pro Ala Gly Ser Ser Phe Ala Lys Thr Ser Ser Ser Ser Ala Ser Val
        115                 120                 125
Ala Gly Ile Ser Ser Gly Gly Gly Gly Arg Val Tyr Arg Thr Gly Ala
    130                 135                 140
Arg Glu Ile Val Ala Glu Ala Gly Cys Ser Ala Ser Lys Gly Arg Gly
145                 150                 155                 160
Gly Gly Arg Val Gly Ala Cys Ser Val Gly
```

165 170

<210> 30883
<211> 527
<212> PRT
<213> A.fumigatus

<400> 30883

```
Ala Gly Asn Ile Ile Ile Asn Leu Ile Asp Leu Leu Leu Trp Leu Leu
1               5                  10                  15
Cys Pro Asn Ser Cys Asn Glu Ile Ala Ser Gly Arg Lys Gly Arg Ala
            20                  25                  30
Ala Pro Leu Glu Val Tyr Asn Ile Leu Leu Tyr Leu Gln Arg Asp Leu
        35                  40                  45
Leu Leu Leu Ile Leu Leu Pro Ser Leu His Ser Val Met Ala Ala Gln
    50                  55                  60
Thr Arg Ser Leu Asp Gln Leu Val Lys Gly Ser Pro Ala Pro Gly Ser
65                  70                  75                  80
Leu Pro Glu Ser Leu Ser Arg Pro Ser Gly Gln Leu Asn Thr Leu Gln
                85                  90                  95
Pro Pro Phe Ser Gln Asp Ala Ser Asp Pro Ser Ser Pro Pro Arg Ser
            100                 105                 110
Ser Thr Pro Asp Leu Leu Ser Thr Leu Pro Ser Ser Pro Pro Gln Ile
        115                 120                 125
Tyr Leu Asn Leu Leu Ile Leu Glu Ser Ser Leu Arg Ala Gln Tyr Leu
    130                 135                 140
Ala Leu Arg Glu Arg Arg Arg Gln Asn Thr Phe Phe Leu Leu Leu Leu
145                 150                 155                 160
Ala Ala Trp Ile Ala Tyr Phe Ala Tyr Ala Leu Phe Leu Arg Pro Arg
                165                 170                 175
Glu Asp Gly Ser Gly Val Gly Gly Ser Ile Tyr Trp Met Val Glu Met
            180                 185                 190
Gly Glu Lys Val Ala Leu Leu Gly Gly Ile Val Thr Ala Leu Leu Val
        195                 200                 205
Trp Gly Thr Gly Gln Trp Glu Arg Gly Val Arg Trp Pro Arg Arg Trp
    210                 215                 220
Leu Ala Val Ala Asn Arg Gly Leu Arg Thr Met Asn Thr Lys Ile Val
225                 230                 235                 240
Ile Ile Arg Gly Pro Trp Trp Gln Glu Leu Leu Ser Tyr Leu Ser Phe
                245                 250                 255
Leu Phe Pro Phe Thr Leu Pro Phe Phe Pro Ala Pro Thr Gly Asn Phe
            260                 265                 270
His Tyr Ile Glu Arg Pro Ser Ser Asp Lys Arg Gly Ser Arg Gln His
        275                 280                 285
Tyr Gln Gln Tyr Tyr Asn Asn Val Asp Ser Glu Ser Gly Leu Val Glu
    290                 295                 300
Glu Asp Leu Ser Pro Gly Gly Asp Tyr Ile Arg Leu Leu Leu Leu Pro
305                 310                 315                 320
Lys Ser Phe Ser Pro Glu Phe Arg Glu Asn Trp Asp Asp Tyr Arg Thr
                325                 330                 335
Glu Phe Trp Glu Lys Glu Asn Glu Arg Arg Ala Gln Leu Arg Gln Lys
            340                 345                 350
Leu Arg Gln Lys Glu Arg Gln Leu Ala Arg Gln Glu Gly Gly Trp Phe
        355                 360                 365
Trp Trp Leu Gly Leu Gly Leu Gly Trp Lys Ala Ser Gln Arg Arg Arg
    370                 375                 380
```

```
Leu Val Ala Ala Thr Leu Lys Ser Ser Asp Gly Asp Lys His Arg His
385                 390                 395                 400
His His His His Leu Ser Ser Ile Ser Lys His Ala His Asp Leu Lys
                405                 410                 415
Ser Pro Thr Arg Arg Gly Pro Arg Ser Glu Ser His Ser Arg Thr Pro
            420                 425                 430
Ser Arg Ser Thr Thr Pro Val Asp Ile Asp Asp Arg Pro Pro Ser Arg
        435                 440                 445
Ser Ser Ala Ser Ser Arg Pro Arg Arg Gly Ser Thr Thr Pro Ser Ser
    450                 455                 460
Thr Ala Ser Glu Gln Ser Met Gln Leu Arg Lys Lys Lys Gly Thr Lys
465                 470                 475                 480
Ser Leu Ser Arg Gly Leu Ser Pro Leu Thr Gln Ala Gln Ile Arg Glu
                485                 490                 495
Gly Ile Tyr Asn Thr Ser Ser Leu Ser Ser Asp Asp Ser Phe Leu Gly
            500                 505                 510
Glu Ser Arg Glu Thr Thr Gln Ser Arg Glu Ala Ser Pro Ser Val
        515                 520                 525
```

<210> 30884
<211> 135
<212> PRT
<213> A.fumigatus

<400> 30884

```
Thr Pro Arg Ser Ser Ser Ser Gly Ala Pro Gly Gly Arg Asn Cys Cys
1               5                   10                  15
Pro Thr Phe Pro Phe Ser Ser His Ser Pro Tyr Leu Ser Ser Leu Leu
            20                  25                  30
Gln Pro Gly Ile Ser Thr Thr Ser Ser Ala Arg Arg Arg Thr Ser Val
        35                  40                  45
Val Val Gly Ser Thr Thr Ser Ser Thr Thr Thr Thr Ser Thr Ala Asn
    50                  55                  60
Arg Ala Leu Trp Arg Lys Ile Ser Ala Pro Glu Val Ile Thr Ser Val
65                  70                  75                  80
Ser Phe Phe Ser Pro Asn Pro Ser Arg Pro Asn Ser Ala Arg Thr Gly
                85                  90                  95
Met Ile Thr Glu Pro Ser Ser Gly Lys Arg Arg Thr Ser Asp Ala Leu
            100                 105                 110
Ser Cys Ala Arg Ser Cys Ala Arg Arg Ser Ala Asn Ser Leu Asp Lys
        115                 120                 125
Lys Val Ala Gly Ser Gly Gly
    130                 135
```

<210> 30885
<211> 124
<212> PRT
<213> A.fumigatus

<400> 30885

```
Tyr Cys Ala Ala Leu Pro Pro Arg Gly Glu Asp Val Ile Asp Thr Asp
1               5                   10                  15
Asp Met Gly Phe Gly Asp Gln Arg Lys Leu Pro Asn Gly Pro Glu Ser
            20                  25                  30
Ala Ala Thr Leu Thr Val Pro Ala Gly Gly Ser Pro Asp Arg Ile Gly
        35                  40                  45
```

```
Gly Ser Trp Gln Leu Arg Arg Ile Ser Ser Val Val Val Asn Gly Asn
    50                  55                  60
Thr Ser Asn Val Glu Thr Leu Tyr Gln Arg Asp Thr His Lys Ser Ile
65                  70                  75                  80
Ile Leu Ser Thr Pro Leu Leu Leu Thr Leu Glu Lys Gly Ser His Asn
                85                  90                  95
Thr Ile Thr Val Gly Gly Leu Tyr Asn Gly Phe Asp Tyr Lys Gly Ala
            100                 105                 110
Asp Leu Asp Lys Ile Val Val Tyr Pro Pro Glu Pro
        115                 120
```

<210> 30886
<211> 265
<212> PRT
<213> A.fumigatus

<400> 30886

```
Asn His Ile His Ala Ile Ala Ile Arg Pro Pro His His Pro Arg His
1               5                   10                  15
Tyr Phe His Gln Leu Pro Ala Ser Lys Met Gly Glu Arg Ile Tyr Glu
            20                  25                  30
Leu Asp Arg Gln Gly Asp Ile Thr Phe Val Val Tyr Asp Val Pro Asp
        35                  40                  45
Ser Leu Pro Gln Thr Leu Asp Gln Leu Gln Pro Phe Leu Leu Asp Gly
    50                  55                  60
Ser Thr Pro Val Ile Thr Ser Pro Ala Ala Ala Ala Ala Ala Ala Glu
65                  70                  75                  80
Glu Glu Gln Thr Thr Glu Asn Glu Gln Pro Gln Ala Val Leu Lys Ile
                85                  90                  95
Arg Ala Ser Ser Lys His Leu Ser Leu Ala Cys Pro Gln Phe Thr Arg
            100                 105                 110
Thr Leu His Ser Gly Phe Gln Glu Ser His Ser Leu His Glu Lys Gly
        115                 120                 125
His Leu Thr Leu Glu Ile Asp Asn Trp Asp Pro Ala Ala Phe Leu Val
    130                 135                 140
Leu Met Leu Ile Leu His Gly Arg Thr Arg Pro Val Pro Arg Arg Leu
145                 150                 155                 160
Ser Leu Ser Lys Leu Val Asp Phe Ala Ile Leu Val Asp Tyr Tyr Glu
                165                 170                 175
Cys Tyr Glu Ala Val Glu Val Phe Thr Asp Met Trp Ile Thr Ala Leu
            180                 185                 190
Lys Lys Pro Ser Pro Ala Met Arg Leu Thr Ser Leu Ala Gln Ala Glu
        195                 200                 205
Glu Trp Leu Phe Ile Ser Trp Val Phe Gln His Gln Gln Met Phe Ala
    210                 215                 220
Gln Ala Gly Gly Tyr Leu Leu Arg Thr Leu Thr Gly Arg Phe Cys Ser
225                 230                 235                 240
Glu Leu Pro Val Pro Arg Arg Val Cys Gly Ile Val Phe Glu Phe Phe
                245                 250                 255
Leu Ser Ala Gly Ser Trp Ala Gly Ser
            260                 265
```

<210> 30887
<211> 61
<212> PRT
<213> A.fumigatus

<400> 30887
Ser Pro Pro Leu Gln Gln Gln Gln Gln Gln Lys Lys Asn Lys Pro
1 5 10 15
Leu Arg Thr Asn Asn Pro Lys Gln Ser Leu Lys Ser Ala Pro Pro Pro
20 25 30
Ser Thr Ser Ala Leu Arg Ala Pro Asn Ser Pro Ala Pro Cys Thr Ala
35 40 45
Ala Ser Arg Asn Pro Thr Pro Ser Met Lys Lys Ala Ile
50 55 60

<210> 30888
<211> 630
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (606)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30888
Lys Leu Thr Ser Ala Ser Lys Lys Leu Gln Lys Ile Ala Ala Pro Phe
1 5 10 15
Pro Arg Pro Tyr Thr Ser Gly Lys Ser Pro Val Pro Phe Thr Ala Gly
20 25 30
Thr Lys Gly Lys Glu Lys Gly Ala His Thr Arg His Asn Ala Asn Asp
35 40 45
Leu Ile Ser Ile Thr Arg Glu Ser Asp Thr Trp Asp Glu Trp Gly His
50 55 60
Val Arg Leu Ile Tyr Tyr Pro Ser Ala Pro Ala Glu Pro Ala Lys Leu
65 70 75 80
Ala Ser Glu Asn Ala Gln Gly Gly Leu Leu Ser Gln Pro Pro Thr Thr
85 90 95
Pro Thr Pro Leu Arg Arg Ser His Thr His Pro Thr Pro Gln Leu Gly
100 105 110
Arg Thr Pro Val Val Glu Asp Ser Pro Gly Ser Ile Thr Asn Ser Pro
115 120 125
Ser Gly Lys Pro Glu Glu Ala Leu Arg Gly Gly Lys Val Leu Asp Ile
130 135 140
Pro Tyr Ser Arg Val Ser Ala Ser Lys Ala Glu Asp Leu Leu Ala Gly
145 150 155 160
His Leu Asp Glu Leu Pro Asp Glu Ser Lys Tyr Glu Leu Leu His Arg
165 170 175
Ile Arg Thr Ala Gln Gly Val Ala Ser Ser Asn Phe Thr Arg Glu Gln
180 185 190
Ile Leu Ala Ile Arg Ile Leu Ala Ile Thr Asn Leu Ala Tyr Val Tyr
195 200 205
Pro Glu Ser Leu Phe Gln Gln Arg Ile Leu Gln Tyr Asp Asn Glu Gln
210 215 220
Pro Lys Arg Leu Gln Leu Ala Tyr Gln Leu Gly Glu Leu Val His Leu
225 230 235 240
Gly Ala Ser Gly Asp Leu Pro Val Ser Arg Thr Leu Gln Thr Leu Ala
245 250 255
Leu Asn Ala Leu Asp Ala Leu Ala Lys His Lys Ser Arg Ala Ile Asp
260 265 270

```
Val Cys Ala Ala Leu Ser Val Asn Val Asn His Gly Val Leu Met Phe
        275                 280                 285
Leu Thr Arg Lys Ala Val Asn Glu Leu Ala Ser Asp Glu Arg Asp Lys
    290                 295                 300
Asp Glu Ala Tyr Gln Asp Glu Trp Arg Asp Ala Leu Leu Ala Leu Leu
305                 310                 315                 320
Arg Thr Leu Pro Gly Ser Ser Thr Arg Thr Pro Glu Thr Leu Val Ser
                325                 330                 335
Ala Gly Leu Ile Pro Met Phe Val Asp Ile Leu Asn Leu Arg Thr Glu
            340                 345                 350
Lys Ala Arg Arg Val Tyr Ser Arg Val Met Glu Phe Leu Asp Thr Phe
        355                 360                 365
Val His Ala Val Arg Asp Ala Leu Ala Thr Leu Thr Asn Ala Lys Gly
    370                 375                 380
Phe Asp Ala Ile Ser Asp Leu Ile Asp Tyr Glu Thr Lys Thr Ser Phe
385                 390                 395                 400
Glu Asn Val Ser Arg Gly Ala Gly Leu Pro Pro Gln His Lys Thr Pro
                405                 410                 415
Ser Ile Asp Tyr Gln Ile Pro Tyr Phe Gln Gln Gln Thr Leu Arg Trp
            420                 425                 430
Met Phe Arg Phe Val Asn His Ile Met Gln His Asn Gly Gly Gly Phe
        435                 440                 445
Asp Arg Val Leu Arg Asn Leu Ile Asp Ser Pro Gln Leu Leu Thr Ser
    450                 455                 460
Leu Arg Leu Val Phe Glu Asn Ala Arg Val Phe Gly Ser His Val Trp
465                 470                 475                 480
Ser Asn Ala Val Asn Ile Leu Ser Ser Phe Ile His Asn Glu Pro Thr
                485                 490                 495
Ser Tyr Ala Val Ile Ala Glu Ala Gly Leu Ser Lys Ser Phe Leu Glu
            500                 505                 510
Ala Val Thr Ser Ser Glu Leu Lys Ala Pro Glu Lys Pro Pro Val Val
        515                 520                 525
Glu Thr Glu Ser Ala Ala Pro Glu Thr Gln Pro Gly Asp Gln Pro Thr
    530                 535                 540
Pro Leu Pro Ser Asp Ala Val Ser Ser Pro Ser Pro His Gly Glu Gln
545                 550                 555                 560
Lys Asp Arg Glu Tyr Asn Met Ala Arg Ser Lys Asp Ala Arg Leu Ala
                565                 570                 575
Pro Gly Ile Met Pro Ala Ala Glu Ala Leu Ser Cys Ile Pro Ser Ala
            580                 585                 590
Phe Gly Ala Ile Cys Leu Asn Ser Ser Gly Leu Glu Leu Xaa Pro Gly
        595                 600                 605
Phe Pro Phe Phe Pro Gly Lys Asn Ala Leu Glu Ser Phe Phe Glu Ile
    610                 615                 620
Phe Glu Asn Pro Gln His
625                 630
```

<210> 30889
<211> 780
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (754)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30889

```
Asp Lys Ser Thr Ser Ile Met Pro Lys Asn Arg Pro Ala Thr Ser Gly
1               5                  10                  15
Tyr Ala Arg Leu Ala Gln Glu Glu Glu Asp Arg Ser Asn Asp Ala Tyr
            20                  25                  30
Tyr Tyr Ser Glu Asp Glu Asp Asp Leu His Gly Pro Ser Gly Thr Ile
        35                  40                  45
Ser Gln Ser Ala Ser Arg Tyr Ala Pro Ile Ser Ala Arg Ala Gln Met
    50                  55                  60
Thr Pro Ala Phe Ser Ser Pro Pro Gly His Arg Arg Arg Ser Ser Gly
65                  70                  75                  80
His Tyr Pro Arg Gly Arg Arg Asn Ser Gly Val Tyr Ile Lys Ala Ile
                85                  90                  95
Asn Ala Arg Leu Glu Arg Trp Ala Glu Asp Phe Ala Ser Lys Phe Lys
            100                 105                 110
Ile Asn Arg Val Lys Gly Lys Thr Leu Glu Gln Glu Lys Leu Glu Ile
        115                 120                 125
Tyr His Ser Val Phe Gln Pro Pro Asp Gly Val Arg Pro Ile Ser Ala
    130                 135                 140
Glu Ala Leu Glu Ser Glu Glu Val Glu Arg Ala Gln Arg Gln Ala Arg
145                 150                 155                 160
Glu Glu Phe Glu Ala Val Val Glu Ser Val Arg Thr Ala Ile Glu Leu
                165                 170                 175
Gly Val His Pro Arg Met Ile Ser Gln Gly Ser Ser Gly Ser Tyr Phe
            180                 185                 190
Ala Arg Asn Ser Glu Gly Lys Ile Val Gly Val Phe Lys Pro Lys Asp
        195                 200                 205
Glu Glu Pro Tyr Ala Ser Arg Asn Pro Lys Trp Thr Lys Trp Leu His
    210                 215                 220
Arg Asn Leu Phe Pro Cys Phe Phe Gly Arg Ala Cys Leu Ile Pro Asn
225                 230                 235                 240
Leu Ser Tyr Val Ser Glu Ala Ala Ala Tyr Val Leu Asp Ser Arg Leu
                245                 250                 255
Arg Thr Asn Leu Val Pro Tyr Thr Asp Ile Val Tyr Leu Ser Ser Lys
            260                 265                 270
Ser Phe Tyr Tyr Asp Phe Trp Asp Arg Arg Lys Ala Trp Met Gly Lys
        275                 280                 285
Lys Pro Leu Pro Pro Lys Ala Gly Ser Phe Gln Val Phe Leu Lys Gly
    290                 295                 300
Tyr Lys Asp Ala Asn Leu Phe Leu Arg Asp His Pro Trp Pro Glu Gln
305                 310                 315                 320
Thr Asn Thr Gly Phe Arg Ala Glu Asp Ala Pro Lys Arg Lys Lys Arg
                325                 330                 335
Pro Trp Asn Glu Ala Cys Arg Pro Ser Gly Ile His Ser Asp Asp Glu
            340                 345                 350
Asp Glu Asp Asp Glu Asn Asn Tyr Ala Ser Ser Pro Ala Pro Arg Asp
        355                 360                 365
Glu Ser Gly Glu Arg Arg Phe Tyr Trp Thr Glu Gln Leu Lys Gln Ser
    370                 375                 380
Phe Arg Glu Glu Leu Glu Lys Leu Val Ile Leu Asp Tyr Ile Met Arg
385                 390                 395                 400
Asn Thr Asp Arg Gly Leu Asp Asn Trp Met Ile Lys Ile Asp Trp Lys
                405                 410                 415
Thr Glu Asp Val Ser Ile Val Ala Glu Pro Pro Lys Ser Asn Gly Arg
            420                 425                 430
```

```
Gln Gln Asp Asp Asp Asp Asp Glu His Met Pro Pro Ala Arg Pro Val
        435                 440                 445
Ser Thr Ser Pro Gly Arg Thr Gly Thr Ala Ser Ala Ser Tyr Pro Tyr
    450                 455                 460
Arg Arg His Glu Thr Met Val Ala Val Ser Arg Thr Gly Thr Pro Leu
465                 470                 475                 480
Asn Ser Thr Glu Pro Gln Ala Thr Ile Gln Ile Gly Ala Ile Asp Asn
                485                 490                 495
Ser Leu Ser Trp Pro Trp Lys His Pro Asp Ala Val Ser Tyr Ile Val
            500                 505                 510
Phe Pro Arg Leu Gln Leu Arg Phe Ala Asn Leu Thr Gln Trp Arg Ser
        515                 520                 525
Phe Pro Phe Gly Trp Leu Phe Leu Pro Val Ser Leu Ile Gly Gln Pro
    530                 535                 540
Phe Ser Gln Lys Thr Arg Asp His Phe Leu Pro Leu Leu Thr Ser Thr
545                 550                 555                 560
Ala Trp Trp Ser Gly Thr Gln Met Ala Leu Arg Arg Val Phe Ser Gln
                565                 570                 575
Asp Ala Asp Phe Lys Glu Ser Met Phe Ala Arg Gln Ile Ala Val Met
            580                 585                 590
Lys Gly Gln Ala Trp Asn Val Val Glu Thr Leu Lys His Pro Asp His
        595                 600                 605
Gly Pro Leu Glu Leu Thr Arg Arg Thr Arg Val Cys Val Trp Asp Asp
    610                 615                 620
Leu Val Asp Val Pro Val Ala Ile Pro Leu Arg Gly Gln Pro Ser Thr
625                 630                 635                 640
Asp Ala Gln Lys Arg Lys Met Arg Arg Tyr Asp Ser Asp Asp Arg His
                645                 650                 655
Asp Asp Tyr Asp Pro Asp Asn Glu Glu Met Asp Ile Gly Ala Ala Met
            660                 665                 670
Ser Leu Pro Ser Gln Pro Gln His Asp Leu Leu Gly Leu His Ser Pro
        675                 680                 685
Pro Ser Glu Leu Pro Asn Pro Asn Arg Phe Glu Leu Ser Arg Gly Arg
    690                 695                 700
Glu His Glu Glu Gly Pro Thr Gln Asp Arg Ser Pro Val Thr Leu Gly
705                 710                 715                 720
Arg Asp Ser Val Asp Gly Leu Gly Leu Gly Arg Asp Thr Asp Arg Asn
                725                 730                 735
Trp Ala Pro Leu Pro Ser Arg Pro Asp His Lys Arg His Arg Lys Gln
            740                 745                 750
Ser Xaa Met Ser Ser Ala His Gly His Ala Gln Phe Val Leu Gly Ser
        755                 760                 765
Asp His Leu Gln Arg Pro Pro Arg Leu Cys Asn Cys
    770                 775                 780

<210> 30890
<211> 68
<212> PRT
<213> A.fumigatus

<400> 30890
Lys Asn Gln Lys Leu Asp Ser Arg Gly Ile Glu Pro Arg Thr Ser Arg
1               5                   10                  15
Asn Leu Gly Leu Lys Thr Cys Ile Tyr Lys Cys Lys Ala Ser Ala Thr
            20                  25                  30
Thr Thr Glu Leu Gln Ala His Ser Leu Val Lys Phe Thr Ile Asn Ile
```

```
        35                  40                  45
Leu Cys Ser Gly Lys Thr Val Asp Gly Cys Ser Leu Ile Ser Gly Arg
    50                  55                  60
Trp Ile Thr Gly
65
```

<210> 30891
<211> 60
<212> PRT
<213> A.fumigatus

<400> 30891

```
Arg Gln Gln Leu Arg Thr Ser Tyr Leu Arg Asn Ser His His Val Glu
1               5                   10                  15
Gly Lys Ala Lys Val Gly Ile Ser Asp Ala Ala Leu Cys Gly Ser Ala
            20                  25                  30
Glu Tyr Gly Glu Arg Cys Leu Phe Val Leu Tyr Ala Gly Val Ile Ile
        35                  40                  45
Leu Phe Pro Lys Lys Leu Ser Gln Thr Gln Glu Ser
    50                  55                  60
```

<210> 30892
<211> 135
<212> PRT
<213> A.fumigatus

<400> 30892

```
Ser Leu Leu His Tyr Ser Ile His Ser Phe Ile His Ser Phe Ile Leu
1               5                   10                  15
Ser His Ser Leu Thr Met Arg Tyr Thr Ser Leu Phe Thr Ala Val Thr
            20                  25                  30
Ala Ala Leu Ala Ser Thr Ala Ala Ala Val Gly Val Ser Gly Ala Ala
        35                  40                  45
Glu Gly Phe Ala Lys Gly Val Thr Gly Gly Gly Asn Ala Ser Pro Val
    50                  55                  60
Tyr Pro Lys Thr Asn Asp Glu Leu Val Ser Tyr Leu Gly Asp Arg Gln
65                  70                  75                  80
Asp Arg Val Ile Val Leu Thr Lys Thr Tyr Leu Thr Leu Ser Pro His
                85                  90                  95
Arg Met Lys Met Asn Gly Lys Thr Leu Thr Cys Gly His Ser Phe Asp
            100                 105                 110
Phe Arg Gly Thr Glu Gly Tyr Thr Ser Gly Thr Gly Cys Ala Thr Trp
        115                 120                 125
Gly Ile Asn Ala Arg Met Ser
    130                 135
```

<210> 30893
<211> 209
<212> PRT
<213> A.fumigatus

<400> 30893

```
Val Arg Ser Thr Pro Ser His Glu Arg Gly Ser Lys Leu Thr Glu Val
1               5                   10                  15
Asp Gly Gly Ala Val Arg Gly Tyr Ser Met Leu Ile Ile Leu Gln Glu
            20                  25                  30
```

```
Leu Met Tyr Arg Ile Tyr Val Glu Thr Glu Gly Lys Pro Pro Arg Arg
        35                  40                  45
Asp Gln Ile Pro Lys Pro Cys Asp His Phe Asp Leu Ile Val Gly Thr
    50                  55                  60
Gly Thr Gly Gly Leu Ile Ala Leu Met Leu Gly Arg Leu Arg Leu Asp
65                  70                  75                  80
Leu Glu Thr Cys Lys Glu Val Tyr Val Arg Met Thr Arg Arg Val Phe
                85                  90                  95
Glu Thr Asp Lys Thr Ile Ala Gly Ile Pro Tyr Arg Ser Thr Leu Phe
            100                 105                 110
Lys Ala Ser Lys Leu Glu Glu Ala Ile Arg Glu Cys Val Arg Glu His
        115                 120                 125
Thr Val Phe Glu Ala Glu Gly Asn Asp Met Pro Asn Ala Ser Ser Arg
    130                 135                 140
Asn Ser Ile Ala Ser Ala Pro Tyr Ser Pro Ala Ala Ile Pro Gln Arg
145                 150                 155                 160
Ser Val Ser Arg Gly Ser Phe Ser Thr Ser Gly Ala Ser His Pro Ser
                165                 170                 175
Thr Pro Ile Ser Gln Arg His Ser Ala Ile Ile Asn Gly Leu Arg Trp
            180                 185                 190
Gly Asn Pro Asp Ala Leu Leu Tyr Asp Asn Arg Glu Asn Arg Thr Lys
        195                 200                 205
Thr
```

Sequence Listing - 2/3/2010 3:45:30 PM

<210> 30894
<211> 157
<212> PRT
<213> A.fumigatus

<400> 30894

```
Ile Val Leu Thr Gly Phe Ser Ala Val Thr Ala Leu Tyr Lys Gly Thr
1               5                   10                  15
Pro Arg Asn Gly Ser Ala Val Leu Leu Arg Ser Tyr Asp Ser Arg Lys
            20                  25                  30
Glu Pro Pro Pro Glu Phe Asn Cys Thr Ile Trp Gln Ala Gly Arg Ala
        35                  40                  45
Thr Ser Ala Thr Gly Leu Ala Phe Lys Pro Ile Gln Ile Gly Gln His
    50                  55                  60
Val Phe Ile Asp Glu Gly Ala Gly Thr Tyr Asn Pro Ala Pro Gln Val
65                  70                  75                  80
Leu Asp Glu Ala Ala Val Asn Glu Trp Ala Trp Ala Gly Asn Arg Gly
                85                  90                  95
Val Tyr Gln Arg Gly Tyr Arg Ala Ser Val Arg Arg Ala Pro Thr Val
            100                 105                 110
Gly Ser Met Ser Gly Gly Lys Lys Tyr Phe Gly Gly Cys Ser Arg His
        115                 120                 125
Ile Cys Pro Gly Pro Asp Glu Arg Leu Ile Pro Gln Glu Ser Glu Gly
    130                 135                 140
Gly Phe Ala Pro Lys Gly Lys Lys Asn Phe Pro Asn Phe
145                 150                 155
```

<210> 30895
<211> 166
<212> PRT
<213> A.fumigatus

<400> 30895
Leu Ser Ser Val Ile Ile Arg Leu Thr Ser Ser Asn Ser Pro Gln Ala
1 5 10 15
Ala Lys Ser Ala Val Arg Ala Leu Ala Asp Thr Leu Arg Leu Glu Val
20 25 30
Leu Arg His Asn Ser Ala Arg Thr Thr Tyr Thr Ile His Ile Ala Phe
35 40 45
Pro Ala Asp Phe Ile Ser Pro Gly Phe Val Leu Glu Gln Asp Thr Lys
50 55 60
Pro Asp Leu Thr Lys Arg Ile Gln Gly Thr Asn Val Ala Thr Phe Ala
65 70 75 80
Gln Leu Glu Glu Lys Phe Pro Ser Ser Glu Lys Val Ala Gln Gly Ile
85 90 95
Val Ala Arg Val Asp Arg Gly Asp Phe Ile Ile Cys Glu Asp Ser Leu
100 105 110
Ala Ala Ser Leu Leu Phe Thr Asn Met Val Gly Leu Ser Pro Lys Arg
115 120 125
Gly Leu Gly Ile Val Asp Ser Leu Trp Ser Val Val Met Gly Trp Phe
130 135 140
Val Val Pro Val Leu Arg Arg Arg Trp Glu Lys Met Cys Arg Glu Asp
145 150 155 160
Ala Ile Asn Arg Leu Arg
165

<210> 30896
<211> 115
<212> PRT
<213> A.fumigatus

<400> 30896
His His Pro Thr Pro His Lys Pro Pro Lys Ala Gln Ser Glu Pro Trp
1 5 10 15
Gln Thr Pro Cys Ala Trp Lys Ser Ser Gly Thr Thr Pro Pro Gly Pro
20 25 30
Pro Thr Gln Ser Thr Ser Pro Phe Gln Pro Thr Ser Ser Arg Leu Gly
35 40 45
Ser Ser Ser Asn Lys Thr Pro Asn Arg Thr Ser Arg Ser Gly Ser Arg
50 55 60
Ala Pro Thr Ser Pro Leu Ser Arg Ser Trp Arg Arg Asn Ser Arg Pro
65 70 75 80
Arg Arg Lys Trp Pro Arg Gly Ser Leu Arg Gly Ser Thr Glu Gly Ile
85 90 95
Leu Leu Ser Ala Arg Ile His Trp Leu Arg Val Phe Cys Leu Arg Thr
100 105 110
Trp Leu Gly
115

<210> 30897
<211> 664
<212> PRT
<213> A.fumigatus

<400> 30897
Val Leu Ser His Leu Lys Val Pro Ala Asn Ser Val Leu Arg Pro Pro
1 5 10 15

```
Pro His Ile Ser Pro Ser Lys Lys Pro Gln Phe Leu Ala Thr Gly Gly
            20                  25                  30
Ser Ala Leu Lys Asp Leu Gly Met Thr Arg Leu Lys Ala Thr Arg Asp
        35                  40                  45
Gly Ile Leu Gln Ala Gly His His Pro Gln Asn Asp His Gly Leu Arg
    50                  55                  60
Asp Pro Ser Gln Asn Ser Ser Lys Thr Trp Arg Pro Tyr Gln Gly Arg
65                  70                  75                  80
Trp Asp Pro Asn Asn Pro Gly Trp Arg Ser Ala Thr Ala Ile Pro Ser
                85                  90                  95
Arg Ser Asp Asn Ala Val Ser Ser Gly Ser Arg Lys Asn Gly Thr Arg
            100                 105                 110
Arg Asn Ala Arg Phe Phe Asp Arg Met Ser Lys Gly Glu Pro Ser Pro
        115                 120                 125
Tyr Thr Pro His Leu Ser Gly Ser Gln Gln Ala Gln Val Pro His Ile
    130                 135                 140
Gln Leu Gln Gln Pro Phe Asn Ala Pro Ser Ala Thr Pro Gln Leu Asp
145                 150                 155                 160
Pro Asn Val Asn Ser Phe Pro Val Leu Pro Met Asn Ser Asn Thr Ser
                165                 170                 175
Asp Thr Ser Asn Asn Thr Thr Met Gln Leu Pro Phe Leu Pro Leu His
            180                 185                 190
Val Pro His Ser Gln Ser Ala Gln Ser Gln Ile Leu Pro Asn Asn Leu
        195                 200                 205
Ser Phe Thr Pro Tyr Gly Phe Pro Pro Met Pro Asp Leu Asn Ser Pro
    210                 215                 220
Glu Lys Ile Leu Pro Phe Met Pro Ser Val Ala Pro Phe Pro Pro Leu
225                 230                 235                 240
Asn Leu Ser Val Phe Ser Pro Ala Leu Ala Pro Pro Val Phe Gly Gly
                245                 250                 255
Phe Pro Phe Cys Pro Phe Asp Pro Met Tyr Pro Thr Thr Val Gly Pro
            260                 265                 270
Thr Gly Gly Ser Ser Gln Gly Pro Thr Leu Gln Pro Leu Leu Pro Ile
        275                 280                 285
Pro Pro Arg Asp Arg Arg Ser Lys Thr Pro Glu Pro Pro Val Pro Thr
    290                 295                 300
Lys Glu Tyr Leu Thr Gln Ser Leu Leu Ala Pro Lys Leu Asn Pro Ser
305                 310                 315                 320
Arg Gln Pro Leu Leu Val Ile Leu Asp Leu Asn Gly Thr Leu Ile Phe
                325                 330                 335
Arg Lys His Arg Arg Leu Pro Pro Ser Phe Ala Lys Arg Thr Gly Leu
            340                 345                 350
Asp Gln Phe Leu Asp Thr Leu Leu Lys Asn Tyr Lys Val Met Ile Trp
        355                 360                 365
Ser Ser Ser Gln Pro Glu Thr Val Asn Ala Val Cys Glu Lys Leu Phe
    370                 375                 380
Pro Gly Glu Lys Arg Lys Ser Leu Val Ala Glu Trp Gly Arg Asp Lys
385                 390                 395                 400
Leu Asn Leu Ser Arg Ser Gln Tyr Arg Ser Lys Val Gln Val Tyr Lys
                405                 410                 415
Thr Leu Glu Thr Val Trp Ser Asn Gln Glu Ile Gln Ala Ser Tyr Pro
            420                 425                 430
Ile Ser His Gln Asn Gly Arg Phe Lys Thr Lys Lys Lys Ala Ala Gln
        435                 440                 445
Gly Lys Ser Arg Trp Asp Gln Thr Asn Thr Val Leu Ile Asp Asp Ser
    450                 455                 460
```

```
Lys Leu Lys Ala Leu Ser Glu Pro Tyr Asn Ile Leu Glu Ile Pro Glu
465                 470                 475                 480
Phe Thr Asn Ala Pro Gly Ile Asp Glu Ser His Ile Phe Pro Lys Val
                485                 490                 495
Leu Glu Cys Leu Asp Ser Leu Ala Gln His Asp Asp Val Ser Lys Leu
            500                 505                 510
Leu His Leu Trp Asn Ser Lys Leu Ala Thr Asn Ile Thr Thr Asn Ser
        515                 520                 525
Thr Ile Leu Asp Leu Asp Ile Gly Val Ile Gln Ser Pro Gln Arg Gln
    530                 535                 540
Asn Gly Ser Ser Leu Ile Thr Pro Ser Thr Pro Gln Glu Ile Ala Gln
545                 550                 555                 560
Ala Arg Lys Glu Arg Arg Arg Ala Arg Lys Gln Glu Lys Lys Ala Ala
                565                 570                 575
Arg Arg Ala Ala Ala Ala Ile Gly Asn Ala Pro Ala Asn Val Pro Thr
            580                 585                 590
Ser Ala Ala Val Ser Ala Ile Thr Ala Glu Gly Ile Asn Asp Gly Val
        595                 600                 605
Thr Ala Val Asp Ser Thr Pro Ala Thr Ser Gly Asp Asp Ser Ala Ile
    610                 615                 620
Leu Thr Ala Thr Ala Val Pro Gln Ser His Thr Arg His Ser Pro Ser
625                 630                 635                 640
Pro Val Ser Ser Val Gln Ser Glu Asn Tyr Leu Leu Asp Arg Leu Glu
                645                 650                 655
Glu Ser Leu Asn Val Arg Arg Asp
            660

<210> 30898
<211> 77
<212> PRT
<213> A.fumigatus

<400> 30898
Leu Asp Thr Val Gln Phe Gly Pro Ser Glu Ala Cys His Leu Thr Phe
1               5                   10                  15
Met Ala Thr Phe Lys Ser Thr Ile Tyr Thr Asp Gly Val Arg Gln Ala
            20                  25                  30
Tyr Tyr Trp Ile His Lys Met Asn Ile Lys Leu Leu Gly Ser Arg Ser
        35                  40                  45
Ala Phe Gly Phe Phe Met Ala Arg Leu Thr Thr Ile Ile Pro His Leu
    50                  55                  60
Lys Ile Ser Leu Ala Trp Ile Tyr Asn Ile His Ala Phe
65                  70                  75

<210> 30899
<211> 97
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (60)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30899
Val Tyr Asn Arg His His Asn Phe Gln Ser Gly Trp His Gln Ala Ile
```

```
1               5                   10                  15
Pro Phe Thr Lys Ile Asn Tyr Asn Asp Arg Phe Lys Thr Asp Thr Arg
            20                  25                  30
Lys Cys Lys Leu Gln Asn Phe Asp Phe Lys Cys Leu Arg His Ser Thr
        35                  40                  45
Ser Gly Ile Ile Glu Ser Thr Ile Glu Thr Asn Xaa Glu Trp Trp Tyr
    50                  55                  60
Lys Gly Arg Thr Lys Glu Ser Ala Thr Asp Asn Asn Phe Arg Arg Lys
65                  70                  75                  80
Ile Arg Asp Gln Arg Pro Ala Ala Tyr Tyr Asp Phe Pro Ala Val Cys
                85                  90                  95
Val
```

<210> 30900
<211> 260
<212> PRT
<213> A.fumigatus

<400> 30900

```
Arg Tyr Val Val Leu Phe Asp Ile Thr Ser Leu Ala Leu Leu Leu Thr
1               5                   10                  15
Arg Phe Gly Ala Asp Asp Leu Pro Val Ile Arg Glu Asn Ile Arg Lys
            20                  25                  30
Gly Phe Leu Glu Thr Gln Ser Lys Val Asn Ser Trp Val Gln Asn Leu
        35                  40                  45
Lys Lys Arg Leu Asp Gly Glu Asp Val Asp Glu Gly Pro Ser Asn Gln
    50                  55                  60
Arg Tyr Gly Glu Gly Gln Gly Tyr Ser Arg Pro Arg Arg Ser Gly Asp
65                  70                  75                  80
Met Gly Arg Arg Ser Gly Asp Arg Glu Arg Tyr Asp Ala Asp Pro Gln
                85                  90                  95
Leu Leu Ser Asp Asp Phe Ser Ala Leu Glu Leu Arg Asp Ser Glu Gly
            100                 105                 110
Leu Ser Ser Pro Val Lys Arg Ile Leu Pro Ala Thr Ile Ala Asn Leu
        115                 120                 125
Thr Ala Ala Pro Pro Pro Gln Pro Pro Arg Arg Pro Leu Ala Asn Pro
    130                 135                 140
Asn Leu Tyr Lys Ser Ala Ser Pro Ser Pro Asp Arg Arg Lys Val Ser
145                 150                 155                 160
Phe Gln Glu Gly Pro Pro Ser Glu Ile Gly Asn Leu Tyr Asp Thr Ser
                165                 170                 175
Asp Pro Ala Lys Arg Thr Ser Thr Gly Ser Lys Ser Ser Lys Trp Gln
            180                 185                 190
Pro Leu Ala Thr Val Glu Pro Ser Pro Val Ala Glu Asn Asp Pro Phe
        195                 200                 205
Ser Leu Gly Asp Ser Glu Asp Glu Arg Asp Thr Lys Gly Arg Glu Gln
    210                 215                 220
Asn His Ala Asp Glu Ala Asp Arg Ile Lys Arg Ala Thr Ala Glu Ala
225                 230                 235                 240
Met Ala Gly Glu Leu Gly Thr Thr Lys Val Asn Asp Gln Thr Gln Thr
                245                 250                 255
Ala Gly Lys Ser
            260
```

<210> 30901

<211> 477
<212> PRT
<213> A.fumigatus

<400> 30901

```
Ser Thr Gln Asp Trp Thr Ser Arg Ile Ala Trp Leu Lys Ile Ser Leu
1               5                  10                  15
Pro Cys Val Ile Ile Thr Cys Leu Glu Ser Leu Lys Val Cys His Pro
            20                  25                  30
Leu Asn Pro Arg Gln Cys Pro Glu Val Asp Val Pro Met Gln Gly Gly
        35                  40                  45
Cys Gln Ala Lys Ile Lys Ala Met Pro Arg Leu Asp Thr Leu Ile Ser
    50                  55                  60
His Leu Val Ala Ala Lys Arg Ser Leu Ser Ser Ile Asn His Val Trp
65                  70                  75                  80
Arg Ala Asn Glu Ile Val Thr Ala Ala Arg Ala Ala Leu Glu Glu Cys
                85                  90                  95
Val Val Val Ser Ala Arg Thr Ala Phe Leu Arg Arg Gly Leu Asn Asn
            100                 105                 110
Gln Leu Arg Leu Leu Tyr Ser Val Arg Thr Glu Val Glu Glu Ile Ser
        115                 120                 125
Leu Arg Gly Arg Ser Glu Phe Ala Ala Val Leu Lys Asp Leu Asp Asp
    130                 135                 140
Ala Asp Thr Arg Leu Arg Arg Thr Leu Glu Leu Leu Arg Glu Thr Ile
145                 150                 155                 160
Val His Pro Ala Phe Arg Pro Glu Gly Glu Asp Pro Lys Ser Leu His
                165                 170                 175
Asp Phe Val Asp Glu Arg Gly Val Glu Glu Leu His Ala Ala Leu Lys
            180                 185                 190
Ser Ser Ile Asp Arg Thr Thr Ala Ala Gln Ala Gln Leu Asp Ser Ser
        195                 200                 205
Asn His Ala Phe Asp Asp Glu Leu Leu Ser Ile Lys Glu Ala Leu Gly
    210                 215                 220
Thr Tyr Arg Thr Ala Ala Lys Leu Ala Ser Ser Arg Ser Ser Ser Ser
225                 230                 235                 240
Ala Ser Ser Ser Ser Thr Ser Asn Ser Ser Leu Pro Ser Ile Ser Thr
                245                 250                 255
Met Pro Ser Met Leu His Ser Leu Glu Met His Ala Gln Glu Met Ala
            260                 265                 270
Asn Leu Leu Glu Ser Leu Val Arg His Phe Asp Leu Cys Val Thr Ala
        275                 280                 285
Val Lys His Thr Glu Gly Gly Gly Ala Ala Ala Lys Ser Ile Thr Gly
    290                 295                 300
Asp Met Pro Val Gly Val Pro Val Ser Gly Arg Met Gly Ser Asn Ile
305                 310                 315                 320
Glu Glu Glu Ile Asn Asn Asn Leu Asn Ala Pro Leu Asp Pro Leu Ser
                325                 330                 335
Asn Ser Glu Tyr Gln Glu Met Val Asn Val Leu Phe Lys Asp Ala Ala
            340                 345                 350
Glu Ala Glu Asp Val Val Met Glu Ile Gln Asp Arg Ile Gly Glu Met
        355                 360                 365
Glu Ser Val Leu Glu Asn Val Leu Ala Gln Arg Asp Ala Leu Arg Ser
    370                 375                 380
Ile Tyr Asn Ala Thr Thr Asp Ile Tyr Gln His Leu Ser Ser Leu Gly
385                 390                 395                 400
Ser Thr Arg Leu Pro Gly Tyr Ile Ala Gln Ala His Asn Phe Thr Gln
```

```
                405                 410                 415
Val Trp His Glu Glu Asn Asp Arg Ile Ser Gly Gly Leu Ala Asp Leu
            420                 425                 430
Ser Asp Leu Asn Ser Leu Tyr Asn Gly Phe Leu Asp Ala Tyr Asp Gly
        435                 440                 445
Leu Ile Val Glu Val Pro Arg Gln Lys His Val Arg Gln Arg Val Glu
    450                 455                 460
Lys Val Ser Val Ile Gln Ala Gln Thr Gly Ser Thr Leu
465                 470                 475
```

<210> 30902
<211> 357
<212> PRT
<213> A.fumigatus

<400> 30902

```
Gly Pro Ala Pro Leu His Ser Phe Asn Thr Arg Gln Gln Ala Gln Gln
1               5                   10                  15
Ala Leu Val Ser His Val Leu Met Lys Leu Val Gln Lys Leu Ser Gly
            20                  25                  30
Tyr Pro Arg Leu Leu Leu Ala Gly Asn Pro Ser Lys Ile Asp Leu Gly
        35                  40                  45
Arg Leu Leu Leu Gly Ile Ile Ser Ala Val Ala Ser Gly Val Pro Phe
    50                  55                  60
Pro Leu Ile Gly Ile Leu Phe Gly Gln Leu Leu Asp Asp Phe Asn Ala
65                  70                  75                  80
Val Thr Cys Gly Glu Ser Glu Ser Ser Asp Ser Asp Ser Ala Tyr Gln
                85                  90                  95
His Asp Ile Asn Gly Lys Ile Leu Ile Ile Val Tyr Leu Ala Ile Ala
            100                 105                 110
Gln Phe Val Leu Ile Tyr Val His Leu Ser Cys Trp Ser Leu Asn Gly
        115                 120                 125
Ala Arg Leu Ala Gln Arg Leu Arg Glu Thr Tyr Leu Gln Asn Val Leu
    130                 135                 140
Arg Gln Glu Pro Ser Tyr Phe Asp Lys Leu Pro Pro Gly Glu Ile Ala
145                 150                 155                 160
Ser Arg Leu Asn Gly Asp Ile Gln Ala Ile Arg Ser Gly Thr Ser Glu
                165                 170                 175
Lys Val Gly Ile Cys Leu Ser Ser Leu Ser Phe Phe Ile Thr Ala Tyr
            180                 185                 190
Ile Val Ala Phe Ile Lys Asp Ala Lys Leu Ala Gly Met Leu Val Ser
        195                 200                 205
Leu Ile Pro Ala Tyr Phe Leu Met Ser Phe Val Gly Ser His Tyr Ile
    210                 215                 220
Glu Lys Tyr Thr Gly Arg Met Ser Asp Tyr Ala Ala Ser Ala Ala Ser
225                 230                 235                 240
Ile Ala Ser Glu Ala Leu Ser Asn Thr Val Val Val Gln Ala Phe Gly
                245                 250                 255
Ala Asn Ala Arg Leu Glu Glu Lys Phe Ser Lys Ala Leu Lys Ala Ala
            260                 265                 270
Glu Thr Glu Gly Leu Lys Lys Ala Thr Ala Val Gly Ile Gln Ser Gly
        275                 280                 285
Val Leu Tyr Phe Ile Ala Tyr Ser Ala Asn Gly Leu Ala Phe Trp Gln
    290                 295                 300
Gly Ser Arg Ser Ile Ala Glu Ser Val Ser Gly Asn Thr His Gly Ala
305                 310                 315                 320
```

```
Thr Val Gly Ala Thr Phe Thr Val Ile Phe Ile Leu Val Glu Gly Glu
                325                 330                 335
Phe Asp Ser Ile Leu Gly Ser Glu Arg Leu His Arg Gly Ala Gly Thr
            340                 345                 350
Asp His Arg Ser Thr
        355
```

<210> 30903
<211> 66
<212> PRT
<213> A.fumigatus

<400> 30903

```
Pro Thr Tyr Arg Leu Ile Ile Leu Pro Phe Tyr Ile Lys Val Ser Ser
1               5                   10                  15
Ser Leu Ile Gly Met Ala Ser Ser Gly Phe Tyr Tyr Pro Leu Ala Ser
            20                  25                  30
Phe Ile Lys Tyr Leu Ala Ser Tyr Tyr Leu Ser Arg Ser Tyr Tyr Tyr
        35                  40                  45
Ser Ser Phe Thr Ser Ser Ile Val Leu Leu Asp Leu Val Ile Lys Tyr
    50                  55                  60
Leu Lys
65
```

<210> 30904
<211> 82
<212> PRT
<213> A.fumigatus

<400> 30904

```
Asn Ser Met Val Ser Leu Arg Leu Gly Ile Gly Val Val Val Val Val
1               5                   10                  15
Thr Arg Val Met Ala Leu Ile Ile Cys Ser Cys Leu Val Ile Ile Cys
            20                  25                  30
Tyr Asn Thr Ser Asn Phe Thr Leu Asn Ser Leu Ile Tyr Tyr Phe Asn
        35                  40                  45
Ile Ile Thr Ser Leu Thr Phe Thr Tyr Ile Ala Tyr Leu Tyr Phe Tyr
    50                  55                  60
Leu Ile Phe Ile Thr Ser Ser Leu Tyr Lys Glu Leu Leu Leu Tyr Ile
65                  70                  75                  80
Ile Ser
```

<210> 30905
<211> 94
<212> PRT
<213> A.fumigatus

<400> 30905

```
Trp Asn Asn Glu Pro Pro Ala Ser Val Cys Phe His Thr Leu Phe Leu
1               5                   10                  15
Ile Arg Ser Ser Ser Met His Leu Met Ser Asn Val Gln Arg Leu Val
            20                  25                  30
Leu Phe Val His Gln Val Gly Leu Phe Arg Leu Arg Arg Leu Ser Ala
        35                  40                  45
Pro Ala Ala Asn Ser Met Thr Leu Thr Arg Lys Ser Arg Leu Ile Ser
```

```
    50                  55                  60
Tyr Pro His Pro Leu Ser Thr Leu Gln Gly Cys Arg Arg Pro Gly Gln
65                  70                  75                  80
His Tyr Gly Val Arg Pro Leu Asn Tyr Pro Lys His Ala Ser
                85                  90
```

<210> 30906
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30906

```
Trp Cys Ser Ile Ile Arg Val Gln Lys Pro Thr Val Asp Asn Ser Leu
1               5                   10                  15
Pro Pro Gly Ser Arg Asp Gln Thr Ser Gly Glu Ser Pro Leu Ala Thr
            20                  25                  30
Gly Asp Asn Gly Ser Trp Asn Gly Glu Gly Ala Lys Val Ile His Pro
        35                  40                  45
Phe Ala Ser Met Ile Ser Tyr Trp Leu Ser Phe Tyr Val Ile Pro Asp
    50                  55                  60
Thr Leu Cys Ile Arg Ile Pro Ser
65                  70
```

<210> 30907
<211> 88
<212> PRT
<213> A.fumigatus

<400> 30907

```
Val Ala Thr Ile Ala Arg Ala His Asp Leu Arg Val His Leu Arg Ser
1               5                   10                  15
Tyr Arg Pro Pro Gly Ile Gly Ile Met Pro Ser Ala Asp Gly Ser Ser
            20                  25                  30
Ser Ala Arg Pro Asn Gly Thr Ser Ser Arg Ser Asp Gln Leu Ala Trp
        35                  40                  45
Tyr Lys Ser Gln Tyr Glu Gln Leu Glu Ala Glu Leu Ala Asp Phe Gln
    50                  55                  60
Ala Ser Ser Arg Glu Leu Glu Ala Glu Leu Glu Lys Asp Ile Phe Thr
65                  70                  75                  80
Thr Gly Leu Glu Ala Ser Ala Leu
                85
```

<210> 30908
<211> 194
<212> PRT
<213> A.fumigatus

<400> 30908

```
Lys Arg His Ser Pro Thr Phe Thr Arg Ala Arg Leu Val Thr Ile Pro
1               5                   10                  15
Lys Arg Leu Pro Pro Ala Leu Pro Leu Arg Asn Pro His Arg Asp Pro
            20                  25                  30
Val Pro Met Ser Gln Ser Thr Pro Thr Ser Pro Thr Ser Ser Thr Ser
        35                  40                  45
Ser Ser Leu Asn Gly Arg Arg Ser Val Ala Ser His Pro Asp Asn Ser
    50                  55                  60
```

```
Thr Val Asn Gly Phe Ala Gln Leu Pro Leu His Pro Asn Asn Tyr Ser
65                  70                  75                  80
Ser Ser Ser Leu Leu Ser Lys Glu Thr Pro Gln Ser His Asn His Val
                85                  90                  95
Ser Ala Glu Lys Asp Glu Phe His Ser Val Thr Ser Ala Gln Ala Ser
            100                 105                 110
Asp Asp Asp Glu Ala Glu Pro Asp Thr Ala Thr Val Asn Gly Phe His
        115                 120                 125
Arg Glu Ser Ser Asn Glu Asp Ile Ile Ser Asp Ser Ala Gln Ser Glu
    130                 135                 140
His Ala Ala Leu Pro Ala Ala Glu Ala Val Ala Asn Thr Ala Thr Gln
145                 150                 155                 160
Glu Pro Ala Ser Lys Pro Glu Ser Asn Asp Ala Thr Phe Glu Glu Thr
                165                 170                 175
Lys Ser Val Ala Glu Ser Gly Ser His Arg Thr Ser Glu Pro Ala Gln
            180                 185                 190
Pro Ala
```

Substitute Sheet (Rule 26)

<210> 30909
<211> 589
<212> PRT
<213> A.fumigatus

<400> 30909

```
Leu Arg Ser Ser Phe Ser Ser Arg Leu Val Pro Leu Gln Ala Ser Thr
1               5                   10                  15
Ser Asp Lys Leu Thr Thr Gly Ser Arg Ala Ala Ala Ile Ala Phe Val
            20                  25                  30
Ser Tyr His Ser Ser Asp Thr Leu Leu Arg Ser Arg Gly Ile Ala Val
        35                  40                  45
His Pro Ile Pro Ser Gln Ala Asn Pro Phe Ala Leu Ser Leu Ser Thr
    50                  55                  60
Cys Gln Met Thr Ser Ile Leu Leu Ala Ala Ser Ile Ala Gly Leu Val
65                  70                  75                  80
Ala Leu Tyr Leu Tyr His Val Asn Arg Ala Met Thr Lys Val Pro Glu
                85                  90                  95
Glu Ala Arg Leu Leu Ser Pro Arg Arg Trp Thr Ala Glu Glu Ile Lys
            100                 105                 110
Glu Ala Tyr Arg Lys Ala Ile Glu Ser Pro Val Asp Val Ser Lys Ser
        115                 120                 125
Leu Pro Pro Lys Gln His Arg Arg Tyr Ile Val Val Gly Gly Ser Gly
    130                 135                 140
Met Ser Thr Leu Pro Ile Asp Ala Arg Gln Leu Leu Ile Thr Ser Gly
145                 150                 155                 160
Leu Val Gly Asn Trp Ile Val Thr His Leu Leu Ala Arg Gly Glu Asp
                165                 170                 175
Pro Thr Ala Ile Arg Val Leu Asp Leu Gln Ser Pro Arg Gln Gln Ile
            180                 185                 190
Leu Asp Gln Gly Val Gly Phe Val Lys Val Asp Ile Thr Asp Ala Glu
        195                 200                 205
Ala Val Gln Ala Ala Phe Thr Gln Pro Trp Pro Gln Gln Asp Thr Ser
    210                 215                 220
Leu Pro Leu Thr Val Phe His Asn Ala Ala Val Ile Arg Pro Gly Glu
225                 230                 235                 240
Arg His Lys Ala Phe Leu Gln Phe Cys Thr Arg Val Asn Val Asp Gly
```

```
                245                 250                 255
Thr Arg Asn Ile Leu Ala Ala Ala Lys Lys His Gly Ala Ser Cys Phe
            260                 265                 270
Ile Ser Thr Ser Ser Gly Ser Val Leu Leu Arg Arg Pro Ser Phe Trp
        275                 280                 285
Ile Thr Pro Trp Thr Asn Trp Pro Lys Arg Val Val Gln Ile Ile Ser
    290                 295                 300
Asp Ala Ala Glu Thr Pro Lys Glu His Asp Gln Phe Phe Gly Asn Tyr
305                 310                 315                 320
Ala Val Ser Lys Ala Glu Ala Glu Arg Ile Ile Arg Ala Ala Asp Ser
                325                 330                 335
Leu Glu Ser Asn Phe Arg Thr Gly Cys Ile Arg Pro Ala Asn Gly Ile
            340                 345                 350
Tyr Gly Val Gly Asp Thr Thr Ile Thr Gly Met Tyr Leu Ile Lys Gly
        355                 360                 365
Gly Val Pro Arg Tyr Val Ser Ser Leu Pro Gln Gly Arg Asp Leu His
    370                 375                 380
Thr Ser Leu Thr Pro Ser Asn Ser Trp Thr Tyr Pro Val Ile Gln Ser
385                 390                 395                 400
Phe Val Asn Ala Glu Asn Val Ser Ile Ala His Leu Leu Tyr Glu Gln
                405                 410                 415
Arg Leu Leu Asp His Thr Ala Ser Pro Thr Lys Leu Pro Asn Ile Cys
            420                 425                 430
Gly Gln Ala Phe Thr Val Pro Asp Pro Asn Pro Ala Ile Ala Phe Ser
        435                 440                 445
Asp Leu Tyr Leu Leu Met Thr Thr Leu Ala Lys Thr Pro Ile Arg Phe
    450                 455                 460
Pro Arg Val Ala Pro Val Pro Met Leu Leu Leu Ser Tyr Leu Leu Glu
465                 470                 475                 480
Trp Tyr Ala Leu Leu Gln His Leu Tyr Leu Pro Arg Leu Leu Pro Arg
                485                 490                 495
Ile Thr Gly Asp Leu Glu Gln Leu Gln Pro Gly Leu Phe Ala Ile Ser
            500                 505                 510
Asp Val His Thr Phe Ala Asp Asp Ser Arg Ala Arg Lys Ser Pro Ala
        515                 520                 525
Glu Gly Gly Leu Gly Tyr Val Ala Pro Met Thr Thr Leu Asp Gly Met
    530                 535                 540
Cys Lys Gln Val Leu Glu Trp Asn Arg Ser Ala Gly Ala Glu Thr Val
545                 550                 555                 560
Ala Ala Ala Ala Asp Arg Gly Lys Gly Val Val Gly Val Ser Glu Glu
                565                 570                 575
Gly Leu Asp Val Asn Leu Val Val Pro Ser Lys Lys Leu
            580                 585
```

<210> 30910
<211> 185
<212> PRT
<213> A.fumigatus

<400> 30910

```
Pro Ile Leu Arg Gln Leu Arg Arg Val Gln Ser Arg Gly Arg Ala His
1               5                  10                  15
His Pro Arg Cys Arg Gln Pro Arg Ile Gln Leu Pro His Gly Leu Tyr
            20                  25                  30
Pro Thr Arg Gln Trp His Leu Arg Ser Trp Arg His His His His Gly
        35                  40                  45
```

```
Asn Val Ser Asp Gln Gly Arg Ser Ser Gln Val Arg Phe Leu Pro Pro
    50                  55                  60
Ser Gly Lys Arg Leu Ala Tyr Lys Pro Asn Ser Ile Lys Gln Leu Asp
65                  70                  75                  80
Leu Pro Arg His Pro Lys Leu Arg Gln Arg Arg Lys Arg Leu His Arg
                85                  90                  95
Ser Pro Pro Leu Arg Thr Ala Ser Pro Arg Ser His Arg Ile Pro Asp
            100                 105                 110
Gln Thr Pro Gln His Leu Arg Pro Gly Leu His Arg Pro Gly Pro Gln
        115                 120                 125
Pro Arg His Arg Leu Gln Arg Pro Leu Pro Pro His Asp His Pro Arg
    130                 135                 140
Lys Asp Pro His Pro Leu Pro Ala Arg Arg Ser Cys Pro Tyr Ala Ala
145                 150                 155                 160
Ser Phe Val Ser Ser Arg Met Val Cys Pro Pro Pro Ala Ser Leu Leu
                165                 170                 175
Ala Pro Ser Pro Thr Lys Asp His Gly
            180                 185
```

<210> 30911
<211> 72
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (20),(21),(23),(24),(31),(32),(33),(35),(36),(37),(38),(65),(66),(71)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30911

```
Leu Gln Glu Val Gly Leu Val Pro Trp Ala Gly Gln Thr His Pro Ser
1               5                   10                  15
Pro Ser Leu Xaa Xaa Asp Xaa Xaa Arg Arg Ala Pro Gly Trp Xaa Xaa
            20                  25                  30
Xaa Lys Xaa Xaa Xaa Xaa Leu Pro Asn Val Gly Asp Leu Pro Asp Trp
        35                  40                  45
Tyr Ser Asp Ala Arg Phe Ala Gln Val Phe Thr Thr Gly Leu Glu Gly
    50                  55                  60
Xaa Xaa Gly Gly Thr Ile Xaa His
65                  70
```

<210> 30912
<211> 122
<212> PRT
<213> A.fumigatus

<400> 30912

```
Asn Ser Ile Pro Asp Pro Leu Gly Trp Ala Ser Arg Leu Val Asn Leu
1               5                   10                  15
Thr Glu Thr Ile Gln Phe Lys Ala Arg Leu Leu Gln Leu Glu Cys Ser
            20                  25                  30
Ile Met Asp Cys Leu Val Lys Val Ala Pro Val Val Pro Tyr Leu Asn
        35                  40                  45
Lys Ala Leu Pro Asp Phe Ala Gln Ala Lys Leu Glu Cys Ser Leu Val
    50                  55                  60
Glu Tyr Ser Thr Val Ser Pro Pro Gln Met Tyr Asn Val Asp Met Ser
```

65 70 75 80
Ile Arg Pro Gly Arg Phe Gly Ser Arg Arg Ala Arg Gly Glu Met Ile
85 90 95
Lys Ser Gln Asp Met Gly Thr Thr Tyr Cys Pro Gly Gln Val Ala Gly
100 105 110
Ala Pro Gly Ile Ala Asp Gly Ile Gln Arg
115 120

<210> 30913
<211> 350
<212> PRT
<213> A.fumigatus

<400> 30913
His Val Thr Pro Glu Met Leu Glu Ser Val Gln Ile His Leu Glu Ala
1 5 10 15
Asp Lys Val Gly Met Thr Pro Ala Glu Lys Ser Lys Leu Val Asn Ala
20 25 30
Ala Thr Ala Val Tyr Ile Asp Met Ala Val Glu Glu Met Arg Ser Arg
35 40 45
Gly Leu Ala Pro Lys Ala Asp Tyr Arg Val His Trp Trp Lys Val Met
50 55 60
Gln Asp Phe Val Asp Ser Gly Glu Gly Gln Arg Val Leu Gln Glu Thr
65 70 75 80
Ser Leu Thr Asn Gln Glu Leu Glu Arg Val Ile Ala Lys Leu Gly Ile
85 90 95
Glu Gly Glu Val Ile Ala Arg Met Gly Pro Glu Ile Val Asn Ile Leu
100 105 110
Thr Gly Lys Thr His Ala Leu Ala His Ile Met Arg Asp Asp Leu Leu
115 120 125
Phe Arg Val Tyr Leu Ser Asp Glu Gly Arg Arg Ala Asn Arg Tyr Met
130 135 140
Ala Glu Tyr Ala Arg Leu Leu Thr Ser Gln Arg Arg Asp Ile Arg Ile
145 150 155 160
Leu Glu Ile Gly Ala Gly Thr Gly Gly Thr Thr Ser Glu Val Leu Asn
165 170 175
Leu Cys Ser Pro Asn Gly Glu Ser Phe Cys Ala Glu Tyr Met Tyr Thr
180 185 190
Asp Leu Ser Pro Gly Phe Phe Asn Ala Ala Lys Thr Thr Leu Lys Lys
195 200 205
Trp Glu Ser His Leu Ala Phe Gln Val Leu Asn Ile Ala Asp Asp Pro
210 215 220
Ala Gly Gln Gly Phe Lys Glu His Thr Tyr Asp Leu Ile Ile Ala Ala
225 230 235 240
Asn Val Ile His Ala Thr Ala Arg Leu Thr Asn Thr Leu Ser Asn Val
245 250 255
His Lys Leu Leu Lys Pro Gly Gly Val Phe Gly Leu Val Glu Leu Thr
260 265 270
Arg Leu Thr Pro Phe Tyr Asn Leu Thr Phe Gly Ser Leu Ser Gly Trp
275 280 285
Trp Ala Gly Val Asp Glu Gly Arg Thr Glu Ser Pro Leu Gln Ser Pro
290 295 300
Gln Gln Trp Asn Ser Leu Leu Lys Gln Thr Gly Phe Ser Gly Val Asp
305 310 315 320
Leu Ala Ala Tyr Asp Leu Pro Gly Pro Glu Arg His Ser Cys Leu Leu
325 330 335

```
Leu Ser Thr Ala Leu Ser Asn Ser Val Thr Thr Asn Gly His
            340                 345                 350

<210> 30914
<211> 72
<212> PRT
<213> A.fumigatus

<400> 30914
Thr His Leu Ser Met Thr Glu Thr Leu Gln Lys Lys Arg Leu Leu Arg
1               5                  10                  15
Met Thr Val Ala His Tyr Arg Gln Pro Asn Val Ser Glu Glu Glu Phe
            20                  25                  30
Tyr Gln Trp Val Thr Glu Gln His Ala Ala Arg Ala Ala Lys Leu His
        35                  40                  45
Ala Lys Asn Gly Ile Glu Gly Phe Cys Ile Val Ser Arg Arg Pro Ile
    50                  55                  60
Trp Arg Arg Val Met Asn Ala Lys
65                  70

<210> 30915
<211> 103
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (88)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30915
Tyr Phe Thr Pro Gln Ser Phe Arg Asp Phe Thr Ser Glu Leu Asn Asn
1               5                  10                  15
Ala Arg Gly Asn Pro Trp Arg Val Arg Asp Phe Asp Ala Gln Val Asp
            20                  25                  30
Phe Phe Phe Arg Asp Met Glu Thr Phe Tyr Lys Gly Ala Ala Asp Ala
        35                  40                  45
Asp Phe Gln Ala Ile Gln Ala Glu Glu Gly Pro Phe Val Ser Gly Glu
    50                  55                  60
Arg Ala Glu Ile Ser Phe Gly Trp Val Glu Thr Tyr Val Arg Glu Gly
65                  70                  75                  80
Gln Val Val Asn Val Asp Glu Xaa Gly Lys His Thr Phe Leu Pro Phe
                85                  90                  95
Lys Asp Met Ser Gln Ala Pro
            100

<210> 30916
<211> 77
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (19),(20),(21),(22),(23),(24),(25),(26),(27),(28),(29),(30),(31),(32)
<223> Identity of amino acid sequences at the above locations are unknown.
```

<400> 30916
Ala Ser Lys Phe Thr Leu Ile His Cys Val His Val Lys Thr Cys Leu
1 5 10 15
His His Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30
Thr Leu Leu Asn Trp Gly Lys Pro Pro Gly Val Ser Pro Thr Phe Ile
35 40 45
Pro Pro Trp Gln Gln Leu Pro Pro Phe Ser Pro Ser Trp Ala Phe Ile
50 55 60
Phe Pro Lys Lys Ala Pro Pro Gln Ile Pro Pro Ser Pro
65 70 75

<210> 30917
<211> 136
<212> PRT
<213> A.fumigatus

<400> 30917
Asn Leu Pro Gln Leu Thr Thr Tyr Pro Gly Gln Ser Gly Ile Asp Pro
1 5 10 15
Val Pro Leu Val Trp Gly Ala Pro Asp Ala Lys Ser Arg Gly Pro Val
20 25 30
Ile Val Thr Arg Ser Ala Gly Met Leu Lys Arg Arg Asn Ala Ile Gly
35 40 45
Ala His Gly Gly Ser Tyr Ser Ile Tyr Asn Ala Leu Ala Ile Ala Ala
50 55 60
Gly Asp Leu Asp Val Asn Phe Arg Pro Asp Phe Arg Asn Ser Glu Pro
65 70 75 80
Thr Phe Asn Phe Pro Trp Gln Pro Ser Trp Ala Asp Lys Thr Lys Ile
85 90 95
Val Ser Met Asp Ser Val Trp Gly Leu Asp Ile Val Gln Pro Ile Ser
100 105 110
Leu Lys Gly Pro Gly Lys Ala Gly Trp Gly Ile Pro Gly Pro Thr Asp
115 120 125
Gly Leu Phe Thr Pro Gly Gln Ile
130 135

<210> 30918
<211> 206
<212> PRT
<213> A.fumigatus

<400> 30918
Phe Leu Leu Thr Val Leu Thr Gly Leu Trp Ala Gly His Val Gly Thr
1 5 10 15
Pro Arg Leu Leu Lys Leu Phe Asp Lys Tyr Asn Ile Lys Ala Thr Trp
20 25 30
Phe Ile Pro Gly His Ser Leu Glu Thr Phe Pro Glu Glu Cys Ala Gln
35 40 45
Val Arg Asp Ala Gly His Glu Ile Gly Leu His Gly Tyr Ser His Glu
50 55 60
Asn Pro Ser Asp Met Thr Pro Glu Gln Gln Lys Asp Val Leu Asp Lys
65 70 75 80
Thr Tyr Arg Met Leu Thr Asp Phe Cys Gly Arg Pro Pro Arg Gly Ile
85 90 95
Val Ala Pro Trp Trp Glu Thr Ser Lys Glu Met Ala Asp Leu Leu Leu

```
            100                 105                 110
Ala Tyr Gly Ile Glu Tyr Asp His Ser Met Ser His His Asp Cys Gln
        115                 120                 125
Met Tyr Trp Leu Arg Thr Gly Asp Thr Trp Thr Lys Ile Asp Tyr Ser
    130                 135                 140
Gln Lys Ala Glu Thr Trp Met Lys Pro Leu Val Arg Gly Gln Asp Thr
145                 150                 155                 160
Gly Leu Val Glu Ile Pro Gly Asn Trp Tyr Ile Asp Asp Leu Pro Pro
                165                 170                 175
Met Met Phe Ile Lys Asn Ala Pro Asn Ser His Gly Trp Val Asn Pro
            180                 185                 190
Arg Asp Ile Glu Asp Ile Trp Lys Val Cys Tyr Leu Gly Pro
        195                 200                 205
```

<210> 30919
<211> 132
<212> PRT
<213> A.fumigatus

<400> 30919

```
Ser Ser Ala Val Pro Ala Ser Arg Val Val Lys Thr Glu His Val Pro
1               5                   10                  15
Ser Ser Ile Gly Pro Met Ala Arg Asp Leu Ser Ser Leu Ala Tyr Val
            20                  25                  30
Cys Arg Ile Phe Ala Asn Ala Lys Pro Trp Lys Leu Asp Pro Lys Cys
        35                  40                  45
Ala Pro Leu Pro Trp Asn Glu Asp Ser Phe Gly Asp Ala Leu Ser Arg
    50                  55                  60
Pro Leu Val Val Gly Leu Ile Leu Asp Asp Gly Val Val Lys Ile His
65                  70                  75                  80
Pro Pro Val Glu Arg Ala Leu Arg Glu Leu Ser Ala Lys Leu Glu Ser
                85                  90                  95
Arg Gly His Glu Val Val Val Trp Asp Ala Ser Asp His Phe Asp Tyr
            100                 105                 110
Ile Lys Leu Met Asp Gln Tyr Tyr Thr Ala Asp Gly Cys Glu Asp Ile
        115                 120                 125
Arg Arg Asp Val
    130
```

<210> 30920
<211> 162
<212> PRT
<213> A.fumigatus

<400> 30920

```
Val Ala Gly Glu Pro Tyr Ile Pro His Val Glu Ala Leu Ile Asn Arg
1               5                   10                  15
Gly Lys Ala Ile Ser Val Tyr Glu Tyr Trp Gln Leu Asn Lys Gln Lys
            20                  25                  30
Thr Thr Leu Gln Lys Arg Tyr Leu Asp Lys Trp Asn Thr Val Arg Ser
        35                  40                  45
Gln Ser Gly Lys Gln Val Asp Ile Leu Leu Gly Pro Thr Met Pro His
    50                  55                  60
Ala Ala Val Pro His Arg Ser Val Arg Trp Val Gly Tyr Thr Lys Ile
65                  70                  75                  80
Trp Asn Leu Leu Asp Tyr Pro Ala Leu Thr Phe Pro Ala Asp Gln Val
```

```
                85                  90                  95
Arg Ala Asp Arg Asp Arg Leu Pro Asp Glu Leu Tyr Arg Pro Arg Asn
            100                 105                 110
Glu Leu Asp Gly Trp Asn Trp Gly Leu Tyr Asp Pro Leu Thr Met Asn
        115                 120                 125
Gly His Pro Ile Asn Leu Gln Ile Val Gly Arg Lys Leu Glu Glu Glu
    130                 135                 140
Lys Val Leu Gly Ala Ala Thr Val Ile Glu Lys Ile Trp Arg Thr Ala
145                 150                 155                 160
Lys Thr
```

<210> 30921
<211> 290
<212> PRT
<213> A.fumigatus

<400> 30921

```
Thr Arg Trp Ile Arg Glu Pro Pro Thr Val Glu Asn Val Gln Asp Arg
1               5                   10                  15
Gly Cys Leu Thr Glu Asn Val Thr Leu Thr Ala Cys Ala Leu Lys Lys
            20                  25                  30
Gly Cys Glu Gly Asp Asp Cys Lys Asn Arg Val Cys Ile Gly Asp Asp
        35                  40                  45
Cys Thr Pro Thr Gly Cys Thr Gly Asp Asp Cys Thr Asp Gly His Cys
    50                  55                  60
Ser Gly Ser Asp Cys Gln Asp His Gly Cys Ile Gly Pro Asp Cys Asp
65                  70                  75                  80
Ser Ser Gly Ser Gly Arg Cys Phe Gly Leu Gln Cys Leu Ser Trp Gly
                85                  90                  95
Cys Ile Gly Leu Asp Cys Ser Ser Ile Asp Phe Thr Cys Thr Gly Ser
            100                 105                 110
Cys Cys Arg Ile Val Thr Cys Ser Gly Arg Asp Cys Val Asn Gly Ile
        115                 120                 125
Cys Thr Gly Gln Asp Cys Arg Ser Glu Asp Asn Asp Cys Glu Ala Glu
    130                 135                 140
Lys Ala Asp Ser Cys Thr Asp Trp Ile Ser Ser Thr Leu Val Thr Pro
145                 150                 155                 160
Ala Ser Thr Tyr Ser Thr Thr Thr Ile Thr Thr Arg Cys Asp Thr Ile
                165                 170                 175
Thr Ala Cys Ser Ala Lys Ala Thr Thr Thr Thr Ser Thr Val Asp Glu
            180                 185                 190
Asp Gly Leu Ile Glu Gly Thr Ile Thr Asp Phe Gln Trp Ala Thr Thr
        195                 200                 205
Ser Asp Asp Ala Asp Leu Thr Ser Tyr Leu Glu Ser Asp Tyr Ser Ser
    210                 215                 220
Phe Trp Ser Ala Phe Asp Ser Thr Ser Thr Thr Thr Thr Thr Thr Thr
225                 230                 235                 240
Lys Pro Thr Thr Thr Thr Thr Thr Thr Ser Ser Arg Pro Thr Glu Thr
                245                 250                 255
Ser Tyr Asp Cys Lys Gly Ser Ile Arg Cys Gly Ser Phe Ala Asn Leu
            260                 265                 270
His Ser Phe Cys Asn Met Ala Lys Gly Phe Leu Thr Glu Asp Thr Leu
        275                 280                 285
Tyr Gly
    290
```

<210> 30922
<211> 71
<212> PRT
<213> A.fumigatus

<400> 30922
Arg Pro Ala Pro Thr Tyr Leu Ile Phe Leu Leu Glu Thr Ala Val Trp
1 5 10 15
His Leu Leu Tyr Ile Thr Asp Leu Asp Glu Phe Leu Cys Leu Leu Asp
20 25 30
Tyr Phe Asp Cys Met Ser Gly Glu Cys Thr Gly Asp Cys Arg Gly Lys
35 40 45
Thr Thr Lys Ala Ser Thr Gly Asn Asp Asn Val Glu Met Ser Leu Phe
50 55 60
Arg Asn Leu Phe Gly Leu Ser
65 70

<210> 30923
<211> 215
<212> PRT
<213> A.fumigatus

<400> 30923
Val Gly Ala Gly Leu Gln Ile Thr Pro Asn Ala Ser Arg Leu Phe Glu
1 5 10 15
Tyr Trp Gln Leu Pro Asn Ser Ile Trp Gln Ala Ala Ala Glu Pro Thr
20 25 30
Ala Leu Thr Val His Arg Tyr Thr Gly Pro Ile Leu Ala Asn Glu Pro
35 40 45
Val Phe His Lys Asn Ile Arg Ala Lys Tyr Gly Ala Pro Phe Ile Asp
50 55 60
Leu His Arg Val Asp Leu Gln Gln Ala Leu Phe Thr Arg Ala Lys Glu
65 70 75 80
Leu Gly Val Thr Phe His Leu Asn Glu Arg Val Asp Ser Ile Asp Phe
85 90 95
Ala Thr Thr Thr Val Gln Thr Leu Ala Gly Asn Arg Tyr Thr Gly Asp
100 105 110
Leu Ile Ile Ala Ala Asp Gly Leu Trp Ser Arg Cys Arg Glu Cys Phe
115 120 125
Leu Gly Lys Lys Asp Ala Pro Leu Pro Thr Gly Asp Leu Ala Tyr Arg
130 135 140
Ile Val Leu Thr Ala Asp Gln Ile Ser Asp Pro Glu Leu Arg Ala Trp
145 150 155 160
Val Glu Asn Pro Glu Cys His Phe Trp Ile Gly Pro Gly Ala His Ala
165 170 175
Val Ala Tyr Ser Leu Arg Asn Gly Arg Met Phe Asn Ile Val Leu Leu
180 185 190
Val Pro Asp Asn Leu Pro Pro Arg Val Ser Arg Gln Ser Gly Ser Ala
195 200 205
Leu Arg Asn Ala Glu Ala Leu
210 215

<210> 30924
<211> 81
<212> PRT

<213> A.fumigatus

<400> 30924
Ser Ala Pro Pro Ser Leu Pro Ala Val Trp Phe Arg Ser Lys Lys Cys
1 5 10 15
Gly Ser Thr Leu Lys Ala Gly Ile Gln Cys Leu Leu Pro Ala Phe Leu
20 25 30
Leu Pro Leu Leu Pro Leu Pro Ala Pro Leu Lys Leu Asn Ile Asn Ser
35 40 45
Pro Glu Ser Val Pro Gly Thr Met Phe His Cys Gly Gly Thr Ile Glu
50 55 60
Asn Glu Val Pro Gly Ser Tyr Pro Leu Tyr Asn Gln Leu Ala Leu Pro
65 70 75 80
Gly

<210> 30925
<211> 76
<212> PRT
<213> A.fumigatus

<400> 30925
Gly Ser Val Ser Pro Pro Ser Ala Thr Ser Lys Gly Phe Arg Ile Phe
1 5 10 15
Thr Thr Asp Pro Phe Ala Lys Ser Tyr Glu Thr Lys Glu Gly Asn Ile
20 25 30
Ala Ile Ile Glu Met Leu Phe Ser Thr Ser Leu Val Ala Leu Ile Leu
35 40 45
Ser Pro Arg Arg Leu Gln Ile Thr Asn Thr Lys Val Cys Ser Ser Ser
50 55 60
Leu Asp Asn Cys Thr Phe Leu Asn Ser Val Pro Arg
65 70 75

<210> 30926
<211> 68
<212> PRT
<213> A.fumigatus

<400> 30926
Arg Gln Ser Thr Ile Cys Glu Leu Thr Phe Pro Thr Thr Val Leu Ala
1 5 10 15
Val Arg Leu Asn Arg Lys Arg Leu Val Ile Val Leu Glu Asp Gln Ile
20 25 30
Tyr Leu Tyr Asp Ile Gln Thr Met Lys Leu Leu Tyr Thr Ile Gln Thr
35 40 45
Ser Pro Asn Pro Asn Gly Lys Arg Cys Asn Pro Leu Leu Ala Phe Glu
50 55 60
Ser Ser Ala Phe
65

<210> 30927
<211> 165
<212> PRT
<213> A.fumigatus

<400> 30927

```
Cys Gln Thr Ala Ile Cys Ala Leu Ser Pro Ser Ser Asp Asn Cys Tyr
1               5                  10                  15
Leu Ala Tyr Pro Leu Pro Gln Lys Ala Pro Pro Ser Ser Phe Asn Pro
            20                  25                  30
Pro Ser His Thr Pro Pro Gly Thr Thr His Val Ser Pro Thr Ser Gly
        35                  40                  45
Glu Val Leu Ile Phe Asp Thr Leu Lys Leu Glu Ala Ile Asn Val Ile
    50                  55                  60
Glu Ala His Arg Ser Pro Leu Ala Cys Ile Thr Leu Asn Ser Asp Gly
65                  70                  75                  80
Thr Leu Leu Ala Thr Ala Ser Asp Lys Gly Thr Ile Ile Arg Val Phe
                85                  90                  95
Ser Val Pro Asp Gly His Lys Leu Tyr Gln Phe Arg Arg Gly Ser Met
            100                 105                 110
Pro Ser Arg Ile Phe Ser Met Ser Phe Asn Thr Thr Ser Thr Leu Leu
        115                 120                 125
Cys Val Ser Ser Ser Thr Glu Thr Ile His Leu Phe Lys Leu Ser His
    130                 135                 140
Pro Thr Ser Ser Pro Asp Ile Arg Leu His Gln Gly Ala Glu Gly Thr
145                 150                 155                 160
Ala Asn Gly Tyr Pro
                165
```

<210> 30928
<211> 281
<212> PRT
<213> A.fumigatus

<400> 30928

```
Leu Phe Tyr Ser Val Pro Gly Arg Gly Leu Pro Asp Leu Tyr Gly Cys
1               5                  10                  15
Gln Val Arg Gln Cys Cys Val Gly Leu Gly Leu Lys Ala Gln Gln Trp
            20                  25                  30
Leu Ile Pro Pro Ile Tyr His Ile Ile Ser Ile Lys Leu Thr Gly Tyr
        35                  40                  45
Ser Asp Ser Gln Phe Cys Ile Leu Glu Gln Phe Phe Pro Asp Gly Pro
    50                  55                  60
Asn His Pro Phe Ala Ser Thr Met Met Lys His Phe Asn Lys Leu Gly
65                  70                  75                  80
Ala Pro Leu Tyr Ser Ile His Glu Tyr Arg Ser Leu Ser Glu Gln Glu
                85                  90                  95
Gln Arg Phe Arg Asn Ala Gly Trp Ala His Ala Gln Ala Arg Ser Leu
            100                 105                 110
Trp Asp Leu Trp Ser Asp Asn Glu Phe Val Gly Ser Ser Leu Arg Ala
        115                 120                 125
Trp Leu Asp Thr Val Glu Pro Phe Asp Glu Trp Glu Glu Phe Ala Leu
    130                 135                 140
Phe Ala Ser His Tyr Phe Leu Leu Val Ala Phe Thr Lys Pro Gln Thr
145                 150                 155                 160
Met Val Gln Glu Leu Gln Lys Thr Pro Ala Leu Thr Thr Glu Pro Asp
                165                 170                 175
Ile Ser Ser Gln Tyr Val Leu Leu Ala Gly Asn Asn Pro Arg Gly Gly
            180                 185                 190
Gln Arg Arg Phe Gly Ala Leu Ile Pro Asp Ser Glu Asn Ser Met Gly
        195                 200                 205
His His Ser Gly Leu Gly Arg Gln Thr Arg Asp Val Ser Thr Asp Leu
```

```
    210                 215                 220
Tyr Ser Thr Cys Lys Gly Met Thr Thr Pro Gln Leu Pro Phe Pro Pro
225                 230                 235                 240
Arg Glu Val Ser Ala Arg Met Cys His Thr Val Thr Ser Leu Arg Gly
                245                 250                 255
Gly Asp Cys Leu Leu Val Gly Gly Arg Ala Ser Pro Ala Asn Ala Phe
            260                 265                 270
Gln Asp Cys Trp Leu Arg Gln Gly Val
        275                 280
```

<210> 30929
<211> 73
<212> PRT
<213> A.fumigatus

<400> 30929

```
Thr Asn Asn Ser Ser Ile Val Ser Lys Arg Ser Val Glu Leu Leu Tyr
1               5                   10                  15
Tyr Pro Lys Pro His Phe Phe Arg Tyr Phe Val Lys Arg Pro Pro Arg
            20                  25                  30
Arg Ser Pro Leu Ile Asn Arg Gly Tyr Trp Leu Arg Met His Ala Met
        35                  40                  45
Ala Glu Ser Val Arg Gln Phe Met Lys Gln Pro Ser Asp Lys Pro Lys
    50                  55                  60
Phe Val Leu Asn Leu Gly Cys Gly Leu
65                  70
```

<210> 30930
<211> 149
<212> PRT
<213> A.fumigatus

<400> 30930

```
Val Val Glu Asn Tyr Arg Cys Ala Gly Arg Thr Glu Gly Arg Cys Ser
1               5                   10                  15
Leu Gln Ser Tyr Ala Lys Leu Gly Cys Arg Ser Asp Pro Leu Pro Phe
            20                  25                  30
Ile Leu Leu Ser Thr Asp Lys Ser Leu Cys Ser Thr Thr Arg Phe Val
        35                  40                  45
Asp Ile Asp Tyr Glu Lys Leu Met Val Asn Lys Lys Thr Ala Ile Arg
    50                  55                  60
Arg Thr Asp Glu Ile Thr Arg Leu Leu Glu Asn Val Glu Phe Leu Ser
65                  70                  75                  80
Asp Glu Ser Pro Ile Gln Ile Arg Ser Glu Gln Tyr Leu Ala Ile Gly
                85                  90                  95
Cys Asp Leu Lys Asn Leu Lys Lys Leu Asp Asp Val Leu Lys Thr Glu
            100                 105                 110
Leu Leu Pro Ser Asp Cys Ser Ile Leu Phe Leu Ala Glu Val Ser Leu
        115                 120                 125
Thr Tyr Met Asp Val Lys Ser Ala Asn Ala Val Leu Ala Trp Ala Ser
    130                 135                 140
Lys Leu Asn Asn Gly
145
```

<210> 30931
<211> 166

<212> PRT
<213> A.fumigatus

<400> 30931
Asp Arg Leu Leu Ser Gly Ala Gly Ile Cys Arg Trp Thr Leu Ala Asp
1 5 10 15
Ala His Asp Arg Cys Gly Ser Val Leu Cys Ile Ser Thr Val Gly Phe
20 25 30
His Ser Gln Thr Val Leu Phe Glu Ala Arg Ala Asp Cys Asn Arg Leu
35 40 45
Met Asp His Tyr Asp Leu Arg Thr Cys Tyr Gln Pro Asp Leu Ser Gly
50 55 60
Leu His Leu Arg Val Tyr Gln Phe Gln Asn Leu Leu Ala Arg His Arg
65 70 75 80
Pro Ser Leu Phe Ala His Leu Glu Ser Leu Asn Val Glu Pro Ile Tyr
85 90 95
Val Ser Gln Trp Phe Leu Ser Phe Phe Ala Val Ser Cys Pro Leu Pro
100 105 110
Met Leu Leu Arg Ile Tyr Asp Val Ile Phe Leu Glu Gly Ala Cys Glu
115 120 125
Thr Leu Met Arg Val Ala Leu Ser Leu Met Gln Arg Asn Glu Lys Lys
130 135 140
Ile Met Ala Tyr Thr Glu Phe Glu Asp Val Met Gln Phe Leu Leu Ser
145 150 155 160
Arg Ser Leu Trp Asp Thr
165

<210> 30932
<211> 259
<212> PRT
<213> A.fumigatus

<400> 30932
Leu Met Phe Asn Arg Tyr Ala Cys His Ala Asp Asp Phe Val Asn Asp
1 5 10 15
Phe Val Ser Leu Thr Ser Leu Val Thr Lys Glu Ser Leu Gln Ala Leu
20 25 30
Glu Ala Ser Tyr Asn Gln Ser Gln Gly Val Pro Thr Gly Ile Thr Phe
35 40 45
Pro Gln Met Gln Ala Ala Ala Ser Arg Phe Leu Gly Arg Phe Trp Ala
50 55 60
Gly Ser Gly Ser Gln Ala Lys Ser Phe Asn Leu Asn Pro Asn Asn Gly
65 70 75 80
Ser Met Ser Thr Arg Ala Ser Val Arg Arg Ser Ala Ser Lys Gln Ser
85 90 95
Met Thr Ser Thr Leu Asn Ser Ile Glu Ser Thr Ser Asp Ala Ser Thr
100 105 110
Ala Pro Thr Glu Leu Ser Ala Glu Pro Pro Lys Pro Arg Ala Lys Ser
115 120 125
Ala Met Ser His Asn Lys Asp Arg Asp Leu His Ser Gln Ile Glu Asp
130 135 140
Leu Leu Met Ala Leu Ser Asp Leu Gln Arg Gln His Ala Asp Leu Thr
145 150 155 160
Arg Glu Leu Gln Gln Glu Arg Glu Glu Arg Glu Glu Asp Gln Gln Leu
165 170 175
Ala Gln Ser Met Leu Lys Tyr Ile Lys Glu Ile Glu Ala Asp Asp Pro

```
            180                 185                 190
Pro Ala Glu Leu Ile Arg Lys Ala Glu Glu Arg Phe Val Ala Ser Gly
        195                 200                 205
Ser Ala Lys Arg Val Ser Ile Pro Gln Thr Lys Gln Gln Leu Arg Glu
    210                 215                 220
Asp Leu Asn Arg Trp Lys Glu Met His Glu Ile Glu Ala Gly Arg Cys
225                 230                 235                 240
Leu Asp Leu Thr Arg Arg Ser Ser Pro Gly Ala Ala Ser Ala Ala Pro
                245                 250                 255
Phe Lys Ile
```

<210> 30933
<211> 232
<212> PRT
<213> A.fumigatus

<400> 30933

```
His His Cys Ala Asp Pro Ser Ala Ala Gly Gly Glu Asp Glu Ser Thr
1               5                   10                  15
Ala Leu Leu Leu Ala Arg Leu Glu Gln Glu Asn Asn Ala Leu Ala Thr
            20                  25                  30
Asn Pro Lys Ser Val Ser Arg His Arg Leu Gln Thr Arg Ala Ser Arg
        35                  40                  45
Ala Gln Ser Leu His Gln Ile Lys Arg Leu Ile Asn Glu Asp Pro Arg
    50                  55                  60
Ser Ser Leu Arg Tyr Ser Gln Leu Pro Pro Pro Pro Met Thr Glu Leu
65                  70                  75                  80
Glu Phe Trp Ala Ala Leu Val Ala Asp Tyr Pro Gln Thr Ala Gln Arg
                85                  90                  95
Leu Pro Thr Leu Thr Ser Asn Lys Ile Arg Gly Gly Ile Pro Pro Pro
            100                 105                 110
Leu Arg Gly Val Val Trp Pro Ser Leu Ala Gly Ala Arg Asp Ser Ser
        115                 120                 125
Leu Leu Val Glu Tyr Glu Arg Leu Cys Gly Glu Ser Ser Pro Tyr Glu
    130                 135                 140
Gly Leu Ile Gly Lys Asp Ile Gly Arg Ser Phe Pro Asn Val Glu Met
145                 150                 155                 160
Phe Arg Asp Pro His Gly Glu Gly Gln Gln Met Leu Ala Lys Val Leu
                165                 170                 175
Lys Cys Phe Ser Leu Tyr Asp Thr Lys Ile Gly Tyr Cys Gln Gly Leu
            180                 185                 190
Gly Phe Val Val Gly Pro Leu Leu Met His Met Thr Asp Ala Glu Ala
        195                 200                 205
Phe Cys Val Leu Val Arg Trp Val Ser Thr His Arg Leu Phe Phe Ser
    210                 215                 220
Arg Pro Glu Leu Ile Ala Thr Gly
225                 230
```

<210> 30934
<211> 132
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE

<222> (125),(130)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30934
Leu Ser Pro Leu Cys Gln Tyr Ser Ala Asp Asp Gly His Met Thr Pro
1 5 10 15
Trp His Met Ala His Leu Gly Gly Ile Ala Gln Arg Gly Pro Gly Phe
20 25 30
Leu Met Val Glu Ala Thr Ala Val Glu Pro Glu Gly Arg Ile Thr Pro
35 40 45
Gln Asp Leu Gly Leu Trp Lys Asp Ser Gln Ile Glu Pro Leu Ser Arg
50 55 60
Val Ile Glu Phe Val His Ser Gln Asn Gln Leu Ile Gly Val Gln Ile
65 70 75 80
Ala His Ala Gly Arg Lys Ala Ser Thr Val Ala Pro Trp Leu Ser Ala
85 90 95
Asn Asp Thr Ala Ser Glu Lys Met Gly Gly Trp Pro Gly Arg Val Ser
100 105 110
Ser Pro Arg Gly Trp Lys Glu Pro Leu Tyr Leu Gln Xaa Gly Arg Ser
115 120 125
Ile Xaa Glu Ser
130

<210> 30935
<211> 66
<212> PRT
<213> A.fumigatus

<400> 30935
Arg Tyr Pro Gly Glu Gly Ser Glu Ala Arg Gly Arg Gln Val Arg Asp
1 5 10 15
Cys Arg Pro Pro Pro Tyr Val Tyr Ser Arg Asp Leu Pro Gly Cys Leu
20 25 30
Ala Met Glu Ser Asn Gly Asp Val Gly Glu Phe Ile Glu Gln Leu Cys
35 40 45
Phe Pro Ala Ile Ala Cys Asn Ala Met Tyr Glu Asn Val Tyr Leu Leu
50 55 60
Gly Met
65

<210> 30936
<211> 185
<212> PRT
<213> A.fumigatus

<400> 30936
Asp Leu Gln Thr Tyr Ile Val Pro Asp Thr Met Pro Arg Pro Asn Pro
1 5 10 15
Arg Ile Pro Ala Asn Pro Arg Thr Cys Ser Asp Leu Lys Glu Phe Leu
20 25 30
Arg Pro Leu His Thr Glu Val Asp Thr Leu Tyr Lys Leu Ser Tyr Arg
35 40 45
Leu Ser Leu Ser Tyr Gln Lys Leu Ala Ser Thr Ser Leu Asp Glu Phe
50 55 60
Phe Pro Thr Ala Ile Thr Cys Leu Pro Thr Gly His Glu Thr Gly Arg
65 70 75 80

```
Tyr Leu Ala Val Tyr Val Gly Leu Ser Tyr Leu Arg Ile Ala Phe Ile
                85                  90                  95
Asp Leu Leu Gly Asp Gln Gln Val Glu Gly His Ser Arg Val Arg Arg
            100                 105                 110
Thr Leu Glu Lys Ala Trp Pro Ile Glu Glu His Leu Arg Arg Asp His
        115                 120                 125
Ala Pro Asp Leu Phe Thr Trp Ile Gly Asp Cys Ile Ala Glu Val Val
    130                 135                 140
Ala Asp Gly Leu Ala Asn Pro Ser Glu Lys Met Pro Cys Glu Leu Ile
145                 150                 155                 160
Thr Gly Ile Ser Leu Cys Phe Pro Val Lys Tyr Met Ile Ile Pro Pro
                165                 170                 175
Ser Gly Pro Met His His Ile Ser Asn
            180                 185

<210> 30937
<211> 437
<212> PRT
<213> A.fumigatus

<400> 30937
Ser Ser Leu Arg Leu Val Gln Cys Thr Ile Tyr Leu Ile Arg Tyr Asp
1               5                   10                  15
Arg Gln Lys Ser Leu Asp Glu Ala Val Leu Met Pro Thr Gly Lys Gly
            20                  25                  30
Phe Ala Leu Asn Ser Asp Leu Asn Leu Arg Gln Ala Leu Leu Ser Gly
        35                  40                  45
Tyr Glu Arg His Thr Arg Arg Leu Asp Glu His Gln Gly Pro Met Pro
    50                  55                  60
Ala Lys Lys Arg Lys Leu Tyr Tyr Leu Pro Ser Leu Arg Ile Ala Val
65                  70                  75                  80
Met Thr Asn Asp Thr Val Ala Thr Leu Ala Ser Leu Ala Tyr Phe Ile
                85                  90                  95
Pro Ser Leu Pro Asn Thr Arg Val Val Met Gly Leu Ile Val Gly Ala
            100                 105                 110
Gly Cys Asn Ala Thr Val Pro Phe Arg Ile Thr Asp Leu His Glu Leu
        115                 120                 125
Lys Thr Arg His Ile Arg Ala Arg Glu Pro Asp Ala Leu Glu Thr Leu
    130                 135                 140
Val Ser Thr Glu Trp Thr Leu Ser Ser Ala Ala Ala Pro Leu His Glu
145                 150                 155                 160
Leu Gly Ile Thr Thr Ser Trp Asp Thr Glu Leu Asp Met His Ser Gln
                165                 170                 175
Arg Pro Gly Phe Gln Pro Phe Glu Tyr Met Val Gly Gly Arg Tyr Ile
            180                 185                 190
Gly Glu Leu Val Arg Ile Ile Cys Tyr Asp Trp Phe Asn Arg Ser Leu
        195                 200                 205
Gly Met Ala Arg Ser Ala Leu Pro Leu Lys Leu Val Lys Glu Tyr Ser
    210                 215                 220
Leu Thr Thr Asp Phe Leu Ser Leu Phe Val Ala Ser Asn Tyr Ser Asn
225                 230                 235                 240
Glu Arg Leu Ala Ser Asp Leu Ser Lys Arg Leu Pro Pro Pro Pro Thr
                245                 250                 255
Ser Ser Trp Arg Trp Thr Pro Asn Leu Ala Gly Asp Val Arg Ala Ile
            260                 265                 270
Ala Ser Ala Val Gln Asp Arg Ala Ala Ser Leu Val Ala Ala Ala Val
```

```
        275                 280                 285
Val Gly Leu Leu Ala Cys Thr Arg Glu Ile Gln Leu Arg Ser Pro Asp
    290                 295                 300
Ser Leu Ser Ala Lys Ile Asp Gln His Ala His Ile Ala Pro Lys Gly
305                 310                 315                 320
Thr Glu Pro Tyr Asp Leu His Ser Arg Phe Ser Ser Lys Ser Gly Trp
                325                 330                 335
Arg Asn Gly Pro Glu Glu Leu Ala Val Ala Val Ser Gly Gly Val Ile
            340                 345                 350
Gln His Tyr Pro His Tyr Lys Glu Thr Val Gln Arg Tyr Ile Asp Arg
        355                 360                 365
Leu Ile Leu Cys Ala Gly Pro Gln Glu Gly Gly Arg Ser Val Phe Leu
    370                 375                 380
Arg Glu Val Ser Asp Gly Gly Ile Ile Gly Ile Gly Val Leu Ala Gly
385                 390                 395                 400
Thr Ala Ser Gly Glu Ile Gly Glu Ile Ile Gly Ser Ser Leu Gln Lys
                405                 410                 415
Glu Asn Thr Ser His Gly Asp Pro Lys Thr Ala Asp Asn Glu Ala Ser
            420                 425                 430
Pro Arg Asn Gln Ser
        435
```

<210> 30938
<211> 78
<212> PRT
<213> A.fumigatus

<400> 30938

```
Ser Asp Ser Asp Ser Ala Cys Thr His Arg Tyr Leu Met Leu Asp Asp
1               5                   10                  15
Phe Thr Ala Thr Asp Thr Leu Ser Ala Leu Asp Ala Glu Leu His Leu
            20                  25                  30
Arg Ala Ser Leu Cys Arg Gln Arg Asp Val Met Lys Phe Ser Ile Leu
        35                  40                  45
Asn Glu Asp His Asp Tyr Val Lys Phe Asp Gly Ile Gly Asp Glu Ser
    50                  55                  60
Thr Ala Val Tyr Ser Leu Val Tyr Ser Ile Ser Phe Asp Arg
65                  70                  75
```

<210> 30939
<211> 155
<212> PRT
<213> A.fumigatus

<400> 30939

```
Thr Ile Ala Thr Tyr Gly Tyr Leu Asp Gly Glu Tyr Ile Phe Ser Ala
1               5                   10                  15
Ala Leu Leu Leu Val Met Val Asn Ala Ala Phe Pro His Asn Glu Thr
            20                  25                  30
Asn Ala Arg Thr Met Asp Met Ala Leu Asn Leu Leu Arg Ser Met Ala
        35                  40                  45
Asp Arg Gly Asn Thr Tyr Leu Gly Ser Arg His Ser Leu Leu Leu Glu
    50                  55                  60
Leu Gln Ala Ser Ile Gly Ser Asn Gln Val Ala Gln Gly Arg Val Asp
65                  70                  75                  80
Phe Asn Ala Pro Val Thr Pro Ile Ser Thr Gln Gln Arg Ser Pro Pro
```

```
                85                  90                  95
Gln Thr Ile Gly Ile Gly Glu Asp Ala Arg Val Gly Pro Ser Asp Trp
            100                 105                 110
Pro Ser Gln Gln His Ile Thr Phe Asn Leu Asp Ile Asn Asp Asp Pro
        115                 120                 125
Gly Leu Trp Glu Glu Val Leu Gly Gln Ile Asp Ile Asp Met Asp Thr
    130                 135                 140
Asp Trp Ile Glu Asn Thr Leu Arg Lys Gln Asp
145                 150                 155
```

<210> 30940
<211> 152
<212> PRT
<213> A.fumigatus

<400> 30940

```
His Phe Pro Phe Pro Gly Asn Cys Leu Tyr Tyr Ala Leu Ser Asp Gln
1               5                   10                  15
Leu Tyr Gly Ser Pro Asp His Ala Asp Gln Ile Arg Leu Gln Leu Ala
            20                  25                  30
Asp His Ile Ala Ala His Arg Asp Tyr Phe Ile Asn Phe Ile Val Ala
        35                  40                  45
Ser Gly Gly Glu Arg Arg Ala Pro Arg Arg Ala Ala Ala Ser Arg Tyr
    50                  55                  60
Ser Ser Ser Ser Arg Tyr Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
65                  70                  75                  80
Ala Ser Pro Ala Pro Pro Thr Ser Glu Asp Ile Glu Arg Ser Phe Glu
                85                  90                  95
Ser Lys Leu Glu Gly Cys Arg Lys Asn Gly Thr Trp Gly Gly Ser Glu
            100                 105                 110
Asp Ile Gln Ala Phe Cys Gln Ser Phe Lys Val Asp Val Arg Val Tyr
        115                 120                 125
Ser Thr Lys Gly Ile Gln Thr Phe Arg Asp Val Tyr Ala Arg Gly Ser
    130                 135                 140
Glu Glu Ser Pro Ser Asn Ile Ala
145                 150
```

<210> 30941
<211> 496
<212> PRT
<213> A.fumigatus

<400> 30941

```
Ser Ser Ser Pro Ala Val Lys Thr Glu Leu Gly Gln Val Phe Asp Val
1               5                   10                  15
Ile Ile Glu Glu Ile Glu Lys Thr Val Ser Glu Thr Ala Thr Asn Ile
            20                  25                  30
Asp Gln Gly Pro Ala Ser Arg Asp Ala Cys Ala Leu Tyr Arg Ser Leu
        35                  40                  45
Val Gln Tyr Thr Thr Glu His Leu Thr Phe Glu Asp Pro Ile Asp Arg
    50                  55                  60
Leu Gly Phe Val Lys Arg Val Gln Ser Leu Ile Ala Lys Leu Asn Glu
65                  70                  75                  80
Gln Leu Thr Val Ala Leu Ser Asp Glu Arg His Arg Asp Tyr Leu Thr
                85                  90                  95
Gln Leu Ala Ser Tyr Asn Leu Val Phe Ala Ser Gln Ala Phe Gln Val
```

```
            100                 105                 110
Ala Cys His Pro Leu Val Asp Arg Lys Ile Ala His Glu Ser Ser Asp
        115                 120                 125
Met Val Lys Phe Ala Ala Arg Arg Val Leu Gly Phe Val Gly Ser Arg
    130                 135                 140
Met Ala Gln Leu Gln Met Arg Thr Phe Leu Gln Asn Asn Lys Ser Pro
145                 150                 155                 160
Thr Lys Arg Glu Ala Gly Ile Arg Ala Asp Gln Ser Ala Leu Glu Ala
                165                 170                 175
Tyr Val Ile Val Arg His Val Leu Gln Ser Met Asp Glu Leu Lys Gly
            180                 185                 190
Cys Phe Gly Glu Leu Ile Ala Glu Ala Tyr Leu Ser Ala Gly Gly Asp
        195                 200                 205
Leu Ser Asn Ser Ser Asp Ile Asp Gly Phe Glu Asn Gly Trp Leu Ser
    210                 215                 220
Leu Phe Ile Ser Leu Pro Leu Asn Glu Phe Asp Ser Cys Gly Leu Val
225                 230                 235                 240
Arg Ile Gly Ala Arg Phe Gln Glu Ala His Asp Asn Trp Leu Met Val
                245                 250                 255
Lys Arg Leu Leu Ser Pro Val Leu Asp Asn Tyr Asp Thr Asn Ala Glu
            260                 265                 270
Thr Gln Pro Ile Ser Cys Asn Asn Tyr Cys Arg Ala Leu Phe Arg Arg
        275                 280                 285
Cys Tyr His Leu Ile Asn Gly Trp Gly Trp Arg Asp Cys Arg Pro Ile
    290                 295                 300
Met Gln Leu Leu Tyr Asp Phe Phe Ala Lys Arg His Leu Tyr Asp Leu
305                 310                 315                 320
Lys Leu Glu Glu Ser Phe Lys Ser Pro Ser Phe Leu Asp Glu Leu Asp
                325                 330                 335
Arg Asn Pro Ser Phe Asp Val Gln Pro Gly Asp Pro Ser Phe His Ile
            340                 345                 350
Phe Leu Lys Ile Leu Ala Thr Gly Leu Arg Phe Leu Pro Leu Phe Cys
        355                 360                 365
Asp Lys Lys Gln Ile Arg Asn Phe Ala Trp Arg Leu Leu Pro Asn His
    370                 375                 380
Asp Gly Arg Tyr Pro Lys Glu Lys Pro Ile Ser Gln Ser Asp Leu Asp
385                 390                 395                 400
Ala Val Arg Asn His His Asp Leu Leu Cys Thr Leu Phe Phe Ala Val
                405                 410                 415
Pro Asp Gly Cys Arg Pro Arg Leu Glu Ile Ile Lys Thr Leu Val Asp
            420                 425                 430
Pro Ala Ile Ser His Arg Glu Thr Cys Asn Ile Ser Ile Arg Ala Trp
        435                 440                 445
Ser Arg Leu Val Arg Phe Lys Leu Ser Thr Asp Glu Asp Leu Ser Gly
    450                 455                 460
Leu Glu Pro Phe Ala Asp Trp Leu Cys Tyr Phe Leu Gly Glu Phe Leu
465                 470                 475                 480
Arg Gln His Ser Ile Ala Arg Lys Glu Ile Glu Ala Gln Asn Ile Ile
                485                 490                 495
```

<210> 30942
<211> 310
<212> PRT
<213> A.fumigatus

<400> 30942

```
Thr Thr Leu Cys Pro Phe Arg Arg Gly Pro Trp Arg Val Ile Leu Arg
1               5                  10                  15
Ile Cys Pro Asn Ser Lys Ala Pro Gly Phe Ser Arg Thr Arg Arg Ser
            20                  25                  30
Thr Pro Phe Lys Glu Val Ser Val Cys Gly Arg Ile Arg Pro Arg Gln
        35                  40                  45
Val Lys Gly Thr Arg Gly Leu Asn His Thr Lys Asp Lys Gly Gly Ala
    50                  55                  60
Ser Glu Ala Lys Phe Ile Val Arg Phe Leu Glu Gly Lys Leu Arg Leu
65                  70                  75                  80
Gly Leu Ala Glu Lys Thr Val Leu Val Ala Leu Ala Gln Ala Val Val
                85                  90                  95
Ala His Glu Ala Ala Val Arg Gly Glu Lys Thr Pro Ser Pro Glu Lys
            100                 105                 110
Met Ala Gln Gly Glu Ala Val Leu Lys Thr Val Tyr Ser Glu Leu Pro
        115                 120                 125
Ala Tyr Glu Val Ile Ile Pro Ala Met Leu Glu His Gly Leu Phe Asn
    130                 135                 140
Leu Pro Lys Val Cys Lys Leu Gln Pro Gly Ile Pro Ile Lys Pro Met
145                 150                 155                 160
Leu Ala Lys Pro Thr Lys Ser Ile Thr Glu Val Leu Asn Arg Phe Glu
                165                 170                 175
Gly Lys Asn Phe Thr Cys Glu Tyr Lys Tyr Asp Gly Glu Arg Ala Gln
            180                 185                 190
Ile His Tyr Val Ala Pro Asp Val Val His His Tyr Pro Gly Ala Lys
        195                 200                 205
Thr Thr Leu Gln Lys Asp Ser Lys Gly Leu Ser Ala Ile Phe Ser Arg
    210                 215                 220
Asn Ser Glu Asp Leu Ser Lys Lys Tyr Pro Asp Val Leu Ala Lys Leu
225                 230                 235                 240
Glu Thr Trp Val Lys Asp Gly Val Lys Ser Phe Val Leu Asp Cys Glu
                245                 250                 255
Thr Val Ala Trp Asp Thr Val Asn Lys Lys Val Leu Pro Phe Gln Gln
            260                 265                 270
Leu Met Thr Arg Lys Arg Lys Asp Val Lys Ala Glu Asp Val Lys Val
        275                 280                 285
Lys Val Cys Ile Phe Ala Phe Asp Leu Leu Phe Leu Asn Gly Glu Val
    290                 295                 300
Ser Ser Pro Ile Ala Tyr
305                 310

<210> 30943
<211> 81
<212> PRT
<213> A.fumigatus

<400> 30943
Pro Thr Val Lys Gln Thr Leu Arg Glu Arg Arg Glu Leu Leu His Lys
1               5                  10                  15
Ser Phe Glu Val Val Val Gly Glu Phe Gln Phe Ala Gln His Gly Asp
            20                  25                  30
Thr Asn Asp Leu Glu Glu Ile Gln Asn Leu Leu Asp Glu Ser Val Asn
        35                  40                  45
Val Ser Cys Glu Gly Leu Met Val Lys Met Leu Asp Thr Glu Glu Ser
    50                  55                  60
Gly Tyr Glu Pro Ser Lys Ser Lys Pro Glu Leu Ala Lys Gly Ile Leu
```

65 70 75 80
His

<210> 30944
<211> 182
<212> PRT
<213> A.fumigatus

<400> 30944
Gln Val Lys Lys Asp Tyr Leu Ala Gly Val Gly Asp Ser Leu Asp Leu
1 5 10 15
Val Val Leu Gly Ala Tyr Tyr Gly Arg Gly Lys Arg Thr Ser Val Tyr
20 25 30
Gly Ala Phe Leu Leu Ala Ala Tyr Asn Ser Ser Thr Gln Thr Tyr Glu
35 40 45
Thr Ile Cys Asn Ile Gly Thr Gly Phe Ser Glu Ala Leu Leu Glu Glu
50 55 60
Leu Tyr Lys Glu Leu Ser Pro Leu Thr Ile Asp Arg Pro Lys Pro Phe
65 70 75 80
Tyr Ser His Ser Asn Val Pro Lys Asp Gln Pro Asp Val Trp Phe Glu
85 90 95
Pro Arg Leu Val Trp Glu Val Lys Thr Ala Asp Leu Thr Leu Ser Pro
100 105 110
Arg Tyr Lys Ala Ala Ala Asp Glu Phe Val Gly Thr Ala Gly Gly Gly
115 120 125
Lys Gly Val Ser Leu Arg Phe Pro Arg Phe Ile Lys Ser Arg Asp Asp
130 135 140
Lys Lys Pro Glu Gln Ala Thr Thr Thr Arg Ala Val Ala Glu Met Tyr
145 150 155 160
Arg Lys Gln Glu Ala Val Leu Lys Glu Asn Thr Ser Lys Gly Gly Val
165 170 175
Asp Asp Asp Phe Glu Tyr
180

<210> 30945
<211> 68
<212> PRT
<213> A.fumigatus

<400> 30945
Glu Ser Ile Pro Ile Asp Val Ile Asn Gln Pro Ser Ser Lys Thr Asn
1 5 10 15
Tyr Leu Asp Ile His Phe Gly Glu Thr Lys Asp His Arg Asp Arg Gly
20 25 30
Asn His Glu Asp Asp Tyr Leu Asp Ser Trp Ser Asn Glu Phe Asn Val
35 40 45
Ala Gly Thr Lys Ser Gln Asp Thr His Thr Arg Ala Ser Leu Gly Leu
50 55 60
Ser Pro His Gln
65

<210> 30946
<211> 60
<212> PRT
<213> A.fumigatus

<400> 30946
His Asn Pro Leu Pro Leu Gln Glu Gly Ser Met Glu Gly Tyr Phe Thr
1 5 10 15
Asp Leu Pro Lys Phe Gln Gly Pro Gly Val Leu Lys Asn Gln Glu Ile
20 25 30
Tyr Ala Ile Gln Gly Gly Phe Cys Leu Arg Pro Asn Pro Ser Thr Pro
35 40 45
Gly Lys Gly Tyr Gln Gly Leu Glu Pro Tyr Lys Gly
50 55 60

<210> 30947
<211> 167
<212> PRT
<213> A.fumigatus

<400> 30947
Asp Ala Gly Phe Pro Ala Pro Gly Gly Arg Arg Arg Gly Pro Leu Ile
1 5 10 15
Phe Cys Leu Leu Leu Asn Met Phe Leu Ser Met Arg Ala Lys Asp Asp
20 25 30
Gln Ser Ser Leu Val Phe Ser Gly Val Phe Ser Ile Val Trp Ile Gly
35 40 45
Glu Ala Val Val Thr Leu Gln Ile Lys Leu Leu Gly Gly Asn Met Tyr
50 55 60
Val Ser Pro Phe Asn Val Met Glu Leu Arg Ile Ile Leu Thr Val Thr
65 70 75 80
Ser Ser Val Thr Ser Ser Phe Phe Gln Ser Val Cys Ile Ile Gly Tyr
85 90 95
Thr Leu Phe Pro Leu Val Ile Ala Ala Met Leu Ser Ala Leu Gly Leu
100 105 110
Pro Thr Ile Ala Arg Ile Pro Val Tyr Leu Ala Leu Ile Ala Trp Ser
115 120 125
Leu Ala Ala Gly Val Ser Ile Leu Gly Gly Ser Gly Val Ile Lys Asn
130 135 140
Arg Val Gly Ile Ala Val Tyr Pro Leu Phe Val Phe Tyr Ile Ala Ile
145 150 155 160
Gly Cys Leu Cys Phe Ile Ser
165

<210> 30948
<211> 60
<212> PRT
<213> A.fumigatus

<400> 30948
Ile Val Arg Ile Pro Gly Arg Pro Tyr Arg Ser Ser Asn Leu Leu Thr
1 5 10 15
Asp Lys Thr Lys Ala Ala Asp Arg Asp Val Glu Tyr Glu Gln Arg Ile
20 25 30
Asp Arg Asn Ala Tyr Pro Val Leu Asp Tyr Thr Gly Thr Thr Gln Asn
35 40 45
Ala His Thr Cys Ser Gln Gly Pro Cys Asn Glu Arg
50 55 60

<210> 30949

<211> 68
<212> PRT
<213> A.fumigatus

<400> 30949
Asp Asn Leu Met Thr Thr Thr Phe Ala Gln Glu Asp Gly Tyr His Asp
1 5 10 15
Phe Asp Ala Ser Met Thr Glu Gly Leu Arg Pro Ser Gln Ser Ser Cys
20 25 30
Gln Pro Leu Arg Cys Thr Pro Ile Asn Trp Tyr Asp Ile Cys Ser Gln
35 40 45
Phe Glu Ser Phe Gln Cys Asn Ser Met Leu Leu Lys Ile Asp Tyr Phe
50 55 60
His Thr Pro Leu
65

<210> 30950
<211> 85
<212> PRT
<213> A.fumigatus

<400> 30950
Asp Gly Ile Gln Phe Cys Leu Phe Pro Val Val Ser Ser Ile Ile Ile
1 5 10 15
Ile Asn Ser Ile Pro Ile Leu His Asn Gln Leu Ser Ser Val Ile Arg
20 25 30
Gln Leu Thr Ser Leu Thr Cys Leu Gly Phe Ile His Lys Pro Ala Leu
35 40 45
Ala Ala Asn Leu Pro Ser Tyr Gln Gly Ser Pro Gly Val Pro Asn Ser
50 55 60
Ser Ser Gly Val Lys Val Ser Arg Ser Lys Lys Gln Gly Thr Ile Gly
65 70 75 80
Thr Tyr Leu Pro Ile
85

<210> 30951
<211> 193
<212> PRT
<213> A.fumigatus

<400> 30951
Phe Thr Val Asp Phe Asp Thr Tyr Thr Trp Val Leu Ser Arg Ile Pro
1 5 10 15
Thr Val Phe Arg His Ile Phe Pro Thr Ser Ile Lys Gln Asn Asn Asn
20 25 30
His Asn Met Arg Leu Ser Thr Leu Leu Leu Pro Leu Leu Pro Leu Ala
35 40 45
Leu Ala Asn Pro Asn Pro Asn Pro Val Ala Ala Pro Asp Pro Gln Ser
50 55 60
Thr Gly Gly Gly Leu Leu Ser Glu Leu Pro Thr Ile Leu Asn Gly Val
65 70 75 80
Lys Glu Leu Leu Ser Glu Asp Thr Leu Asn Asp Leu Gln Thr Ile Val
85 90 95
Lys Gly Gly Ala Val Leu Leu Gly Gly Asp Asn Pro Ala Asn Ile Ala
100 105 110
Lys Leu Leu Ser Lys Asp Asn Val Asn Lys Leu Gln Asp Val Ile Asp

```
        115                 120                 125
Asn Ala His Ser Leu Leu Thr Pro Asn Phe Val Asn Glu Thr Ser Thr
    130                 135                 140
Leu Ile Gly Asp Ala Thr Pro Val Cys Phe Phe Phe Pro Arg Ser Leu
145                 150                 155                 160
Lys Leu Met Leu Thr Val Ile Ala Gly Phe Gly Cys Gly Glu Val Ala
                165                 170                 175
Arg Trp Val Val Gly Phe Val Asp Val Ile Gly Met Glu Ser Gly Cys
            180                 185                 190
Ile
```

<210> 30952
<211> 125
<212> PRT
<213> A.fumigatus

<400> 30952

```
Gln Arg Pro Phe Thr Met Ser Leu Asp Glu Thr Leu Ala Glu Lys Lys
1               5                   10                  15
Pro Gln Thr Pro Thr Thr Asn Ser Ile Lys Ser Glu Thr Asn Phe Leu
            20                  25                  30
Asp Ala Leu Asp Ser Leu Glu Ile Leu Pro Gln Ile Leu Gln Glu Gly
        35                  40                  45
Ile Leu Phe Ala Gly Ser Gly Thr Ala Leu Leu Leu Gln Ala Ala Thr
    50                  55                  60
Pro Glu Ile Arg Asn Asp His Asp Lys Ala Asn Asn Gly Pro Asn Val
65                  70                  75                  80
Ala Thr Glu Leu Gly Asn Ala Leu Gln Ala Met Leu Ser Tyr Val Ser
                85                  90                  95
Cys Leu Val Phe Ala Thr Arg Gln Glu Lys Lys Thr Leu Leu Asp Met
            100                 105                 110
Leu Asn Arg Gly Gln Pro Pro Leu Arg Gly Ser Glu His
        115                 120                 125
```

<210> 30953
<211> 169
<212> PRT
<213> A.fumigatus

<400> 30953

```
Tyr Ala Ala Ala Pro Asp Val Gln Leu Trp Ile Ala Ala Thr Leu Tyr
1               5                   10                  15
Ala Thr Ala Thr Asp Phe Tyr Gln Arg Ile Tyr Gly Arg Val Asp Tyr
            20                  25                  30
Arg Thr Ala Glu Lys Ala Tyr Ala Glu Phe Gly Leu Leu Val His Thr
        35                  40                  45
Leu Gly Leu Pro Ser Gly Val Trp Pro Glu Thr Arg Gln Lys Ser Trp
    50                  55                  60
Thr Tyr Trp Asp Asp Arg Ile Glu Arg Leu Thr Val Thr Pro Asp Ala
65                  70                  75                  80
Asn Met Phe Ala Lys Asp Leu Leu His Asp Lys Ala Val Pro Arg Trp
                85                  90                  95
Val Gln Met Leu Lys Pro Phe Leu Arg Val Val Thr Ile Glu Met Leu
            100                 105                 110
Pro Pro Arg Leu Arg Glu Glu Tyr Gly Leu Lys Ser Thr Met Gly Thr
```

```
        115                 120                 125
Arg Gly Leu Tyr Arg Ser Thr Met Gly Phe Ser Asn Ala Val Tyr Pro
    130                 135                 140
Ala Leu Pro Val Ser Leu Arg Ser Tyr Pro Leu Arg Tyr Tyr Leu Asn
145                 150                 155                 160
Glu Leu Arg Lys His Leu Asn Val Val
                165
```

<210> 30954
<211> 128
<212> PRT
<213> A.fumigatus

<400> 30954

```
Cys His Ser His Ala Ser Leu Leu Thr Ala Ser Pro Gly Cys Gly Ile
1               5                   10                  15
Lys Cys Val Ile Ala Lys Ser Phe Ala Phe Ile Phe Gln Arg Asn Met
            20                  25                  30
Pro Asn Leu Gly Leu Leu Gly Ile Thr Met Pro Asn Glu Ser Phe Tyr
        35                  40                  45
Ala Ala Ala Lys Asp Gly Ser Glu Val Ser Ile Asp Leu Leu Ala Gln
    50                  55                  60
Val Ile His Ile Glu Gly Leu Arg Phe Val Phe Gln Leu Ser Gln Met
65                  70                  75                  80
Glu Gln Gly Leu Tyr Arg His Gly Gly Ile Thr Ser Ala Phe Arg Lys
                85                  90                  95
Phe Gly Asn Arg Leu Phe Glu Glu Leu Thr Ala Ala Lys Asn Ile Gly
            100                 105                 110
Thr Ser His Met Glu Glu Lys Cys His Ala Pro Ser Ala Leu Gln Trp
        115                 120                 125
```

<210> 30955
<211> 234
<212> PRT
<213> A.fumigatus

<400> 30955

```
Ala Arg Val Ser Pro His Leu Ser Val Lys Arg Ser Asn Asn Asp Arg
1               5                   10                  15
Ile Asp Leu Asn Phe Lys Pro Asn Glu Tyr Asn Leu Leu Leu Ser Ile
            20                  25                  30
Phe Phe Ile Pro Tyr Val Ile Phe Ala Thr Pro Gly Ala Met Leu Gly
        35                  40                  45
Lys Arg Tyr Ser Pro Ala Arg Val Leu Pro Ile Leu Met Phe Cys Phe
    50                  55                  60
Gly Ser Phe Thr Met Leu Ser Ala Ser Thr Lys Asn Phe Gly Gly Ile
65                  70                  75                  80
Phe Ala Leu Arg Trp Phe Leu Gly Met Cys Glu Ala Pro Phe Phe Pro
                85                  90                  95
Leu Val Ile Tyr Tyr Leu Thr Thr Phe Tyr Arg Arg Gly Glu Leu Ala
            100                 105                 110
Arg Arg Leu Ala Ile Leu Tyr Ala Ala Ser Asn Ile Ala Asn Ala Phe
        115                 120                 125
Ser Gly Met Ile Ala Phe Gly Val Phe Gln Ile Glu Gly Ser Ser Ile
    130                 135                 140
Pro Asn Trp Arg Tyr Leu Phe Ile Ile Glu Gly Gly Ala Thr Val Leu
```

145 150 155 160
Phe Ser Ile Phe Ala Phe Trp Tyr Leu Pro Arg Ser Val Ala Glu Ala
165 170 175
Lys Phe Leu Ser Glu Asp Glu Lys Ala Leu Ala Leu His Arg Ile Gln
180 185 190
Val Asp Ser Ser Ala Ile Val Asn Asp Lys Phe His Leu Arg Asp Ala
195 200 205
Leu Val Ile Phe Lys His Pro Thr Thr Tyr Val Phe Leu Cys Ile Glu
210 215 220
Ile Cys Pro Lys Ser Ser Pro Gly Val Thr
225 230

<210> 30956
<211> 199
<212> PRT
<213> A.fumigatus

<400> 30956
Leu Arg Val Ala Cys Pro Arg Gly Glu Asn Gly Arg Pro Arg Ala Gln
1 5 10 15
Arg Phe Leu Val Lys Gly Glu Ser Asp Gly Ser Ser Asp Leu Met Pro
20 25 30
Gly Glu Lys Glu Tyr Glu Ile Ala Cys Ala Asp Gln Asn Phe Leu Ser
35 40 45
Leu Asn His Leu His Thr Leu Ser Thr Glu Asp Ala Met Thr Glu Leu
50 55 60
Val Lys Tyr Pro Gly Ile Gly Pro Lys Thr Ala Ala Cys Val Ile Leu
65 70 75 80
Phe Cys Leu Gln Arg Pro Cys Phe Ala Val Asp Thr His Ile Phe Arg
85 90 95
Ile Cys Lys Trp Leu Gly Trp Val Pro Pro Gly Lys Ala Thr Glu Val
100 105 110
Thr Ala Phe Ser His Leu Glu Val Arg Ile Pro Asp His Leu Lys Tyr
115 120 125
Ser Leu His Gln Leu Leu Ile Arg His Gly Lys Thr Cys Pro Arg Cys
130 135 140
Arg Ala Ile Thr Gly Gln Ser Ser Ala Gly Trp Glu Asp Gly Cys Val
145 150 155 160
Ile Asp His Leu Val Thr Arg Thr Gly Lys Lys Lys Glu Gly Asn Thr
165 170 175
Asn Val Pro Val Ala Ser Lys Arg Arg Thr Gly Arg Lys Ile Arg Ala
180 185 190
Glu Thr Asp Gly Ser Asp Glu
195

<210> 30957
<211> 298
<212> PRT
<213> A.fumigatus

<400> 30957
Glu Glu Gly Ser Ser Asp Ile Ala Gln Val Arg Ser Pro Ala Leu Asn
1 5 10 15
Thr Gly Ser Ser Glu Glu Val Glu Ala Asn Asn Arg Phe Glu Ile Arg
20 25 30
Arg Tyr Val Leu Asp His Gln Asp Glu Ile Leu Ala Ala Cys Cys Leu

```
        35                  40                  45
Asp Ser Gly Lys Thr Lys Val Asp Ala Ser Phe Gly Glu Ile Leu Val
    50                  55                  60
Thr Ala Glu Lys Leu Lys Trp Thr Ile Asp His Gly Glu Lys Ala Leu
65                  70                  75                  80
Thr Gly Glu Ser Arg Pro Thr Asn Phe Val Met Met Tyr Lys Lys Asn
                85                  90                  95
Val Val Thr Tyr Glu Pro Leu Gly Val Val Ser Ala Cys Val Ser Trp
            100                 105                 110
Asn Tyr Pro Phe His Asn Phe Ile Ser Pro Val Ile Ser Ala Ile Phe
        115                 120                 125
Ala Gly Asn Gly Ile Val Val Lys Pro Ser Glu Gln Thr Ala Trp Cys
    130                 135                 140
Thr Met Phe Phe Leu Glu Ile Ile Arg Gly Ala Leu Ser Ser Cys Gly
145                 150                 155                 160
His Ser Arg Asp Leu Val Gln Ser Val Val Cys Leu Pro Asp Val Ala
                165                 170                 175
Gly Ala Leu Thr Ser His Pro Asp Ile Ser Gln Leu Thr Phe Ile Gly
            180                 185                 190
Ser Arg Pro Val Ala His Lys Val Cys Glu Ser Ala Ala Lys Ala Leu
        195                 200                 205
Thr Pro Val Thr Val Glu Leu Gly Gly Lys Asp Pro Ala Val Ile Leu
    210                 215                 220
Asp Asp Pro Arg Thr Val Ser Glu Val Ser Ser Ile Ala Ser Val Leu
225                 230                 235                 240
Met Arg Gly Val Phe Gln Ser Ala Gly Gln Asn Cys Ile Gly Val Glu
                245                 250                 255
Arg Val Ile Ala Leu Pro Gly Ile Tyr Asp Lys Leu Leu Asp Thr Val
            260                 265                 270
Ala Pro Arg Ile Gln Ala Leu Arg Leu Gly Ser Val Leu Leu Asp Ser
        275                 280                 285
Arg Pro Lys Asp Ala Arg Gln Lys Pro Asn
    290                 295
```

<210> 30958
<211> 134
<212> PRT
<213> A.fumigatus

<400> 30958

```
Lys Asp Gly Ala Thr Leu Leu Ala Phe Leu Tyr Arg Val Pro Ser Arg
1               5                   10                  15
Tyr Glu Pro His Ile Leu Arg Glu Arg Leu Trp Glu Ser Ile Glu Leu
            20                  25                  30
Gln Leu Ile Ala Lys Met Asp Ser Leu Ala Ser Leu Val Pro Pro Ala
        35                  40                  45
Leu Ala Pro Leu Ile Asp Thr Leu Ala Thr Asn Ala Gln Leu Leu Gly
    50                  55                  60
Val Ala Val Ile Ser Val Ala Ala Ile Tyr Leu Gly Tyr Ala Phe Val
65                  70                  75                  80
Leu Asn Ser Lys Glu Ala Ala Val Thr Phe Asn Ile Pro Leu Pro Ala
                85                  90                  95
Glu Val Arg Ala Asn Trp Thr Gly Lys Lys Trp Glu Asp Val Gln Gly
            100                 105                 110
Glu Glu Lys Lys Val Leu Glu Gly Gln Val Arg Gly Val Gly Leu Phe
        115                 120                 125
```

```
Pro Leu Arg Ile Asp Asp
    130

<210> 30959
<211> 170
<212> PRT
<213> A.fumigatus

<400> 30959
Gln Ser Gly Ala Ser Gly Phe Thr Ser Ile Pro Ser Tyr Leu Leu Pro
1               5                  10                  15
Asn Ser His His Ala Asp His Thr Met Arg Phe Thr Thr Ile Val Thr
            20                  25                  30
Pro Leu Leu Ala Ser Ala Thr Leu Ala Ser Ala Phe Cys His Asn Ser
        35                  40                  45
Ile Ser Cys Met Met Gly Gly Asp Ser Thr Cys Asn Asn Val Cys Val
    50                  55                  60
Arg Gln Gly Asn Pro Asn Gly Gly Arg Cys Leu Pro Arg Asp Gly Cys
65                  70                  75                  80
Pro Gly Tyr Asp Ile Cys Ala Cys Tyr Pro Asn Asn Lys Arg Ser Asp
                85                  90                  95
Glu Val Ile Asp Ala Asp Glu Pro Leu Arg Glu Ala Leu Lys Asn Met
            100                 105                 110
Gly Ile Glu Glu Asp Thr Val Glu Lys Leu Glu Ala Arg Asp Ala Ser
        115                 120                 125
Leu Asp Lys Arg Ser Ile Cys Cys Ser Phe Pro Asp Pro Trp Gly Gly
    130                 135                 140
Leu Cys Cys Glu Asp His Cys Ser Tyr Ile Gly Lys Pro Gly Gly Gln
145                 150                 155                 160
Cys Ser Asp Lys Gly Val Cys Thr Cys Asn
                165                 170

<210> 30960
<211> 188
<212> PRT
<213> A.fumigatus

<400> 30960
Leu Asn Leu Ala Ser Val Lys Ala Arg Asn Leu Lys Pro Ile Glu Pro
1               5                  10                  15
Ser Leu Asp Gly Thr Ser Ile Leu Pro Leu Gln Arg Ile His Thr Pro
            20                  25                  30
Cys Asn Cys Leu Val Ala Gly Ala Asn Thr Leu Val Gly Ala Leu Ser
        35                  40                  45
Thr Arg Leu Ser Asn Val Ala Ala Val Ile Leu Thr Ala Glu Ser Ser
    50                  55                  60
Pro Gly Val Gly Glu Ala Ala Ala Asp Ala Ala Leu Ile Gln Gly Gly
65                  70                  75                  80
Ile Ser Ser Phe Gln Leu Leu His Gly Ile Leu Leu Asp Ala His Val
                85                  90                  95
Leu Gln Gly Phe Thr Gln Gly Leu Val Gly Ile Asn His Leu Val Ala
            100                 105                 110
Ala Leu Val Val Arg Val Ala Gly Ala Asp Val Val Ala Gly Ala Ala
        115                 120                 125
Val Ala Gly Glu Ala Ala Ala Ala Val Gly Val Thr Leu Ala His Ala
    130                 135                 140
```

```
Asp Val Val Ala Gly Gly Val Ala Ala His His Ala Gly Asp Gly Val
145                 150                 155                 160
Val Ala Glu Gly Gly Gly Glu Gly Gly Ala Arg Gln Glu Gly Ser Asp
                165                 170                 175
Asp Gly Gly Glu Thr His Cys Val Val Cys Val Val
            180                 185
```

<210> 30961
<211> 224
<212> PRT
<213> A.fumigatus

<400> 30961

```
Leu Ala Phe Glu Ala Cys Ala Asp Leu Ala Asn Glu Ile Leu Glu Lys
1               5                   10                  15
Arg Asn Ile Pro Asp Arg Phe Thr Gly Ala Gln Leu Ile Gln Asp Phe
            20                  25                  30
Val Gly Gln Asn Phe Arg Gly Met Met Ile Ser Leu Gln Ala Lys Tyr
        35                  40                  45
Lys Phe Glu Met Ser Lys Glu Glu Leu Glu Glu Tyr Val Ile Lys Glu
    50                  55                  60
Glu Asp Glu Val Ile Gly Lys Leu Asn Glu Lys Ala Gln Pro Cys Ala
65                  70                  75                  80
Gly Ala Asn Glu Gln Leu Lys Glu Ile Phe Glu Ser Lys Lys Tyr Asp
                85                  90                  95
Leu Ala Val Val Ser Ser Ser Ala Leu Arg Arg Val Lys Ala Ser Ile
            100                 105                 110
Lys Lys Val Gly Gln Asp Lys Tyr Phe Asp Asp Asn Leu Ile Phe Ser
        115                 120                 125
Ala Ala Ser Ser Leu Pro Lys Pro Thr Ser Lys Pro Asp Pro Ala Ile
    130                 135                 140
Tyr Leu His Ala Leu Glu Val Cys Lys Lys Lys Pro Glu Glu Val Val
145                 150                 155                 160
Ala Ile Glu Asp Ser Lys Ser Gly Ala Leu Ser Ala Ile Arg Ala Gly
                165                 170                 175
Ile Pro Val Ile Gly Tyr Val Gly Ser Tyr Pro Gly Asp Glu Lys Lys
            180                 185                 190
Leu Glu Met Ser Gln Arg Leu Glu Glu Leu Gly Ala Lys Val Ile Met
        195                 200                 205
Lys Asp Trp Ser Glu Phe Lys Asn Cys Leu Glu Glu Ile Glu Lys Leu
    210                 215                 220
```

<210> 30962
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30962

```
His Gln Gly Arg Gly Pro Ala His Thr Ser Phe Tyr Ser Leu Asn Cys
1               5                   10                  15
Asp Leu Lys Ser Ile Tyr Gln Phe Pro Ser Gly Asn Ile Ala Gln Ser
            20                  25                  30
Ile Lys Val Gln Val Thr Ser Leu Ala Asp Leu Gln Ala Leu Leu Gly
        35                  40                  45
Ser Phe Leu Leu Ser Lys Leu Phe Lys Arg Pro Ile Gly Arg Ser Val
    50                  55                  60
```

Leu His Ala
65

<210> 30963
<211> 93
<212> PRT
<213> A.fumigatus

<400> 30963
Thr Thr Ala Arg Leu Leu Gly Leu Asn Arg Val Pro Gly Met Ile Phe
1 5 10 15
Asp Phe Leu Ser Leu Ser Asn Ala Glu Thr Arg Val Ser Met His Val
20 25 30
Met Thr Leu Leu Pro Ser Lys His Gln Thr Leu Lys Pro Ser Thr Ala
35 40 45
Pro Val Thr Lys Cys Ile Thr Gln Cys Asp Leu Thr Thr Asp Ser Thr
50 55 60
Gly Cys Leu Tyr Phe His Tyr Leu Ile Lys Gln Asn His Ser Ala Val
65 70 75 80
Leu Tyr Phe Phe Phe Phe Phe Phe Ser Ile Thr Gly Thr
85 90

<210> 30964
<211> 70
<212> PRT
<213> A.fumigatus

<400> 30964
Phe Arg Ser Thr Cys Ile Leu Thr Ser Thr His Pro Tyr Leu Ala Thr
1 5 10 15
Arg Asp Phe Gly Cys Phe Tyr Asn Pro Arg Glu Asn Gln Ser Val Phe
20 25 30
Tyr Phe Ile Leu Cys Ile His Ser Thr Leu Leu Ser Gln Lys Asp Tyr
35 40 45
Thr Glu His Leu Ala Arg Gln Val Ile Gln Gly Thr Tyr Lys Lys Gln
50 55 60
Asn Ser Phe Lys Ser Thr
65 70

<210> 30965
<211> 378
<212> PRT
<213> A.fumigatus

<400> 30965
Arg Thr Pro Leu Val Arg Ala Val Leu Phe Thr Asn Asn Tyr Glu Lys
1 5 10 15
Arg Thr Phe Pro Ala Leu Leu Asp Leu Leu Leu Asp Thr Val Ser Phe
20 25 30
Arg Asp Trp Phe Gly Ala Thr Ile Phe His His Ile Ser Glu Thr Thr
35 40 45
Arg Ser Lys Gly Lys Trp Lys Ser Ser Arg Tyr Tyr Cys Glu Val Leu
50 55 60
Leu Asp Lys Leu His Asn Thr Cys Ser Gln Asp Glu Ile Asp Leu Leu
65 70 75 80
Leu Ser Cys Gln Asp Ser Asn Gly Asp Thr Ala Ala Leu Val Ala Ala

```
                85                  90                  95
Arg Asn Gly Ala Phe Arg Leu Val Asn Leu Leu Leu Gly His Cys Pro
            100                 105                 110
Arg Ala Gly Asp Leu Val Asn Lys Lys Gly Glu Thr Ala Thr Ser Ile
        115                 120                 125
Thr Gln Arg Ala His Leu Pro Glu Gln Asn Ile Pro Pro Pro Pro Ser
    130                 135                 140
Ser Ile Thr Met Gly Ile Asp His Thr Glu Gly Asp Leu Thr Val Leu
145                 150                 155                 160
Glu Thr Pro Asp Gln Thr Asp Ala Leu Pro Ala Glu Ala Ser Leu Ala
                165                 170                 175
Thr Ser Ala Leu Leu Ala Lys Ile Ser Ala Ile Met Ala Glu Thr Asn
            180                 185                 190
Lys Lys Leu Ala Ala Cys Tyr Gly His Thr Lys Ser Asn Glu Pro Val
        195                 200                 205
Ser Asp Asp Val Ala Asn Pro Glu Ala Leu Tyr Glu Gln Leu Glu Val
    210                 215                 220
Asp Arg Gln Lys Ile Gln Glu Gln Thr Ala Ala Leu Glu Ala Lys Glu
225                 230                 235                 240
Thr Glu Gly Glu Pro Val Glu Ala Gln Leu Glu Arg Tyr Glu Arg Leu
                245                 250                 255
Arg Ser Thr Tyr Glu Ser Leu Leu Glu Gln Ile Gln Gln Val Arg Leu
            260                 265                 270
Lys Glu Arg Leu Thr Ser Met Pro Pro Pro Ala Lys Glu Asn Met Met
        275                 280                 285
Pro Ser Ser Ser Asp Gln Asn Gln Leu Leu Ile Thr Tyr Gln Leu Ala
    290                 295                 300
Arg Gln Leu Cys Ser Leu Gln Lys Ala Arg Arg Ala Ala Val Arg Asp
305                 310                 315                 320
Leu Ala Gln Gln Thr Ala Asp Ala Gly Val Ser Thr Lys Phe Asp Val
                325                 330                 335
His Arg Arg Leu Val Ala Leu Ala Thr Gly Leu Lys Glu Glu Glu Leu
            340                 345                 350
Asp Pro Met Ala Ala Glu Leu Ala Glu Thr Leu Glu Phe Asp Arg Met
        355                 360                 365
Asn Gly Arg Gly Pro Gly Arg Arg Ile Thr
    370                 375
```

<210> 30966
<211> 127
<212> PRT
<213> A.fumigatus

```
<400> 30966
Pro Ala Ala Lys Val Phe Tyr Ser Ile Gly Phe Ala Gly Ile Ile Phe
1               5                   10                  15
Ser Val Asp Val Ile Thr Ala Asp Thr Ser Thr Leu Arg Asp Arg Gly
            20                  25                  30
Leu Ala Tyr Ala Phe Thr Ser Ser Pro Tyr Ile Ile Thr Ala Phe Gly
        35                  40                  45
Gly Pro Ala Ala Ala Glu His Phe Tyr Asp Ser Asn Trp Arg Trp Ala
    50                  55                  60
Tyr Gly Cys Phe Ser Ile Val Leu Pro Val Val Ala Leu Pro Met Phe
65                  70                  75                  80
Cys Leu Leu Arg Trp Asn Arg His Lys Ala Lys Lys Ser Gly Leu Leu
                85                  90                  95
```

```
Lys Asp Lys Ala Asp Ser Gly Arg Thr Trp Met Glu Ser Ile Arg His
            100                 105                 110
Tyr Ile Ile Glu Phe Asp Ser Lys Tyr Leu Gly Thr Phe Gly Asp
        115                 120                 125
```

<210> 30967
<211> 315
<212> PRT
<213> A.fumigatus

<400> 30967

```
Ser Val Leu Met Val Val Val Leu Gly Val Phe Phe Leu Ala Ala Gly
1               5                   10                  15
Leu Val Leu Phe Leu Leu Pro Phe Ser Ile Ala Gly Ser Thr Glu Asp
            20                  25                  30
Asp Trp Lys Ser Ala Ser Ile Ile Thr Met Leu Val Ile Gly Phe Val
        35                  40                  45
Cys Leu Leu Val Phe Ala Leu Val Glu Arg Phe Val Ala Pro Val Pro
    50                  55                  60
Phe Leu Pro Trp Ala Leu Leu Ala Ser Arg Thr Val Leu Gly Ala Cys
65                  70                  75                  80
Met Leu Asp Val Cys Tyr Gln Ile Ala Tyr Tyr Cys Trp Phe Asn Tyr
                85                  90                  95
Tyr Thr Ser Tyr Leu Gln Val Val Tyr Gly Thr Ser Ile Thr Thr Ala
            100                 105                 110
Gly Tyr Ile Thr Ser Ile Phe Asp Val Val Ser Gly Val Trp Leu Phe
        115                 120                 125
Ile Val Gly Phe Leu Ile Lys Lys Thr Asn Arg Phe Arg Trp Leu Leu
    130                 135                 140
Phe Ile Ala Val Pro Leu Tyr Ile Leu Gly Val Gly Leu Met Ile Tyr
145                 150                 155                 160
Phe Arg Lys Pro Ser Trp Ser Val Gly Tyr Met Ile Met Cys Gln Ile
                165                 170                 175
Phe Ile Ala Phe Ala Gly Gly Thr Met Ile Ile Cys Gln Gln Val Ala
            180                 185                 190
Val Leu Ala Ala Ser Asp His Asp His Ala Ala Ser Ser Leu Ala Phe
        195                 200                 205
Leu Asn Val Phe Gly Thr Met Gly Ser Ala Val Gly Ser Ser Ile Ser
    210                 215                 220
Gly Ala Ile Trp Thr His Thr Leu Pro Gly Ala Leu Gln Arg Leu Leu
225                 230                 235                 240
Pro Asp Ser Val Lys Ala Asp Trp Gln Thr Ile Tyr Asp Ser Leu Glu
                245                 250                 255
Glu Gln Leu Ser Tyr Glu Arg Gly Thr Leu Ile Arg Gln Ala Ile Ala
            260                 265                 270
Leu Ala Tyr Ala Ser Thr Gln Ser Lys Met Leu Ile Ala Gly Thr Ala
        275                 280                 285
Ile Met Ala Leu Ser Leu Val Trp Met Phe Val Ile Arg Asp Ile Lys
    290                 295                 300
Leu Thr Lys Thr Gln Thr Lys Gly Val Leu Phe
305                 310                 315
```

<210> 30968
<211> 62
<212> PRT
<213> A.fumigatus

<400> 30968
Val Pro His Thr Lys Glu Pro Leu Leu Glu Asn Gln Val Tyr Ser Asn
1 5 10 15
Gln Ser Asp Trp Leu Asp Glu Met Asn Gln Met Leu Ile Gln Asn Ser
20 25 30
Ser Glu Leu Arg Thr Ile Arg Glu Leu Ala Val Ile Val Ser His Gln
35 40 45
Ser Tyr Gln Thr Phe Arg Arg Pro Arg Val Leu Leu Cys Ser
50 55 60

<210> 30969
<211> 73
<212> PRT
<213> A.fumigatus

<400> 30969
Ser Val Leu Ser Leu Arg Phe His Val Arg Glu Met Arg Ala Ser Tyr
1 5 10 15
Gly Ser Trp Pro Thr Thr Pro Met Asn Thr Cys Lys Tyr Asn Ile Cys
20 25 30
Arg Ser Gly Met Asp Phe Glu Thr Asp Leu Lys Cys Arg Phe Phe Lys
35 40 45
Cys Tyr Pro Gln Leu Thr Ala Phe Ser Ser Ser Ala Tyr Ile Val Leu
50 55 60
Thr Ser Ser Thr Phe Leu Val Leu His
65 70

<210> 30970
<211> 421
<212> PRT
<213> A.fumigatus

<400> 30970
Ile Ala Thr Tyr Thr Ser Arg His Ala His Gln Pro Gly Arg Arg Thr
1 5 10 15
Pro Leu Leu Ala Lys Lys Gln Glu Thr His Ile Ser Val Gln Leu Tyr
20 25 30
Thr Tyr Pro Ile Lys Ser Leu Arg Gly Val Ser Leu Ser Glu Ala Thr
35 40 45
Leu Thr Arg Thr Gly Phe Gln Tyr Asp Arg Arg Phe Met Leu Leu Lys
50 55 60
Val Ile Pro Asp Gln Asn Gly Ala Tyr Thr Leu Lys Asn Met His Val
65 70 75 80
Pro His Phe Pro Glu Met Ala Leu Phe Thr Thr Asp Ile Ile Tyr Pro
85 90 95
Asp Glu Glu Lys Gly Ile Pro Gly Arg Ile Ile Val Met Tyr His Pro
100 105 110
Pro Ala Asp Asp Arg Val Asp Asp Gln Asp Lys Ala Thr Lys Thr Leu
115 120 125
Thr Ile Pro Leu Gln Pro Asp Ile Arg Gly Leu Arg Gln Leu Ser Ile
130 135 140
Glu Met His Gln Ser Pro Thr Thr Gly Tyr Asp Met Gly Asp Pro Tyr
145 150 155 160
Asn Ala Trp Phe Ser Glu Arg Phe Gly Tyr Gly Val Val Leu Ala Tyr
165 170 175

```
Leu Gly Pro His Ser Arg Arg Val Leu Gly Ser Phe Ala Pro Gly Lys
            180                 185                 190
Ser Pro Ala His Ala Val Asp Lys Pro Val Val Ser Thr Arg Ser Leu
        195                 200                 205
Val Gly Leu Ala Val Leu Thr Leu Val Leu Asn Gly Val Arg Val Ser
    210                 215                 220
Ala Ser Ala Ser Gly Ala Val Gln Leu Thr Ser Asp Glu Leu Arg Lys
225                 230                 235                 240
His Trp Pro Gly Val Ala Ala Thr Val Val Ala Gly Leu Leu Ser Trp
                245                 250                 255
Ile Leu Leu Arg Gly Leu Ser Ala Gly Gln Asp Asp Glu Ser Ile Thr
            260                 265                 270
Phe Ala Asp Thr Ala Pro Tyr Leu Leu Thr Ser Glu Thr Ser Val Asp
        275                 280                 285
Glu Leu Ser Ala Arg Phe Glu Gly Gly Glu Arg Met Asp Val Thr Lys
    290                 295                 300
Phe Arg Pro Asn Ile Val Val Ser Gly Ala Ala Thr Pro Phe Glu Glu
305                 310                 315                 320
Asp Phe Trp Ala Glu Leu Arg Val Arg Gln Gly Gly Arg Ala Ala Arg
                325                 330                 335
Leu Leu Leu Thr Ala Asn Cys Val Arg Cys Gln Ser Ile Asn Val Asp
            340                 345                 350
Tyr Ala Thr Gly Lys Met Gly Lys Gly Glu Thr Gly Ser Ala Leu Lys
        355                 360                 365
Lys Leu Met Lys Asp Arg Arg Val Asp Lys Gly Ala Lys Tyr Ser Pro
    370                 375                 380
Val Phe Gly Arg Tyr Val Phe Leu Asp Pro Gly Ser Asp Lys Ala Met
385                 390                 395                 400
Ile Gln Val Gly Asp Glu Val Asp Val Leu Arg Thr Met Asp Glu Arg
                405                 410                 415
Thr Val Tyr Gly Gln
            420
```

<210> 30971
<211> 164
<212> PRT
<213> A.fumigatus

<400> 30971

```
Arg Gly Ser Phe Arg Ala Pro Trp Val Lys Thr Gly Pro Ile Asn Asn
1               5                   10                  15
Gly Gly Leu Gly Tyr Asn Ile Val Ser Gly Gly Thr Asp Asn His Leu
            20                  25                  30
Val Leu Val Asp Leu Lys Asn Arg Gly Val Asp Gly Ala Arg Val Glu
        35                  40                  45
Arg Val Leu Glu Leu Cys Gly Val Ala Ser Asn Lys Asn Thr Val Pro
    50                  55                  60
Gly Asp Gln Ser Ala Leu Lys Pro Gly Gly Leu Arg Leu Gly Thr Pro
65                  70                  75                  80
Ala Met Thr Thr Arg Gly Phe Gln Pro Glu Asp Phe Arg Arg Val Ala
                85                  90                  95
Asp Ile Val Asp Arg Ala Val Ile Ile Thr Gln Lys Leu Asp Lys Ala
            100                 105                 110
Ala Lys Glu Ser Ala Ala Ala Lys Gly Val Lys Asn Pro Asn Thr Val
        115                 120                 125
Lys Ala Phe Phe Asp Tyr Val Gly Glu Gly Asp Glu Ile Ser Glu Ile
```

```
    130                 135                 140
Val Leu Leu Arg Lys Glu Val Glu Asp Trp Val Gly Thr Phe Ser Leu
145                 150                 155                 160
Pro Trp Asp Asp
```

<210> 30972
<211> 137
<212> PRT
<213> A.fumigatus

<400> 30972

```
Thr Trp His Thr Glu Lys Leu Trp Pro Glu Leu Val Ser Leu Gln Lys
1               5                   10                  15
Leu Leu Leu Ile Cys Ser His Ala Asp Leu Ile Asp Thr Thr Ala Ser
            20                  25                  30
Asp Glu Thr Lys Thr Asp Ser Lys Ala Ser Lys Thr Asp Ser Ala Ser
        35                  40                  45
Asp Thr Asn Thr Ala Asp Ser Thr Ala Thr Asp Ser Ser Ser Gly Lys
    50                  55                  60
Lys Thr Ser Thr Gly Thr Ala Lys Glu Thr Gly Thr Gln Thr Glu Ser
65                  70                  75                  80
Gly Thr Ser Thr Glu Thr Ala Thr Asp Lys Ser Gly Lys Asn Ser Lys
                85                  90                  95
Thr Lys Thr Ser Thr Lys Ser Thr Ser Ile Asp Pro Arg Leu Pro Ala
            100                 105                 110
Gly Gly Thr Ser Met Leu Ile Pro Thr Ala Gly Ala Thr Thr Tyr Tyr
        115                 120                 125
Lys Ile Gly Asp Tyr Val Thr Phe Ala
    130                 135
```

<210> 30973
<211> 105
<212> PRT
<213> A.fumigatus

<400> 30973

```
Asn Tyr Thr Ser Leu Leu Val Thr Pro Ser Ala Val Asn Val Leu Ala
1               5                   10                  15
Thr Cys Thr Met Asn Ser Ala Thr Tyr Thr Leu Thr Ser Asn Met Ser
            20                  25                  30
Val Glu Glu Thr Gly Lys Val Val Trp Asp Thr Gly Lys Tyr Gln Ala
        35                  40                  45
Asn Ala Thr Val Pro Leu Leu Thr Ala Thr Tyr Thr Leu Tyr Val Val
    50                  55                  60
Asp Val Asp Lys Asp Ile Gly Asp Thr Ala Ser Pro Gly His Leu Gly
65                  70                  75                  80
Ser Gln Asn Gly Tyr Leu Phe Gly Met Tyr Ser Pro Gln Pro Tyr Thr
                85                  90                  95
Pro Leu Asn Gly Met Leu Leu Phe Leu
            100                 105
```

<210> 30974
<211> 118
<212> PRT
<213> A.fumigatus

<400> 30974
Ala Ile Phe Leu Gly Asn Pro Arg Ser Glu Leu Leu Gly Val Lys Glu
1 5 10 15
Arg Pro His Gly Arg Ser Glu Ser Val Leu Ala Arg Leu Leu Arg Ile
20 25 30
Gly Ala Gly Leu Ala Gly Met Cys Ala Phe Pro Ile Tyr Phe Val Phe
35 40 45
Gln Tyr Thr Asp Tyr Ala Ser Gly Phe Ile Pro Met Ile Gly Tyr His
50 55 60
His Val Leu Met Ile Ile Ile Ala Val Ala Ile Ile Leu Leu Cys Glu
65 70 75 80
Phe Ser Val Cys His Met Cys Gly Met Ser Leu Thr Cys Pro Ser Leu
85 90 95
Thr Thr Gly Arg Met Phe Ile Ile Ile Thr Thr Asn Thr Gly Tyr Leu
100 105 110
Ser Asp Ile Phe Ile Leu
115

<210> 30975
<211> 113
<212> PRT
<213> A.fumigatus

<400> 30975
Leu Val Leu Ala Leu Leu Leu Ala Gly Cys Ser Ser Ser Ser Pro Gln
1 5 10 15
Ile Pro Asp Ile Phe Leu Ile Ser Leu Tyr Tyr Glu Arg Tyr Asn Pro
20 25 30
Val Phe Asp Lys Ala Gln Val Asp Pro Gly Val Val Thr Ala Thr Ala
35 40 45
Asn Ile Val Gly Gly Ala Glu Met Glu Val Arg Val Gly Tyr Phe Gly
50 55 60
Ile Cys Val Gln Pro Ala Gly Gly Ala Tyr Ile Cys Asn Ser Asn Ala
65 70 75 80
Thr Ala Leu Ala Glu Ile Val Thr Val Asp Gln Asp Pro Leu Asn Leu
85 90 95
Ile Trp Val Ala Ser Thr Phe Lys Asp Ala Val Val Phe Pro Tyr Leu
100 105 110
Leu

<210> 30976
<211> 460
<212> PRT
<213> A.fumigatus

<400> 30976
Arg Ile Phe Leu Phe Lys Leu Ala Lys Pro Asp Asn Arg Lys Gln Leu
1 5 10 15
Val Val Asp Ser Gly Phe Arg Cys His Val Thr Gln Tyr Ser Arg Ala
20 25 30
Thr Ala Thr Ala Pro Ser Pro Phe Val Thr Arg Met Arg Lys Phe Leu
35 40 45
Lys Ser Arg Arg Leu Thr Ser Ile Glu Gln Ile Gly Thr Asp Arg Val
50 55 60

```
Ile Asp Phe Ser Phe Ser Asp Gly Met Tyr His Met Phe Leu Glu Phe
65                  70                  75                  80
Phe Ala Gly Gly Asn Ile Ile Ile Thr Asp Arg Glu Tyr Asn Ile Leu
                85                  90                  95
Thr Leu Phe Arg Gln Val Pro Ala Gly Val Gly Glu Glu Glu Met Arg
            100                 105                 110
Val Gly Leu Lys Tyr Thr Val Thr Asn Lys Gln Asn Tyr His Gly Val
        115                 120                 125
Pro Glu Ile Thr Phe Glu Arg Ile Lys Glu Thr Leu Glu Lys Ala Lys
    130                 135                 140
Glu Ala Ser Ala Gln Glu Gly Thr Ala Pro Lys Lys Ser Lys Lys Lys
145                 150                 155                 160
Asn Val Asp Val Leu Arg Lys Ala Leu Ser Gln Gly Phe Pro Glu Tyr
                165                 170                 175
Pro Pro Leu Leu Leu Asp His Ala Phe Ala Val Lys Glu Val Asp Pro
            180                 185                 190
Ala Thr Pro Leu Glu Asn Val Leu Gly Asp Asp Thr Leu Met Glu Gln
        195                 200                 205
Val Asn Gly Val Leu Lys Glu Ala Gln Ser Val Thr Ile Lys Leu Ser
    210                 215                 220
Ala Lys Glu Asp His Pro Gly Tyr Ile Val Ala Lys Glu Asp Lys Arg
225                 230                 235                 240
Pro Ser Ala Glu Ser Thr Ala Asp Ala Gly Asp Pro Ser Glu Lys Ala
                245                 250                 255
Gly Leu Phe Tyr Glu Asp Phe His Pro Phe Arg Pro Arg Gln Phe Glu
            260                 265                 270
Gly Asn Pro Glu Val Lys Ile Leu Glu Phe Ser Thr Phe Asn Ala Thr
        275                 280                 285
Val Asp Glu Tyr Phe Ser Ser Leu Glu Thr Gln Lys Leu Glu Ala Arg
    290                 295                 300
Leu Thr Glu Arg Glu Glu Ala Ala Lys Arg Lys Leu Asp Ala Val Arg
305                 310                 315                 320
Gln Glu His Glu Lys Arg Leu Gly Ala Leu Lys Glu Ala Gln Glu Ile
                325                 330                 335
His Val Arg Lys Ala Ala Ala Ile Glu Asp Asn Val Tyr Arg Val Gln
            340                 345                 350
Glu Ala Met Asp Ala Val Asn Gly Leu Ile Ala Gln Gly Met Asp Trp
        355                 360                 365
Val Glu Ile Ala Arg Leu Ile Glu Met Glu Gln Gly Arg Gly Asn Pro
    370                 375                 380
Val Ala Arg Ile Ile Lys Leu Pro Leu Lys Leu Tyr Glu Asn Thr Ile
385                 390                 395                 400
Thr Leu Val Leu Gly Glu Ala Ser Glu Glu Gln Asp Ala Ala Asp Asp
                405                 410                 415
Leu Phe Trp Asp Glu Ser Glu Glu Glu Ser Glu Ser Glu Glu Gln Glu
            420                 425                 430
Ala Ala Arg Lys Ala Ser Glu Met Leu Thr Ile Asp Ile Asp Leu Gly
        435                 440                 445
Leu Ser Pro Trp Ala Asn Ala Thr Gln Tyr Tyr Glu
    450                 455                 460
```

<210> 30977
<211> 83
<212> PRT
<213> A.fumigatus

<400> 30977
Ile Arg Ile Phe Ser Ser Glu Glu Ile Ser Ile Asp Arg Ser Ser Thr
1 5 10 15
Val Phe Val Leu Ile Asp Leu Thr Tyr Arg Gly Lys Val Val Tyr Val
20 25 30
Arg Asn Ser Lys Val Asp Gln Leu Arg Gly Glu Phe Leu Ala Asn Asp
35 40 45
Leu Ser Ser Cys Glu Ile Leu Arg Ile Gln His Gly Gly Leu Ser Cys
50 55 60
Glu Gly Arg Thr Leu Thr Ser Arg Asp Glu Asn Arg Cys Phe Ile Phe
65 70 75 80
Leu Gly Asn

<210> 30978
<211> 313
<212> PRT
<213> A.fumigatus

<400> 30978
Arg Tyr Leu Ser Thr Pro Lys Leu Pro Pro Pro Lys Asn Thr Asp Phe
1 5 10 15
Val Pro Ser Ser Ile Leu Val Glu Pro Thr Thr Thr Thr Gln Leu Ser
20 25 30
Thr Ala Glu Thr Ala Thr Gly Thr Asn Arg Pro Ala Gln Leu Pro Gly
35 40 45
Ser Ile Ser Pro Ala Asn Gly Leu Thr Ser Pro Pro Pro Asp Ser Thr
50 55 60
Leu Ile Gln Leu Gly Phe Asn Gly Lys Leu Arg Tyr Ser Phe Val Ala
65 70 75 80
Thr Thr Pro Leu Ser Ser Ser Gln Ile Phe Leu Tyr Ile Pro Gln Gly
85 90 95
Leu Ile Tyr Ala Leu Glu Ile Leu Gly Lys Asp Ile Ala Met Phe Ala
100 105 110
Ile Gln Pro Tyr Asp Asn Ser Ala Ser Thr Gly Tyr Ile Ala Thr Val
115 120 125
Ala Leu Ala Tyr Ile Pro Thr Asp Lys Val Asp Thr Leu Arg Lys Leu
130 135 140
Leu Arg Ser Pro Leu Ser Lys Leu Tyr Gln Gln Pro Asn Glu Ser Val
145 150 155 160
Lys Thr Leu Phe Ser Met Ile Asp Pro Ser Ile Pro Leu Val Val Gly
165 170 175
Glu Ser Gly Ser Ser Ser Gly Ser Gly Leu Tyr Ser Asp Ser Gly Ile
180 185 190
Ser Gly Ser Gly Ser Ser Ser Asp Gly Asn Gly Ser Gly Ser Asn Ser
195 200 205
Gly Asn Asp Ala Asp Ala Gly Ala Ser Arg Ser Ala Ser Ala Arg Ala
210 215 220
Ser Ser Val Gly Ile Gly Val Gly Val Val Cys Gly Ala Ala Ala Tyr
225 230 235 240
Gly Ala Gly Met Phe Trp Val Ala Arg Arg Tyr Arg Lys Lys Arg Gln
245 250 255
Leu His Arg Arg Ser Asn Ser Thr Met Glu Gln Thr Ser Glu Gly Arg
260 265 270
Gly Ala Gly Ser Leu Phe Ala Ala Gly Gly Arg Leu Ser Arg Asn Ser
275 280 285

```
Gln Asn Ser Arg Gly Ser Gly Arg Gly Gln Met Ile Ser Ala Pro Val
    290                 295                 300
Met Ala Glu Asn Ser Leu Gly Trp Asn
305                 310

<210> 30979
<211> 136
<212> PRT
<213> A.fumigatus

<400> 30979
Gln Leu Gly Leu Ala Val Val Pro Phe Leu Pro Tyr Ile Phe Asp Glu
1               5                   10                  15
Pro Val Gly Glu Ala Val Glu Trp Ser Phe Arg Thr Ala Leu Arg Ala
            20                  25                  30
Tyr Ala Gly Glu Asp Ala Val Arg Pro Phe Pro Ala Pro Ala Thr Ala
        35                  40                  45
Ser Ala Ala His Pro Ala Glu Thr Gly Ala Asp Ala Pro Ser Val Ser
    50                  55                  60
Arg Tyr Leu Lys Thr Gln Ala Glu Lys Asn Ser Ser Val Ala Leu Gly
65                  70                  75                  80
Ala Asp Gly Ser Val Ala Ala Ser Ala Asn Leu Ser Trp Glu Glu Tyr
                85                  90                  95
Lys Ala Glu Arg Gln Lys Ala Lys Glu Glu Arg Arg Arg Gln Arg Glu
            100                 105                 110
Ala Lys Gly Trp Thr Gly Pro Leu Ala Trp Leu Gly Leu Gly Ser Asp
        115                 120                 125
Ser Asp Ser Lys Ser Lys Thr Glu
    130                 135

<210> 30980
<211> 307
<212> PRT
<213> A.fumigatus

<400> 30980
Cys Arg Pro Arg Arg Leu Gln Ser Leu Pro Ala Gln Pro Ala Arg Pro
1               5                   10                  15
Arg Pro Thr Arg Arg Gly Leu Gln Gly Arg Gln Arg Pro Leu Gly Gln
            20                  25                  30
Arg Gly Arg His Gly His Gly Asn Arg Arg His Gly Gln Ser Gln Arg
        35                  40                  45
Arg His Arg Cys Arg Ala Arg Ser Leu Ala Asp Asn Pro His Pro Pro
    50                  55                  60
His Arg Gly Leu Pro His Gly Asn Gly Gln Thr Gly Arg Val Pro Glu
65                  70                  75                  80
His Arg Lys His Gly Ala Ala Gly Val His Asp Pro Leu Gly Gly Glu
                85                  90                  95
Val Leu Arg Ala Asn Asp Glu Glu Gln Gln Glu Arg Leu Cys Ala Asp
            100                 105                 110
Met Asp Pro Tyr Arg Arg Met Phe Pro Ser Thr Arg Ala Ala Leu Gly
        115                 120                 125
Lys Ser Ser Thr Ala Thr Asn Val Asn Cys Asn Asp Ser Trp Ala Leu
    130                 135                 140
Pro Ser Ser Pro Ser Ser His Thr Ser Ser Thr Asn Pro Ser Ala Lys
145                 150                 155                 160
```

```
Gln Trp Asn Gly Pro Ser Gly Pro Leu Ser Ala Pro Thr Gln Ala Arg
                165                 170                 175
Thr Pro Ser Gly Pro Ser Pro Pro Arg Pro Arg Pro Gln Pro Leu Thr
            180                 185                 190
Pro Gln Arg Gln Ala Gln Met His Leu Pro Tyr Arg Asp Thr Ser Arg
        195                 200                 205
Pro Lys Arg Arg Arg Thr His Pro Trp Arg Ser Glu Pro Thr Val Pro
    210                 215                 220
Ser Gln Arg Ala Arg Ile Ser Pro Gly Arg Ser Thr Arg Pro Ser Gly
225                 230                 235                 240
Arg Arg Pro Arg Arg Ser Val Gly Gly Ser Ala Arg Pro Arg Ala Gly
                245                 250                 255
Arg Asp Arg Ser Leu Gly Trp Gly Ser Gly Arg Thr Arg Thr Arg Arg
            260                 265                 270
Val Lys Pro Ser Asn Gly Ser Leu Phe Ser Phe Asn Thr Lys Phe Gly
        275                 280                 285
Trp Ala Gly Ala Gly Arg Phe Met Gly Phe Met Arg Pro Ala Leu Glu
    290                 295                 300
Leu Val Cys
305
```

<210> 30981
<211> 152
<212> PRT
<213> A.fumigatus

<400> 30981

```
Ser Leu Thr His Ile Val Gly Phe Ser Leu Ser Gly Leu Leu Gln Tyr
1               5                   10                  15
Ser Gly Leu Val Pro Ala Gln Gly Val Leu Gly His Asp Arg Ser Thr
            20                  25                  30
Asp His Leu Ala Pro Ala Thr Ser Pro Ala Ile Leu Ala Val Ala Gly
        35                  40                  45
Lys Thr Thr Ala Ser Gly Glu Glu Arg Thr Gly Pro Thr Thr Phe Thr
    50                  55                  60
Arg Leu Leu His Ser Gly Ile Gly Ala Ala Met Gln Leu Thr Leu Leu
65                  70                  75                  80
Ala Val Ala Thr Ser Asn Pro Glu His Thr Arg Thr Ile Ser Cys Ser
                85                  90                  95
Ala Ala Tyr Asp Thr Asn Ala Asp Ala Asn Arg Ala Gly Thr Ser Arg
            100                 105                 110
Ser Ala Ala Thr Gly Thr Gly Ile Arg Ile Val Ala Arg Val Thr Ala
        115                 120                 125
Thr Ala Ile Thr Ile Thr Ala Ala Thr Thr Ala Ala Asp Ser Thr Val
    130                 135                 140
Ala Ile Gln Ser Ala Ala Thr Arg
145                 150
```

<210> 30982
<211> 140
<212> PRT
<213> A.fumigatus

<400> 30982

```
Arg Thr Ala Tyr Gly Ile Ser Trp Thr Tyr Leu Phe Gly Asp Val Ala
1               5                   10                  15
```

```
His Glu Gly Tyr Lys Ala Tyr Leu Arg Asn Arg His Val Leu Ala Pro
            20                  25                  30
Pro Gly Glu Ala Tyr Lys Asp Ala Lys Asp Leu Ser Ala Asn Glu Val
        35                  40                  45
Val Met Gly Met Ala Thr Gly Asp Met Gly Ser Pro Ser Ala Gly Thr
    50                  55                  60
Asp Ala Glu Leu Ala Pro Trp Pro Thr Thr Arg Ile Pro Leu Ile Glu
65                  70                  75                  80
Asp Tyr Arg Met Val Met Val Lys Arg Ala Val Phe Gln Ser Ile Ala
                85                  90                  95
Ser Met Gly Leu Pro Ala Phe Thr Ile His Ser Val Val Lys Tyr Ser
            100                 105                 110
Gly Gln Met Met Lys Asn Asn Lys Asn Val Phe Val Arg Thr Trp Thr
        115                 120                 125
Pro Ile Gly Val Cys Ser Pro Pro Pro Glu Gln Arg
    130                 135                 140
```

<210> 30983
<211> 339
<212> PRT
<213> A.fumigatus

<400> 30983

```
His Ile Thr Arg Ser Met Ser Ser Tyr Asp Val Leu Val Thr Gly Ser
1               5                   10                  15
Ala Gly His Leu Gly Thr Ala Leu Met Leu Ser Leu Pro Glu Leu Gly
            20                  25                  30
Phe Thr Pro Phe Gly Ile Asp Ile Leu Pro Ser Ser Thr Thr Thr Arg
        35                  40                  45
Val Gly Ser Ile Thr Asp Arg Ala Phe Ile Ser Ser Val Leu Met Ser
    50                  55                  60
His Pro Ile Lys His Ile Leu His Ala Ala Thr Leu His Lys Pro His
65                  70                  75                  80
Ile Cys Ser His Gln Asn Glu Asp Phe Val Ala Thr Asn Ile Leu Gly
                85                  90                  95
Thr Leu Val Leu Leu Glu Glu Ser Ala Lys Ser Pro Arg Gln Ile Glu
            100                 105                 110
Ser Phe Ile Phe Phe Ser Thr Thr Ser Thr Phe Gly Met Ala Leu Ser
        115                 120                 125
Pro Lys Pro Gly Ser Pro Ala Ala Trp Ile Asp Glu Thr Val Val Pro
    130                 135                 140
Glu Pro Lys Asn Ile Tyr Gly Val Thr Lys Val Ala Ala Glu Asp Leu
145                 150                 155                 160
Cys Ala Leu Ile His Lys Gln Ser Gly Met Pro Val Leu Val Leu Arg
                165                 170                 175
Thr Ser Arg Phe Phe Pro Glu Glu Asp Asp Asp Glu Gly Arg Arg Ala
            180                 185                 190
Ala Met Ser Asp Glu Asn Leu Lys Val Leu Glu Leu Ala Tyr Arg Arg
        195                 200                 205
Cys Asp Ile Glu Asp Ile Val Arg Ala Ala Val Cys Ala Met Ala Lys
    210                 215                 220
Ala Arg Asp Ile Arg Trp Gly Lys Tyr Ile Ile Ser Ala Pro Pro Leu
225                 230                 235                 240
Phe Lys Asn Asp Ala Arg Thr Leu Asp Gln Leu Asp Arg Asn Pro Ala
                245                 250                 255
Glu Val Phe Asn Glu Leu Cys Pro Glu Leu Gly Ala Val Phe Glu Lys
```

```
            260                 265                 270
Lys Gly Trp Lys His Leu Ser Arg Ile Asp Arg Val Tyr Asp Ser Ser
        275                 280                 285
Lys Ala Met Arg Glu Leu Gly Trp Glu Pro Gln Tyr Thr Phe Ala Lys
    290                 295                 300
Thr Val Glu Arg Leu Ala Met Gly Lys Glu Trp Arg Ser Asp Leu Thr
305                 310                 315                 320
Ala Lys Val Gly Arg Lys Gly Tyr His Ala Val Ser Thr Gly Val Tyr
                325                 330                 335
Thr Lys Arg
```

<210> 30984
<211> 102
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (90)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30984

```
Asp His Cys Leu Ser Gly Thr Thr Ser Gly Asp Ser Pro Arg Asp Leu
1               5                   10                  15
Ser Ile Ile Ala Glu Asn Glu Ile Asp Phe Leu Met Glu Asp Ile Glu
            20                  25                  30
Ile Tyr Ser Gly Gly Thr Pro Val Ser Ser Thr Pro Leu Leu Gly Ser
        35                  40                  45
Phe Leu Pro Ser Leu Arg Leu Ala Thr Leu Ala Asn Ser Ser Val Lys
    50                  55                  60
Leu Pro Gly Leu Ala Gln Pro Asn Leu Val Glu Glu Ile Leu Asp Arg
65                  70                  75                  80
Val Pro Leu Ala Arg Phe Gln Val Cys Xaa Val Ala Phe Tyr Ser Thr
                85                  90                  95
Ile Arg Pro Leu His Ser
            100
```

<210> 30985
<211> 274
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (4)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30985

```
Thr Gly Thr Xaa Leu Gly Val Leu Asp Thr Leu Lys Asn Met Pro Thr
1               5                   10                  15
Glu Leu Pro Pro Gly Thr Val Gly Asn Leu Thr Ala Glu Gln Glu Ala
            20                  25                  30
Lys Leu Gln Glu Phe Trp Ile Leu Leu Leu Lys Val Phe Gly Val Lys
        35                  40                  45
Leu Asp Ala Leu Glu Ser Ala Lys Glu Ala Ser Thr Ser Ala Ser Gln
```

```
    50                  55                  60
Glu Asn Lys Lys Glu Ser Lys Arg Arg Phe Gly Leu Phe Gly Arg Gly
65                  70                  75                  80
Lys Asp Ser Glu Asp Gly Thr Ala Ser Glu Lys Ser Ala Glu Gly Ile
                85                  90                  95
Thr Thr Asn Leu Ala Ser Ile Asn Ile Ser Asp Thr Asp Asp Lys Tyr
            100                 105                 110
Gly Gln Ser Lys Glu Phe Gln Gln Thr Leu Val Asp Met Ser Pro Glu
        115                 120                 125
Asp Ile Arg Thr Thr Phe Trp Thr Met Val Lys Gln Asp Asn Pro Asp
    130                 135                 140
Ser Leu Leu Leu Arg Phe Leu Arg Ala Arg Lys Trp Asp Val Lys Asn
145                 150                 155                 160
Ala Leu Val Met Phe Ile Ser Thr Ile Arg Trp Arg Leu Met Asp Val
                165                 170                 175
Lys Val Asp Asp Asp Ile Met Lys Asn Gly Glu Gln Gln Ala Leu Arg
            180                 185                 190
Gln Ser Gln Ser Ser Asp Pro Ile Glu Lys Lys Ala Gly Glu Glu Phe
        195                 200                 205
Leu Thr Gln Met Arg Arg Gly Lys Ser Phe Leu His Gly Val Asp Lys
    210                 215                 220
Ser Gly Arg Pro Ile Cys Val Val Arg Val Arg Leu His Lys Ala Gly
225                 230                 235                 240
Asp Gln Ser Gln Glu Val Leu Asp Arg Phe Thr Val Tyr Thr Ile Glu
                245                 250                 255
Ser Ala Arg Met Met Leu Ala Pro Pro Val Glu Thr Ala Val Ser Leu
            260                 265                 270
Lys Ser
```

<210> 30986
<211> 64
<212> PRT
<213> A.fumigatus

<400> 30986

```
Pro Thr Ser His Trp Arg Ile Trp Tyr Asp His Asp Leu Gln Ser Ala
1               5                   10                  15
Ile Asn Ile His Leu Pro Arg Gln Asp Tyr Ser Pro Val Lys Phe Met
            20                  25                  30
Ile Lys Cys Phe Glu Ala Asn Tyr Pro Glu Ser Leu Gly Val Val Leu
        35                  40                  45
Ile His Lys Ala Pro Trp Ile Phe Ser Gly Leu Ser Ser Phe Leu Asn
    50                  55                  60
```

<210> 30987
<211> 170
<212> PRT
<213> A.fumigatus

<400> 30987

```
Lys Pro Tyr Val Leu Lys Tyr Phe Cys Thr Gly Ile Trp Asn Ile Ile
1               5                   10                  15
Lys Gly Trp Leu Asp Pro Val Val Ala Ala Lys Val His Phe Thr Lys
            20                  25                  30
Asn Val Lys Asp Leu Glu Gln Phe Ile Pro Arg Asp Arg Ile Met Lys
```

```
        35                  40                  45
Glu Leu Glu Gly Asp Glu Asn Trp Glu Tyr Lys Tyr Leu Glu Cys Glu
    50                  55                  60
Pro Asp Glu Asn Lys Pro Met Glu Asp Thr Ala Lys Arg Asp Lys Leu
65                  70                  75                  80
Leu Ala Glu Arg His Glu Leu Gly Lys Glu Ile Gln Asn Ala Thr Ile
                85                  90                  95
Ser Trp Ile Ala Ala Ser Ser Lys Gly Asp Lys Asp Ala Val Ala Thr
            100                 105                 110
Ala Lys Asp Lys Arg Lys Asp Leu Ile Glu Arg Leu Arg Glu Gln Tyr
        115                 120                 125
Trp Gln Leu Asp Pro Tyr Val Arg Ala Arg Ser Leu Tyr Asp Arg Leu
    130                 135                 140
Asn Val Ile Gln Gly Asn Gly Lys Ile Asp Phe Tyr Ser Ala Glu Ser
145                 150                 155                 160
Met Ser Lys Gly Asn Ala Ala Ser Ser Gln
                165                 170
```

<210> 30988
<211> 97
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (95)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30988

```
Glu Asp Ile Cys Cys Ile Arg Arg Asp Ala Ala Ile Ala Ser Val Ile
1               5                   10                  15
Tyr Leu Glu Gln Ala Ile Ala Lys Thr Pro Gly Ser Ala Ala Ser Leu
            20                  25                  30
Leu Gly Ser Leu Leu Gln Gly Gln Gly Ser Ala Pro Leu His Val Ile
        35                  40                  45
Glu Leu Gly Ser Gly Cys Gly Ile Val Gly Ile Ala Leu Ala Glu Leu
    50                  55                  60
Val Pro His Cys Ser Val Leu Leu Thr Asp Leu Asp Glu Val Glu Glu
65                  70                  75                  80
Ile Val Met Lys Asn Ile Ala Val Ala Gly Pro Ala Ser Leu Xaa Pro
                85                  90                  95
Gly
```

<210> 30989
<211> 219
<212> PRT
<213> A.fumigatus

<400> 30989

```
Pro Gln Ile Arg Glu Gln Ser Val Lys Phe Phe Gly Gln Asn Pro Ser
1               5                   10                  15
Thr Asp Asn Asn Arg Asn Ser Ala Cys Ala Thr Leu Phe Asn Leu Lys
            20                  25                  30
Thr Arg Asn Leu Thr Ile Leu Thr Ile His Leu Trp Ala Pro Cys Gln
        35                  40                  45
```

```
Pro Pro Met Ser Ile His Ile Pro Leu Arg Arg Ser Ala Val Thr Thr
    50                  55                  60
Ala Arg Val Gln Thr Ser Thr Thr Tyr Ile Cys Ser Gln Cys Arg His
65                  70                  75                  80
Ala Thr Leu Leu Arg Arg Pro Lys Arg Pro Tyr Thr Phe Thr Gln Leu
                85                  90                  95
Ile Thr Leu Ser Asp Gly Ser Thr Phe Thr His Arg Thr Thr Ser Pro
            100                 105                 110
Thr Pro Val Tyr Arg Ser Thr Arg Asp Thr Arg Asn Ser Leu Leu Trp
        115                 120                 125
Asn Pro Ser Ser Ser Lys Leu Met Asn Val Glu Glu Asp Glu Ala Gly
    130                 135                 140
Arg Leu Ala Ala Phe Arg Ala Lys Phe Gly Arg Ser Trp Asp Ala Asn
145                 150                 155                 160
Thr Pro Ala Glu Gly Asp Thr Asp Thr Glu Val Ala Ala Lys Gly Lys
                165                 170                 175
Glu Ala Ala Asp Ala His Ala Ala Ala Ala Ala Glu Ala Ala Leu Ala
            180                 185                 190
Glu Glu Glu Asp Asp Asn Leu Leu Asp Leu Ile Ser Ser Phe Gly Gln
        195                 200                 205
Glu Met Glu Gln Glu Pro Pro Lys Lys Lys Lys
    210                 215
```

<210> 30990
<211> 274
<212> PRT
<213> A.fumigatus

<400> 30990

```
Ile Leu Arg Pro Phe Lys Ser Leu Lys Ser Arg Ala Arg Ser Ile Leu
1               5                   10                  15
Ala Met Ala Ser Arg Arg Ser Arg Ser Pro Ser Thr Pro Ser Glu Gly
            20                  25                  30
Glu Ile Ile Glu Ser Gly Ser Glu Thr Lys Ala Thr Thr Ser Gln Leu
        35                  40                  45
Pro Leu Asn Gly Thr Ser Val Asp Arg Gln Thr Arg Val Ser Thr Ser
    50                  55                  60
Ser Ala Leu Arg Ser Pro Ala Ser Val Ser Arg Ser Pro Arg Gln Arg
65                  70                  75                  80
Arg Ser Arg Ala Arg Thr Trp Ser Arg Ser Arg Ser Arg Ser Arg Ser
                85                  90                  95
Arg Ser Pro Tyr Arg Asp His Arg Gly Gln Lys Arg Arg His Ala Asp
            100                 105                 110
Asp Tyr Asn Glu Arg Arg Tyr Arg Asn Glu Pro Ser Arg Arg Gly Gly
        115                 120                 125
Pro Arg His Asn Asp Asp Arg His Tyr Asn Arg Gly Pro Ala Ser His
    130                 135                 140
Ile Arg Ser Arg Pro Tyr His Asp Tyr Asp Arg Asp Asp Tyr Tyr Gly
145                 150                 155                 160
Gly Gly Leu Arg Tyr Thr Asp Asp Tyr Asp Arg Arg Gly Asp Lys Arg
                165                 170                 175
Pro Arg Thr Arg Ser Arg Ser Pro Tyr Arg Glu Val Arg Lys Pro Lys
            180                 185                 190
Gln Tyr Ser Gly Asp Glu Trp Asp Ser His Arg Glu Gly Ser Val Ala
        195                 200                 205
Ser Arg Asp Thr Glu Arg Gln Arg Ser Ser Thr Glu Gln Leu Val Ser
```

```
    210                 215                 220
Glu Arg Gly Lys Pro Pro Val Val Ala Gln Asp Ser Arg Gln Asp Ala
225                 230                 235                 240
Glu Val Arg Lys Asn Gln Val Leu Gln Val Pro Ser His Pro Ser Ser
                245                 250                 255
Leu Val Glu Asp Arg Tyr Gly Cys Pro Gly Pro Leu Leu Arg Phe Met
            260                 265                 270
His Arg
```

<210> 30991
<211> 237
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (33),(87)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30991

```
Ile Thr Gly Thr Ile Gln Lys Gly Tyr Tyr Asn Val Arg Arg Gly Glu
1               5                   10                  15
Leu Ile Asn Glu Arg Tyr His Val Lys Gln Asn Leu Gly Lys Gly Met
            20                  25                  30
Xaa Ser Ser Val Val Arg Ala Thr Asp Ala Lys Thr Gly Gly Phe Val
        35                  40                  45
Ala Ile Lys Ile Ile Arg Gln Asn Asp Thr Met Arg Lys Ala Gly Leu
    50                  55                  60
Lys Glu Ile Gly Ile Leu Glu Gln Leu Arg Glu Ala Asp Pro Glu Asp
65                  70                  75                  80
Lys Lys His Val Ile Arg Xaa Glu Arg His Phe Asp His Lys Gly His
                85                  90                  95
Leu Cys Met Val Phe Glu Asn Leu Ser Met Asn Leu Arg Glu Val Leu
            100                 105                 110
Lys Lys Phe Gly Arg Asp Val Gly Leu Asn Leu Arg Ala Ile Arg Ala
        115                 120                 125
Tyr Ala Gln Gln Ile Phe Leu Gly Leu Ser Leu Leu Arg Lys Cys Asn
    130                 135                 140
Ile Leu His Ala Asp Leu Lys Pro Asp Asn Leu Leu Val Asn Glu Gln
145                 150                 155                 160
Arg Asn Val Leu Lys Val Cys Asp Leu Gly Ser Ala Ser Pro Ala Thr
                165                 170                 175
Asp Asn Glu Ile Thr Pro Tyr Leu Val Ser Arg Phe Tyr Arg Ala Pro
            180                 185                 190
Glu Ile Ile Leu Gly Ile Pro Tyr Asp His Ala Ile Asp Val Trp Ser
        195                 200                 205
Ile Gly Cys Thr Leu Phe Glu Leu Tyr Thr Gly Lys Ile Leu Phe Thr
    210                 215                 220
Gly Arg Asn Asn Asn Gln Met Leu Arg Ser Ile Val Phe
225                 230                 235
```

<210> 30992
<211> 161
<212> PRT
<213> A.fumigatus

<400> 30992
Thr Asn Ser Ala Leu Leu Ile Ala Ser Pro Gln Leu Ser Ala Ala Glu
1 5 10 15
Ala Pro Asn Asp Ser Ala Gly Asp Ser Phe Pro Glu Phe Gly Asn Asp
20 25 30
Thr Asp Ile Ala Asn His Asp Ala Pro Thr Asp Gly Ala Asp Lys Asp
35 40 45
Glu Pro Ser Ala Ala Asp Tyr Asp Pro Thr Ile Asp Met Lys Ala Glu
50 55 60
Arg Gln Lys His Asp Ala Gly Asp Ser Asn Gly Asp Val Ser Ser Ala
65 70 75 80
Arg Tyr Asp Glu Thr Gln Thr Thr Lys Gln Asp Val Leu Met Pro Asp
85 90 95
Ala Pro Gln Ala Gln Gln Ser Glu Ser Lys Ala Lys Asp Pro Tyr Asp
100 105 110
Met Phe Ala Glu Asp Asp Asp Asp Met Phe Ala Glu Asp Lys Glu Glu
115 120 125
Thr Thr Gln Pro Thr His Ala Ser Ala Val Pro Val Pro Gln Pro Gln
130 135 140
Glu Leu Asp Ile Ser Met Met Asn Asn Trp Asp Asp Pro Glu Gly Val
145 150 155 160
Leu

<210> 30993
<211> 174
<212> PRT
<213> A.fumigatus

<400> 30993
Ser Pro Cys Ser Ser Thr Ala Asn Ser Phe Leu Asp Ser His Phe Gln
1 5 10 15
Val Arg Ala Val Ala Tyr Pro Asn Pro Asn Val Val Ile Ser Ala Ser
20 25 30
Arg Asp Ala Thr Val Arg Leu Trp Lys Leu Val Ser Thr Pro Pro Pro
35 40 45
Val Tyr Asp Ser Thr Val Ser Ser His Gly Ser Ala Phe Val Asn Ala
50 55 60
Val Ala Tyr Tyr Pro Pro Thr Ser Glu Phe Pro Glu Gly Leu Val Leu
65 70 75 80
Ser Gly Gly Gln Asp Thr Ile Ile Glu Ala Arg Gln Pro Gly Lys Thr
85 90 95
Pro Asp Asp Asn Ala Asp Ala Met Leu Leu Gly His Gly His Asn Val
100 105 110
Cys Ala Leu Asp Val Cys Pro Glu Gly Gly Trp Val Ile Ser Gly Ser
115 120 125
Trp Asp Ser Thr Ala Arg Leu Trp Arg Val Gly Lys Trp Glu Cys Asp
130 135 140
Val Val Met Glu Gly His Gln Gly Ser Val Trp Ala Val Leu Ala Tyr
145 150 155 160
Asp Lys Asp Thr Val Ile Thr Gly Ala Ser Ile Ala Ser Arg
165 170

<210> 30994
<211> 345

<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (336)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 30994

```
Pro Gly Cys Ala Asp Lys Ile Ile Arg Ile Phe Asn Thr Ser Gly Asp
1               5                  10                  15
Leu Val Arg Ser Ile Lys Asp Ser Arg Asp Val Val Arg Ala Leu Cys
            20                  25                  30
Lys Leu Pro Ala Ser His Pro Ser Gly Ala His Phe Ala Ser Ala Ser
        35                  40                  45
Asn Asp Gly Ile Ile Arg Leu Phe Thr Leu Gln Gly Glu Leu Ile Ser
    50                  55                  60
Glu Leu Leu Gly His Glu Ser Phe Ile Tyr Ser Leu Asp Val Leu Pro
65                  70                  75                  80
Thr Gly Glu Leu Val Ser Ser Gly Glu Asp Arg Thr Val Arg Ile Trp
                85                  90                  95
Asn Gly Thr Gln Cys Val Gln Thr Ile Thr His Pro Ala Ile Ser Val
            100                 105                 110
Trp Gly Val Ala Ala Cys Arg Glu Asn Gly Asp Ile Val Thr Gly Ala
        115                 120                 125
Ser Asp Arg Val Thr Arg Ile Phe Ser Arg Asn Glu Glu Arg Val Ala
    130                 135                 140
Ser Pro Glu Val Val Gln Gln Phe Asp Lys Ala Val Lys Glu Ser Ala
145                 150                 155                 160
Ile Pro Glu Gln Gln Val Gly Lys Ile Asn Lys Glu Lys Leu Pro Gly
                165                 170                 175
Pro Glu Phe Leu Lys Gln Lys Ser Gly Thr Lys Glu Gly Gln Val Gln
            180                 185                 190
Met Val Arg Glu Ala Asp Gly Ser Val Thr Ala His Thr Trp Ser Ala
        195                 200                 205
Ala Ser Gln Glu Trp Ile Ala Val Gly Thr Val Val Asp Ser Ala Ala
    210                 215                 220
Ser Ser Gly Arg Lys Ile Ala Tyr Met Gly Gln Asp Tyr Asp Tyr Val
225                 230                 235                 240
Phe Asp Val Asp Val Glu Asp Gly Lys Pro Pro Leu Lys Leu Pro Tyr
                245                 250                 255
Asn Ile Ser Gln Asn Pro Tyr Glu Ala Ala Thr Lys Phe Ile Gln Asp
            260                 265                 270
Asn Glu Leu Pro Met Ser Tyr Leu Asp Gln Val Ala Gln Phe Ile Val
        275                 280                 285
Gln Asn Thr Gln Gly Thr Thr Leu Gly Gln Pro Val Gln Glu Pro Ala
    290                 295                 300
Pro Thr Gly Ala Asp Pro Trp Gly Gln Glu Arg Arg Tyr Arg Pro Gly
305                 310                 315                 320
Asp Ala Ile Ala Thr Ala Val Asp Pro Thr Pro Ala Val Tyr Thr Xaa
                325                 330                 335
Asp Gly Trp Lys Asp Thr Ser Trp Tyr
            340                 345
```

<210> 30995
<211> 60

<212> PRT
<213> A.fumigatus

<400> 30995
Gly Leu Ser Glu Asn Ala Ser Pro Asn Thr Lys Pro Ala Gly Leu Gly
1 5 10 15
Leu Ser Pro Pro Leu Pro Leu Leu Tyr Phe Leu Asp Leu Phe Asn Leu
20 25 30
Phe His Met Tyr Leu Gln Ala Leu Thr Asn Met Leu Leu Ser Ser Leu
35 40 45
Leu Leu Leu Ala Arg Cys Ser Asp Gln Ala Ala Glu
50 55 60

<210> 30996
<211> 391
<212> PRT
<213> A.fumigatus

<400> 30996
Leu Arg Gly Pro Phe His Pro Val Val Lys Thr Phe Ala Ala Ala Ile
1 5 10 15
Ser Met Ala Gly Asp Leu Leu Pro Met Met Ser Leu Leu Val Met Phe
20 25 30
Ser Val Val Val Phe Phe Thr Asp Arg Pro Leu Arg Ala Pro Val Ala
35 40 45
Phe Thr Ser Leu Ser Ile Met Glu Thr Leu Arg Ser Gln Phe Val Trp
50 55 60
Leu Ser Asn Ile Ser Arg Tyr Ser Ala Gln Gly Ala Glu Ser Leu Arg
65 70 75 80
Arg Val Asp His Phe Phe Asp Thr Ala Gly Glu Ile Arg Arg His Pro
85 90 95
Asp Gly Pro Leu Glu Leu Lys His Ala Thr Phe Arg Arg Thr Pro Ile
100 105 110
Ala Asp Phe Arg Leu His Asp Ile Ser Val Ser Phe Lys Gln Ser Ala
115 120 125
Leu Asn Val Val Ala Gly Pro Thr Gly Ser Gly Lys Thr Ser Leu Leu
130 135 140
Leu Ser Leu Leu Gly Glu Thr Val Leu Glu Ser Gly Thr Ala Thr Cys
145 150 155 160
Pro Gln Asp Val Ala Tyr Val Pro Gln Ser Pro Trp Leu Gln Asn Asp
165 170 175
Thr Ile Arg Gln Asn Ile Ile Phe His Ser Ser Phe Asp Glu Ala Arg
180 185 190
Tyr Asn Thr Val Ile Glu Ala Ser Gly Leu Ile Gln Asp Leu Gln Gln
195 200 205
Leu Pro Ala Gly Asp Leu Thr Leu Val Gly Glu Arg Gly Thr Ser Leu
210 215 220
Ser Gly Gly Gln Lys Gln Arg Val Ser Leu Ala Arg Ala Leu Tyr Ser
225 230 235 240
Arg Ser Ser Thr Leu Leu Leu Asp Asp Ile Phe Ser Ala Leu Asp Thr
245 250 255
His Thr Thr Thr Leu Val Tyr Asp Lys Cys Phe Arg Ser Gly Leu Leu
260 265 270
Ala Asp Arg Thr Val Val Leu Val Thr His Leu Pro Ala Ala Leu Lys
275 280 285
Asp Ala Asp Gln Ile Val Gln Leu Asn His Gly Arg Ala Ser Val Ile

```
    290                 295                 300
Lys Thr Ala Ser Glu Ser Ser Arg Ala Gln Thr Arg Ser Val Leu Asp
305                 310                 315                 320
Leu Val Glu Glu Ser Glu Gln Asp Ala Ala Thr Ser Gly Pro Pro Thr
                325                 330                 335
Thr Ala Glu Gly Ser Ser Thr Glu Ser Glu Ala Thr Val Asn Val Leu
            340                 345                 350
Pro Phe Ala Asp Gln Ser Val Gln Thr Ser Arg Ile Val Lys Glu Met
        355                 360                 365
Ser Ala Thr Gly Arg Val Pro Arg Thr Leu Cys Glu Phe Ile Pro Ala
    370                 375                 380
Glu Pro Arg Ser His Arg Cys
385                 390
```

<210> 30997
<211> 391
<212> PRT
<213> A.fumigatus

<400> 30997

```
Thr Ser Ser Lys Ser Gln Asn Lys Thr Gln Gln Pro Ala Val Leu Gln
1               5                   10                  15
Gln Leu Gln Lys Gly Leu Leu Pro Asn Gln Lys Pro Pro Ser Met Ser
            20                  25                  30
Cys Leu Ser Gln Thr Asn Leu Tyr Arg Gln Val Ala Leu Ser Lys Lys
        35                  40                  45
Cys Arg Leu Gln Val Ala Phe His Val His Tyr Val Ser Leu Tyr Gln
    50                  55                  60
Leu Ser His Val Val Ile Asp Ala Asn Ile Ser Leu Val Leu Arg Tyr
65                  70                  75                  80
Met Leu Leu Phe Gly Gly Val Ser Tyr Ala Met Ala Met Met Leu Ala
                85                  90                  95
Thr Val Thr Val Gln Phe Ala Tyr Phe Ser Ile Thr Tyr Trp Leu Ser
            100                 105                 110
Ile Trp Thr Ser Ala Tyr Glu Lys Tyr Asp His Pro Asn Ser Leu Phe
        115                 120                 125
Tyr Leu Ala Val Tyr Ala Ala Ala Ile Val Ser Phe Leu Leu Leu Gln
    130                 135                 140
Ile Thr Asn Asn Leu Leu Tyr Gln His Gly Ser Trp Thr Ala Ala Lys
145                 150                 155                 160
Lys Met His Arg Lys Leu Val Glu Ala Val Leu Ser Ala Pro Ile Ser
                165                 170                 175
Trp Phe Asp Glu Asn Pro Ile Gly Arg Ala Ile Asn Arg Phe Gly Asn
            180                 185                 190
Asp Thr Arg Ser Met Asp Thr Val Leu Ile Asp Trp Leu Arg Met Ser
        195                 200                 205
Ile Glu Asn Gly Leu Arg Phe Leu Leu Arg Ile Ala Ser Ile Ala Ser
    210                 215                 220
Ile Met Pro Ile Phe Ala Leu Pro Ala Ala Val Val Cys Thr Ile Gly
225                 230                 235                 240
Phe Leu Ile Gly Glu Met Tyr Thr Arg Ala Gln Ile Ser Ile Lys Arg
                245                 250                 255
Leu Cys Ser Ile Asn Tyr Ser Pro Ile Phe Ser His Phe Thr Asp Ser
            260                 265                 270
Leu Ala Gly Met Thr Val Ile Arg Ala Arg Glu Gly Met Thr Gly Val
        275                 280                 285
```

```
Phe Gln Arg Leu Leu Ala Glu Lys Leu Ala Val His Ala Arg Ser Ala
    290                 295                 300
Glu Ala Gln Tyr Asn Cys Asn Arg Trp Val Ser Val Arg Ser Asp Leu
305                 310                 315                 320
Cys Ala Ala Ser Val Ala Ala Ser Ala Gly Cys Val Ala Tyr Phe Trp
                325                 330                 335
Ser Gly Ser Ala Gly Leu Val Gly Phe Ser Leu Thr Asn Ala Ile Gly
            340                 345                 350
Leu Ser Gln Thr Ile Leu Thr Leu Val Arg Thr Met Asn Asp Leu Glu
        355                 360                 365
Val Gln Leu Asn Ser Phe Pro Thr Asn Lys Pro Asn Thr Pro Lys Ser
    370                 375                 380
Asn Leu Lys Glu Glu Thr Glu
385                 390
```

<210> 30998
<211> 67
<212> PRT
<213> A.fumigatus

<400> 30998

```
Ser Glu Ile Ala Ser Gly Lys Leu Leu Lys Ile Leu Asp Glu Ala Thr
1               5                   10                  15
Gly Phe Asn Asp Gly Ile Val Pro Gly Leu Val Lys Arg Ala Val Lys
            20                  25                  30
Tyr Tyr Val Leu Ser Asn Gly Ile Ile Leu Gln Pro Trp Arg Leu Trp
        35                  40                  45
Tyr Ile Gly His Ile Leu Arg Ala Gly Ser Ser Ser Arg Leu Lys Tyr
    50                  55                  60
Ser Leu Thr
65
```

<210> 30999
<211> 240
<212> PRT
<213> A.fumigatus

<400> 30999

```
Lys Arg Trp Cys Asn Ser Gly His Tyr Ser Arg Arg Leu Gly Arg Arg
1               5                   10                  15
Lys Val Ser Thr Ser His Ile Pro Ala Pro Gln Lys Thr Ser Lys Leu
            20                  25                  30
Thr Ser Tyr Gly His Ser Ser Leu Arg Glu Val Pro Asp His Gln Glu
        35                  40                  45
Leu Phe Leu Ser Pro Thr Thr Leu Ser Ser Phe Ile Val Glu Val Asn
    50                  55                  60
Gln Arg Val Thr Gln Glu Gln Ala Leu Ser Thr Leu Asp Ala Gln Ala
65                  70                  75                  80
Ala Val Pro Gly Gly Ile Pro Ala Thr His Glu Thr Ile Asp Lys Ala
                85                  90                  95
Ala Val Met Tyr His Leu Arg Asp Leu Cys Asp Glu Asp Asp Thr Leu
            100                 105                 110
Gln Val Ile Ile Pro Ala Thr Ala Val Thr Pro Ala Lys Ile Pro Ala
        115                 120                 125
Ser Ala Arg Ala His Ala Tyr Lys Gly Val Val Gln Met Thr Thr Pro
    130                 135                 140
```

```
Lys Arg Gln Arg Arg Asp Thr Asn Thr Gly Arg Ile Pro Val Ser Val
145                 150                 155                 160
Gly Gly Ala Ala Ala Gly Ser Ser Ala Asp Gly Pro Gln Thr Ser Arg
                165                 170                 175
Val Thr Val His Tyr Leu Leu Val Arg Leu Glu Ala Gln Glu Ser Asp
            180                 185                 190
Leu Leu Ile Phe Phe Asn Val Pro His Asp Glu Phe Asp Leu Ser Gly
        195                 200                 205
Asp Pro Arg Gly Leu Ser Lys Glu Glu Glu Val Ala Thr Glu Ala Ile
    210                 215                 220
Asp Arg Leu Val Gln Thr Leu Glu Ile Arg Asp Trp Ala Leu Phe Ala
225                 230                 235                 240
```

<210> 31000
<211> 109
<212> PRT
<213> A.fumigatus

```
<400> 31000
Thr Gly Met His Leu Cys Leu Lys Leu Ile Pro Cys Ala Lys Thr Ser
1               5                   10                  15
Leu Lys Ser Thr Phe Thr Asn Leu Arg Ser Asp Gly Leu His Gln Asp
            20                  25                  30
Ser Ala Thr Ser Arg Glu Ser Gly Thr Ser Ser Thr Arg Leu Glu Lys
        35                  40                  45
Ser Gln Tyr Arg Leu Arg Glu Asp Val Glu Gly Leu Glu Asp Asn Ala
    50                  55                  60
Leu Glu Val Tyr Tyr Pro Leu Gln Thr Gly Asp Glu Ser Asp Cys Gly
65                  70                  75                  80
Arg Tyr Trp Leu Val His Lys Pro Gly Tyr Gly Gly Tyr Ser Thr Ile
                85                  90                  95
Trp Leu Ala Arg Asp Leu Gln Arg Ala Arg Tyr Trp Glu
            100                 105
```

<210> 31001
<211> 212
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (57)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 31001
Thr Phe Arg Lys Gly Ile Glu Val Thr Cys Cys Leu Ser Leu Leu Lys
1               5                   10                  15
Ser Gly His Val Ile Asp Phe Asp Asn Leu Ala Met Arg Leu Pro Tyr
            20                  25                  30
Val Phe Asp Ser Pro Pro Thr Ser Thr Pro Glu Glu Ala Glu Ile Leu
        35                  40                  45
Ala Arg Val Lys Ala Arg Arg Ala Xaa Gly Asp Leu Leu Pro Leu Asp
    50                  55                  60
Arg Ala Leu Leu His Ser Phe Pro Val Ala Asp Gly Trp Asn Ser Phe
65                  70                  75                  80
Ile Gly Ala Ile Arg Thr Lys Thr Thr Leu Ser Thr Ile Ile Lys Glu
```

```
                85                  90                  95
Leu Ile Ile Cys Arg Val Ala Val Leu Asn Gly Ala Trp Phe Glu Trp
            100                 105                 110
Glu Gln His Ala Pro Leu Leu Glu Glu Gly Gly Leu Gly Asp Glu Gly
        115                 120                 125
Met Arg Val Val Arg Asp Ile His Ala Asp Ile Ser Leu Asn Ile Glu
    130                 135                 140
Glu Lys Ala Leu Ser Pro Ala Glu Gly Ala Val Leu Lys Tyr Thr Asp
145                 150                 155                 160
Ala Met Thr Lys Thr Val Thr Val Pro Asp Glu Val Phe Gln Glu Leu
                165                 170                 175
Lys Gly Phe Phe Asn Glu Arg Glu Ile Val Glu Ile Thr Thr Thr Val
            180                 185                 190
Ala Ala Tyr Asn Cys Val Ser Arg Phe Leu Val Ala Leu Asn Val Gly
        195                 200                 205
Glu Lys Asn Pro
    210
```

<210> 31002
<211> 74
<212> PRT
<213> A.fumigatus

<400> 31002

```
Cys Glu Arg Asn Arg Gln Arg Ser Cys Asn Thr Asp Phe His Ser Leu
1               5                   10                  15
Ser Phe Ala Glu Ser Pro Ser Leu Ser Ser Ser Lys Phe Asp Tyr Phe
            20                  25                  30
Lys Tyr Leu Leu Asp Val His Glu Ile Phe Arg Val His Ile Ala Ser
        35                  40                  45
Leu Gln His Val Ser Ile Lys Cys Met Thr Asn Gly Phe Gly Leu Pro
    50                  55                  60
Leu Gln Leu Arg Leu Thr Ser Ser Lys Leu
65                  70
```

<210> 31003
<211> 156
<212> PRT
<213> A.fumigatus

<400> 31003

```
Gly Cys Thr Met Thr Cys Gln Asp Arg Pro Tyr Ser Arg Asp Pro His
1               5                   10                  15
Asn Asp Ile Arg Ile Thr Leu Tyr Ser Asn Leu Asn Trp Lys His Asn
            20                  25                  30
Asp Ala His Ser Ile Asn Cys Pro Gln Tyr Lys Tyr Thr Leu Ser Ala
        35                  40                  45
Ser Pro Leu Ile Phe Asn Tyr Arg Leu Arg Lys Lys Arg Ser Leu Pro
    50                  55                  60
Lys Tyr Pro Glu Thr Ile Met Pro Ser Gly Phe Ala Ser Asn Asn Leu
65                  70                  75                  80
Tyr Trp Glu Thr Glu Ala Pro Leu Gln Lys Gly Lys Pro Thr Val Leu
                85                  90                  95
Phe Ile His Ala Ser Trp Met Ser Ser Ala Met Trp Glu Glu Thr Ile
            100                 105                 110
Gln Leu Leu Ala Pro Gln Leu Pro Glu Val Asn Leu Leu Arg Val Asp
```

```
        115                 120                 125
Leu Asn Gly His Gly Lys Thr Thr Ala Gly Arg Lys Glu Tyr Thr Leu
    130                 135                 140
Trp Asn Gln Ala Glu Asp Val Leu Thr Leu Leu Val
145                 150                 155

<210> 31004
<211> 207
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (108)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31004
Gly Ile Arg Lys Thr Asp Thr Ala Asn Ser Thr Ala Asn Ile Pro Gln
1               5                   10                  15
Arg Glu Leu Glu Leu Ser Asn Val Leu Ile Ala Ala Ile Ser Met Gly
            20                  25                  30
Ser Met Ile Ala Leu Arg Leu Val Leu Leu Asp Gln Ala Arg Phe Ser
        35                  40                  45
Gly Leu Val Leu Leu Ala Ser Asn Ala Ser Glu Ala Thr Asn Ala Gln
    50                  55                  60
Arg Asp Ala Phe Tyr Gln Leu Arg Asp Ile Trp Val Ala Thr Pro Ala
65                  70                  75                  80
Pro Ser Glu Gln Ile Met Asn Ala Ala Ile Leu Ser Trp Gly Gly Asn
                85                  90                  95
Pro Asp Val Glu Gly Pro Arg Ala Thr Arg Ile Xaa Gln Asp Trp Ile
            100                 105                 110
Gln Arg His Ser Gly Ala Glu Asn Val Glu Pro Thr Leu Thr Ser Met
        115                 120                 125
Met Glu Arg Asp Ala Val Leu Asn Arg Leu Gly Glu Phe Arg Val Pro
    130                 135                 140
Val Leu Leu Ile His Gly Glu Asp Asp Lys Thr Tyr Pro Leu Gln Asp
145                 150                 155                 160
Ala Val Glu Ile Lys Glu Arg Leu Val Asn Ala Asp Val Arg Leu Glu
                165                 170                 175
Val Val Lys Asp Glu Gly His Leu Leu Ile His Leu Arg Glu Ala Lys
            180                 185                 190
Asp Val Ala Glu Trp Ile Gln Gly Phe Val Gln Lys Val Leu Lys
        195                 200                 205

<210> 31005
<211> 65
<212> PRT
<213> A.fumigatus

<400> 31005
Asn Asp Gln Leu Asn Trp Leu Gly Ala Glu Thr Asp Tyr Thr Gly Pro
1               5                   10                  15
Asn Trp Gly Ile Gly Phe Ala Lys Ala Lys Thr Ile Val Leu Ala Ser
            20                  25                  30
Pro Asp Tyr Gln Val Ile His Gly Gln Pro Leu Phe Gly Glu Trp Pro
        35                  40                  45
```

```
Glu Cys Ser Pro Ser Asn Pro Val Leu Gly Gly His Gln Gly Leu Ser
    50                  55                  60
Val
65

<210> 31006
<211> 224
<212> PRT
<213> A.fumigatus

<400> 31006
Pro Arg Gln Thr Thr Arg Ser Ser Met Gly Ser Arg Ser Leu Glu Asn
1               5                   10                  15
Gly Gln Asn Ala Val Gln Ala Ile Gln Ser Ser Glu Ala Thr Lys Gly
            20                  25                  30
Ser Leu Ser Ser Val Gln Leu Asp Val Thr Asp Pro Thr Ser Thr Ala
        35                  40                  45
Ser Ala Ala Lys Gln Ile Glu Ala Gln Phe Gly Arg Val Asp Val Leu
    50                  55                  60
Val Asn Asn Ala Gly Val Phe Ser Gln Ser His Val Thr Lys Thr Ala
65                  70                  75                  80
Met Glu Glu Thr Phe Ala Val Asn Ser Ile Gly Pro Ala Leu Val Ser
                85                  90                  95
Glu Val Cys Asn Pro Leu Leu Met Lys Ser Ala Arg Pro Tyr Ser Ile
            100                 105                 110
Phe Ile Ser Ser Ile Leu Gly Ser Leu Ser Glu Ala Ala Asp Pro Ser
        115                 120                 125
Ser Ser Val His Tyr Tyr Asp Gly Val Ala Tyr Arg Met Ser Lys Ala
    130                 135                 140
Ala Leu Asp Thr Leu Val Val Gln Gln His Lys Gln Phe Ser Pro Lys
145                 150                 155                 160
Gly Ile Arg Val Phe Ala Val Cys Pro Gly Leu Val Arg Ser Asn Leu
                165                 170                 175
Arg Gly Lys Ser Glu Glu Asp Val Ser Ala Gly Gly Arg Ala Gly Asp
            180                 185                 190
Pro Met Val Pro Ala Glu Met Ile Leu Gly Ile Ile Gln Gly Lys Arg
        195                 200                 205
Asp Ala Asp Ala Gly Lys Phe Leu Arg Gly Asp Met Val Leu Asn Trp
    210                 215                 220

<210> 31007
<211> 101
<212> PRT
<213> A.fumigatus

<400> 31007
Ser Asp Ile Asp Arg Ser Gly Trp Ser Gly Leu Ala Ala Ile Lys Thr
1               5                   10                  15
Tyr Leu Gln Val Asn Pro Ser Ser Lys Val Met Leu Leu Glu Ala Ala
            20                  25                  30
Ser Ser Ile Gly Gly Val Trp Ala Lys His Arg Leu Tyr Lys Gly Leu
        35                  40                  45
Lys Ser Asn Asn Met Leu Gly Thr Tyr Glu Phe Ser Asp Phe Pro Met
    50                  55                  60
Asp Pro Ala Thr Phe Gly Val Gln Pro Gly Gln His Ile Pro Gly His
65                  70                  75                  80
```

```
Val Ile Gln Gln Tyr Leu Glu Pro Ile Gly Gly Thr Phe Gln Val Pro
                85                  90                  95
Gly Thr His Ser Gly
            100
```

<210> 31008
<211> 620
<212> PRT
<213> A.fumigatus

<400> 31008

```
Arg His Arg Asn Ala Phe Ala Leu Ala Val Ser Ile Pro Ala Ile Ala
1               5                  10                  15
Ile Gln Ala Glu Ile Val Leu Gln Ala Glu Thr Pro Pro Val Pro Gln
            20                  25                  30
Ala Glu Pro Ile Ala Val Thr Glu Leu Pro Leu Pro Pro Val Ala Pro
        35                  40                  45
Ser Asn His Ser Gly Ala Cys Thr Lys Ser Ile Asn Pro His Gly Thr
    50                  55                  60
Gly Cys Ile Gly Ile Thr Ser Asp Thr Phe Gln Ala Gly Asp Phe Thr
65                  70                  75                  80
Pro Asp Gly Asn His Val Leu Ala Asn Val Glu Phe Val Gly Ala Pro
                85                  90                  95
Thr Ala Pro Asp Pro Ala Ser Val Tyr Thr Gly Gln Gln Leu Ile Ala
            100                 105                 110
Val Lys Val Asp Gly Ser Leu Phe Pro Asn Gly Asp Pro Trp Lys Cys
        115                 120                 125
Leu Ser Cys Gly Val Pro Ala Gly Gln Ala Gln Ser Leu Asp Pro Ala
    130                 135                 140
Arg Asp Tyr Pro His Ala Ala Arg Asn Gly Arg Gln Ala Leu Trp Gly
145                 150                 155                 160
His Asn Ile Leu Asp Cys Gly Asp Ala Leu Leu Val Ser Asp Glu Cys
                165                 170                 175
Thr Pro Asn Lys Thr His Val Tyr Pro Ile Tyr Trp Ser Ser Gly Ser
            180                 185                 190
Met Arg Glu Leu Arg Met His Pro Asp Asp Val His Met Gly Trp Ser
        195                 200                 205
Ser Phe Thr Lys Gly Gly Gln Asn Ala Phe Phe Gly Arg Leu Leu Phe
    210                 215                 220
Asn Pro Asn Pro Thr Thr Gly Ser Pro Val Val Pro Arg Tyr Glu Leu
225                 230                 235                 240
Ile Asp Val Asn Ile Leu Val Asp Pro Asn Gly Arg Pro Ser Ile Met
                245                 250                 255
Ala Glu Gly Thr Gln Leu Arg Leu His Asp Glu Ala Ile Val Val Gly
            260                 265                 270
Glu Leu Arg Gly Phe Ser Gly Ala Gly Asp Glu Ile Leu Tyr Ile Gly
        275                 280                 285
Pro Thr Arg Glu Ala Asn Asn Val Asp Leu Phe Ala Val His Val Thr
    290                 295                 300
Ser Gly Ala Val Arg Arg Leu Thr Ser His Pro Glu Tyr Ala Asp Pro
305                 310                 315                 320
Ile Ala Phe Ser His Asp Asn Gln Trp Phe Val Val Met Asp Thr Arg
                325                 330                 335
Gly Ser Asn Arg Gln Met Trp Met Ser Gly Met Arg Tyr Val Pro Pro
            340                 345                 350
Leu Ile Asp Leu Val Thr Met Thr Ala Ala Trp Ser Thr Arg Asn Asn
```

```
        355                 360                 365
Gly Ala Arg Arg Phe Phe Gln Pro Ile Leu Val Asp Arg Tyr Gly Asp
    370                 375                 380
Arg Gly Ser Tyr Phe Gly Gln Gln Val Asn Ala Ala Gly Asn Gly Thr
385                 390                 395                 400
Ser Gly Ser Val Asn Asp Pro Asn Trp Asn Gly Arg Ala Asp Pro Ala
                405                 410                 415
Phe Ser Pro Asp Gly Thr Lys Ile Val Phe Trp Gln Ser Leu Val Ile
            420                 425                 430
Pro Pro Ala Cys Gly Asp Pro Asn Pro Leu Pro Cys Pro Val Ser Thr
        435                 440                 445
Ala Pro Gly Gly Arg Thr Tyr Arg Val Ile Leu Ala His Leu Thr Ser
    450                 455                 460
Arg Gln Pro Ala Ala Pro Ala Pro Val Tyr Lys Val Pro Asp Met Ile
465                 470                 475                 480
Pro Trp Ala Arg Ala Phe Ser Pro Gly Ala Ser Thr Pro Pro Pro Tyr
                485                 490                 495
Gln Leu Thr Ala Gly Leu Tyr Ser Leu Pro Gly Lys Val His Gly Ile
            500                 505                 510
Ala Gln Val His Leu Thr Ala Tyr Pro Gly Phe Gly Gly Phe Lys Thr
        515                 520                 525
Val Ala Val Asn Tyr Thr Asn Tyr Ser Asp Asp Gly Arg His Leu Ile
    530                 535                 540
His Gly Arg Glu Thr Val Thr Leu Thr Leu Ser Glu Ser Asn Pro Trp
545                 550                 555                 560
Trp Asn His Leu Asp Trp Tyr Ser Asp Leu Thr Gln Thr Gly Ala Val
                565                 570                 575
Gln Ala Thr Lys Arg Thr Gly Pro Gly Gly Phe Gln Leu Ser Ile Asp
            580                 585                 590
Ala Met Gln Asn Ile Phe Glu Ala Asn Gly Thr Leu Thr Thr Thr Val
        595                 600                 605
Gly Gly Val Val Tyr Leu Gln Pro Ala Asn Gly Thr
    610                 615                 620

<210> 31009
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31009
Leu Leu Ser Arg Leu Met Gly His Ser Ser Leu Met Gly Ile His Gly
1               5                   10                  15
Ser Ala Ser Ala Val Ala Ser Leu Gln Gly Lys His Lys Ala Leu Ile
            20                  25                  30
Pro Gln Gly Ile Thr Leu Met Leu Leu Glu Met Ala Ala Lys Leu Tyr
        35                  40                  45
Gly Ala Thr Thr Tyr Ser Thr Val Val Met Leu Ser Ser
    50                  55                  60

<210> 31010
<211> 160
<212> PRT
<213> A.fumigatus

<400> 31010
Arg Val Ser Ile Thr Ile Gly Ile Leu Val Ser Tyr Trp Ile Asn Tyr
```

```
1               5                   10                  15
Gly Thr Asn Tyr Ile Gly Gly Ser Arg Cys Ala Pro Asp Ala Pro Phe
            20                  25                  30
Ser Asn Gly Ser Lys Phe Asp Pro Tyr Arg Asp Val Pro Ser Gly Gly
        35                  40                  45
Cys Asp Gly Gln Ser Asp Ala Ser Trp Arg Leu Pro Leu Ala Leu Gln
    50                  55                  60
Ile Leu Pro Ala Met Ile Leu Gly Leu Gly Met Leu Phe Phe Pro Glu
65                  70                  75                  80
Thr Pro Arg Trp Leu Met Met Lys Glu Arg Tyr Asp Asp Ala Leu Arg
                85                  90                  95
Ser Leu Ser Lys Leu Arg Arg Lys Ala Arg Asp Cys Pro Glu Leu Val
            100                 105                 110
Asn Glu Tyr Leu Glu Ile Lys Ala Ser Ile Leu Leu Glu Asn Thr Phe
        115                 120                 125
Ala Arg Glu His Phe Pro Asn Met Ser Gly Leu Arg Leu His Ala Ala
    130                 135                 140
Gln Val Gly Val Leu Asn Gln Ser Ser Ser Val Ser Glu Gln Phe Tyr
145                 150                 155                 160
```

<210> 31011
<211> 91
<212> PRT
<213> A.fumigatus

```
<400> 31011
Thr Ser Leu Leu Ala Thr Gly Val Tyr Gly Ile Val Asn Cys Leu Ser
1               5                   10                  15
Thr Leu Pro Ala Leu Phe Leu Ile Asp Lys Val Gly Arg Arg Pro Leu
            20                  25                  30
Leu Met Phe Gly Ala Thr Gly Thr Cys Ile Ser Leu Ala Ile Val Gly
        35                  40                  45
Gly Ile Ile Gly Ala Tyr Gly Ser Asp Leu Val Asn His Lys Ser Ala
    50                  55                  60
Gly Trp Ala Gly Ile Ala Phe Ile Tyr Ile Tyr Asp Ile Asn Phe Ser
65                  70                  75                  80
Tyr Ser Phe Gly Leu Cys Pro Arg Leu Val Met
                85                  90
```

<210> 31012
<211> 224
<212> PRT
<213> A.fumigatus

```
<400> 31012
Asn Lys Ile Ser Thr Leu Glu Val Ile Asp Cys Thr Ala Arg Met Ile
1               5                   10                  15
Gly Arg Thr Met Asp Asn Thr Pro Arg Gly Gly Phe Ser Leu Ile Tyr
            20                  25                  30
Gln Asn Pro Tyr Leu Leu Gly Val Ala Ser Val Ser Pro Leu Ser Ile
        35                  40                  45
Gly Lys Gly Gly Gln Ser Tyr Pro Asp Tyr Tyr Leu Gln Phe Ser Thr
    50                  55                  60
Leu Gly Gly Leu Leu Phe Gly Tyr Asp Gln Gly Val Ile Ser Gly Val
65                  70                  75                  80
Ile Thr Met Glu Ser Phe Gly Ala Arg Phe Pro His Ile Tyr Thr Asp
```

```
                85                  90                  95
Ser Ser Phe Lys Gly Trp Phe Val Ser Thr Leu Leu Leu Gly Thr Val
            100                 105                 110
Asn Val Leu Ile Phe Pro Ser Lys Asn Asn Thr Asp Ala Leu Leu Ala
        115                 120                 125
Ala Trp Phe Gly Ser Leu Ile Asn Gly Pro Ile Ala Asp Arg Leu Gly
    130                 135                 140
Arg Lys Leu Ser Ile Asn Leu Ala Val Val Val Phe Val Ile Gly Ser
145                 150                 155                 160
Ala Ile Gln Cys Gly Ala Val Thr Ile Pro Met Leu Phe Ala Gly Met
                165                 170                 175
Phe His His Leu Gln Asp Thr Ser Arg Tyr Leu Ile Ala Cys Arg Glu
            180                 185                 190
Ser Tyr Arg Arg Ser Gly Gly Trp Ser Val Asp His Gly Gly Ala Phe
        195                 200                 205
Val His Leu Arg Gly Met His Pro His Leu Thr Glu Glu Gly Glu Glu
    210                 215                 220
```

<210> 31013
<211> 90
<212> PRT
<213> A.fumigatus

<400> 31013

```
Arg Thr Tyr Gly Asn Ala Trp Ile Leu Ser Arg Val His Gln Ser Thr
1               5                   10                  15
Gln Ser Glu Thr Leu Ile Cys Gly Thr Pro Asp His Val Lys Ser Ile
            20                  25                  30
Gly Ala Ser Glu Leu Phe Lys Val Asn Thr Arg Leu Lys Ser Met Thr
        35                  40                  45
Gln Asn Trp Phe Val Thr Ser Ala Leu Leu His Phe Met Asp Ile Glu
    50                  55                  60
Asn Cys Leu Ser Pro Cys Ser Leu Thr Gly Ile Glu Phe Ala Gly Arg
65                  70                  75                  80
Leu Met Asn Ser Pro Ser Thr Ser Arg Gln
                85                  90
```

<210> 31014
<211> 66
<212> PRT
<213> A.fumigatus

<400> 31014

```
Gln Leu Phe Gln Thr Arg Trp Leu Lys Val Asn Val Gln Ile Asp Tyr
1               5                   10                  15
Leu Pro Phe Ala Gly Arg Leu Leu His Thr Phe Thr Cys Glu Lys Ser
            20                  25                  30
Asp Thr Thr Ser Asn Leu Pro Asp Pro Ala Thr Ala Val His Leu Ala
        35                  40                  45
Ser Val Lys Leu Ala Arg Leu Val Gln Asp Pro Ala Lys Gln Leu Glu
    50                  55                  60
Ser Glu
65
```

<210> 31015
<211> 106

<212> PRT
<213> A.fumigatus

<400> 31015
Gly Ser Thr Asp Ala Pro Leu Phe Cys Val Arg Gly Ala Ser Ser Ala
1 5 10 15
Thr Ser Tyr Arg Val Ser Leu Leu Gly Ile Ser Phe Ser Trp Thr Met
20 25 30
Thr Asn Ser Cys Arg Leu Glu Asn Ile Glu Gly Asp Trp His Glu Phe
35 40 45
Glu Ser Lys Ala Leu Arg Lys Glu Lys Asp Lys Glu Ala Arg Arg Ala
50 55 60
Glu Tyr Gln Lys Asp Lys Glu Lys Arg Lys Ala Ala Leu Ser Ala Pro
65 70 75 80
Gln Ser Glu Arg Glu Thr Lys Arg Val Arg Gln Asp Val Glu Glu Asn
85 90 95
Leu Gln Pro Ser Ala Gln Pro Val Glu Gln
100 105

<210> 31016
<211> 134
<212> PRT
<213> A.fumigatus

<400> 31016
Tyr Arg Pro Pro Glu Leu Leu Leu Gly Glu Thr Arg Tyr Gly Pro Ala
1 5 10 15
Val Asp Val Trp Ser Ala Gly Cys Val Phe Val Glu Leu Phe Thr Lys
20 25 30
Lys Ala Val Phe Pro Gly Glu Gly Gly Glu Ile Ser Gln Leu Glu Lys
35 40 45
Leu Tyr Ala Ser Leu Gly Thr Pro Thr Arg Ala Glu Trp Pro Asp Leu
50 55 60
Val Glu Met Pro Trp Phe Glu Leu Met Arg Pro Thr Glu Arg Lys Lys
65 70 75 80
Arg Val Phe Glu Asp Ile Tyr Arg Glu Val Leu Ser Pro Ala Ala Leu
85 90 95
Asp Leu Val Ser Gln Ile Phe Arg Tyr Asp Pro Thr Lys Arg Pro Ser
100 105 110
Ala Glu Glu Val Leu Thr His Pro Tyr Phe Val Ser Glu Glu Pro Ala
115 120 125
Pro Gln Gln Ala Ile Glu
130

<210> 31017
<211> 118
<212> PRT
<213> A.fumigatus

<400> 31017
Trp Glu Glu Tyr Pro Tyr Ser Ile Val Ala Gln Pro Leu Leu Lys Lys
1 5 10 15
Cys Ser Thr Pro His Lys Ser Leu Ile Tyr Thr Met Ser Phe Ser Asn
20 25 30
Leu Val Ser Asp Leu Ala Phe Arg Asp Ala Tyr Asp Asp Arg Ser Ser
35 40 45

```
Gln Ile Ser His Ser Arg Ser Gln Ala Thr Ala Arg Ser Tyr Thr Ser
    50                  55                  60
Thr Ala Ala Thr Ser Val Ser Ile Ser Gly Asp Ile Ser Ser Gln Leu
65                  70                  75                  80
His Ala Gly Tyr Ser His Pro Leu Thr Arg Ser Trp Gln Ala Glu Arg
                85                  90                  95
Gln Leu Thr Lys Val Arg Gly Val Arg Val Val Ser Gln Ile Ile His
            100                 105                 110
Ala Leu Lys Thr Thr Thr
        115
```

<210> 31018
<211> 309
<212> PRT
<213> A.fumigatus

<400> 31018

```
Leu Gly Ser Phe Leu Ile Ser Met Gln Glu Met Leu Ile Tyr Pro Leu
1               5                   10                  15
Phe Ile Thr Asp Asn Pro Asp Glu Glu Thr Pro Ile Pro Ser Leu Pro
            20                  25                  30
Asn Gln His Arg Arg Cys Leu Asn Arg Leu Val Pro Phe Leu Arg Pro
        35                  40                  45
Leu Val Gln Lys Gly Leu Arg Ser Val Ile Leu Phe Gly Val Pro Leu
    50                  55                  60
His Pro Thr Ala Lys Asp Ala Leu Gly Thr Ala Ala Asp Asp Pro Ser
65                  70                  75                  80
Gly Pro Val Ile Gln Ala Ile Arg Leu Leu Arg Ser Arg Phe Pro Asn
                85                  90                  95
Leu Tyr Ile Val Thr Asp Val Cys Leu Cys Glu Tyr Thr Ser His Gly
            100                 105                 110
His Cys Gly Ile Leu Arg Glu Asp Gly Thr Leu Asp Asn Ala Gln Ser
        115                 120                 125
Val Asp Arg Ile Ser Asp Val Ala Leu Ala Tyr Ala Thr Ala Gly Ala
    130                 135                 140
His Cys Val Ala Pro Ser Asp Met Asn Asp Gly Arg Val Arg Ala Ile
145                 150                 155                 160
Lys Leu Lys Leu Ile Glu Ala Gly Leu Ala His Arg Val Leu Leu Met
                165                 170                 175
Ser Tyr Ser Ala Lys Phe Ser Gly Cys Leu Tyr Gly Pro Phe Arg Asp
            180                 185                 190
Ala Ala Gly Ser Cys Pro Ser Phe Gly Asp Arg Arg Cys Tyr Gln Leu
        195                 200                 205
Pro Pro Gly Gly Arg Gly Leu Ala Arg Arg Ala Ile Gln Arg Asp Val
    210                 215                 220
Gly Glu Gly Ala Asp Ile Ile Met Val Lys Pro Ala Ser Ser Tyr Leu
225                 230                 235                 240
Asp Ile Ile Arg Asp Ala Lys Glu Leu Ala Lys Asp Met Pro Ile Ala
                245                 250                 255
Ala Tyr Gln Val Ser Gly Glu Tyr Ala Met Ile His Ala Ala Ala Lys
            260                 265                 270
Ala Gly Val Phe Asp Leu Lys Ser Met Val Phe Glu Ser Thr Glu Gly
        275                 280                 285
Ile Leu Arg Ala Gly Ala Gly Ile Ile Val Ser Tyr Phe Val Pro Glu
    290                 295                 300
Phe Leu Asp Trp Leu
```

305

<210> 31019
<211> 230
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (99)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31019
Thr Gly Thr Ala Pro Arg His Arg Val Gly Met Phe Leu Gly Met Ser
1 5 10 15
Ile Gln Leu Ser His Arg Thr Val Ser Glu Glu Ser Glu Lys Asp Lys
20 25 30
Leu Ile Arg Gly Glu Leu Tyr Arg Pro Phe Asp Ile His Leu Val Glu
35 40 45
Glu Arg Glu Arg Cys Lys Ala Ala Ile Trp Arg Phe Asn Asn Ala Cys
50 55 60
Asn Pro Val Ser Gly Leu Ser Ala Lys Glu Gln Asn Arg Leu Leu Lys
65 70 75 80
Glu Val Leu Ile Pro Pro Gly Ser Val Val Val Ser Pro Ser Ser Val
85 90 95
Gly Pro Xaa Arg Pro Ala Gly Phe Ile Gly Gln Gly Ala Val Val Glu
100 105 110
Ser Pro Phe Gln Cys His Tyr Gly Phe Asn Ile His Ile Gly Glu Asp
115 120 125
Val Met Ile Ser Glu Asn Cys Leu Phe Val Asp Asp Cys Pro Ile Thr
130 135 140
Ile Gly Ala His Thr Trp Ile Gly Pro Arg Val Thr Ile Leu Ser Ser
145 150 155 160
Met Ala His Ala Asn Met Gln Glu Arg Lys Gly Ser Gln Ser Arg Tyr
165 170 175
Gln Gly Arg Pro Val Thr Ile Glu Glu Asp Cys Tyr Val Gly Ala Gly
180 185 190
Cys Thr Ile Tyr Pro Gly Val Arg Leu Arg Arg Gly Ala Tyr Val Ala
195 200 205
Pro Gly Glu Val Val Lys Ser Asp Ile Val Ala Tyr Gly Phe Gln Gly
210 215 220
Leu Lys Pro Ser Tyr Met
225 230

<210> 31020
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31020
Met Arg Asp Leu Trp Gly Val Glu His Phe Leu Arg Ser Gly Cys Ala
1 5 10 15
Thr Met Glu Tyr Gly Tyr Ser Ser His Gln Ser Leu Pro Leu Gly Thr
20 25 30
His His Ile Leu Pro Asn Asp Ile Trp Leu Cys Lys Cys Ala Leu Cys
35 40 45

```
Ile Met Asn Tyr Lys Leu Leu Tyr Gln Tyr Arg Val Ser
    50                  55                  60

<210> 31021
<211> 78
<212> PRT
<213> A.fumigatus

<400> 31021
Thr Ser Ser Ser Arg Ser Pro Ile Ala Leu Ala Asp Cys His Tyr His
1               5                  10                  15
Tyr Tyr Tyr Leu Ser Asn Ile Leu His Ser Val Gly Val Thr Asn Lys
            20                  25                  30
Pro Thr Leu Ser Asp Thr Lys Arg Val Pro Lys Arg Gly Phe Thr Phe
        35                  40                  45
Val Leu Tyr Phe Ser Leu Ser Ser Ile Leu Ile Ile Cys Gln Leu Ile
    50                  55                  60
Asp Leu Ser Thr Phe Gln Leu Leu Arg Pro Pro Phe Asp Arg
65                  70                  75

<210> 31022
<211> 73
<212> PRT
<213> A.fumigatus

<400> 31022
Glu Tyr Ser His Tyr Tyr Ser Ser Tyr Ser Ser Leu Ser Cys Ser Ser
1               5                  10                  15
Thr Ile Leu Thr Lys Ser Gly Ala Thr Ser Pro Thr Ser Thr Ile Lys
            20                  25                  30
Arg Gly Ala Val His Thr Val Leu Val Ala Leu Gln Val Leu Ala Leu
        35                  40                  45
Ile Leu Ser Asn Ser Asn Ile Leu Leu Val Pro Val Pro Phe Leu Ala
    50                  55                  60
Phe Phe Phe Lys Ile Phe Leu Leu Ile
65                  70

<210> 31023
<211> 104
<212> PRT
<213> A.fumigatus

<400> 31023
Lys Pro Asn Pro Cys Ser Glu Ser Ser Ala Leu Tyr Ile Ile Val Ala
1               5                  10                  15
Asp Thr Thr Met Ala Tyr Cys Tyr Leu Val Ser Pro Gln Ser Leu Val
            20                  25                  30
Ala Met Val Pro Tyr Ile Gln Leu Ser Trp His Tyr Cys Leu Ser Ala
        35                  40                  45
Gly Leu Leu Ile Thr Tyr Thr Ser Phe Thr Leu Arg Arg Gly Ala Ile
    50                  55                  60
Phe Ser Phe Ser Leu Asp His Leu Val Tyr Ser Asn Ser Ile Ile Asp
65                  70                  75                  80
Pro Val Lys Ala Leu Phe Phe Phe Phe Phe Phe Phe Trp Gln Pro His
                85                  90                  95
Phe Val Cys Thr Pro Cys Trp Asp
```

100

<210> 31024
<211> 145
<212> PRT
<213> A.fumigatus

<400> 31024
Thr Arg Ser Phe Pro Pro Leu Lys Leu Phe Phe Leu Lys Ala Glu Gln
1 5 10 15
Arg His His Trp Arg Pro Ala Thr Thr Tyr Ser Ser Arg Ala Gly Leu
20 25 30
Ala Ser Gln Gln Pro Gln Ile Ser Arg Cys Arg Leu Ser Pro Ser Gly
35 40 45
Phe Ser Ser Cys Ser Pro Pro Asp His Leu Pro His His Pro Ser Thr
50 55 60
Ser Asn Ser Thr Trp Thr Ser Ser Leu Leu Pro Ser Thr Pro Arg Ser
65 70 75 80
Thr Pro Pro Met Thr Arg Glu Pro Ile Leu Ser Thr Glu Asn Gly Ala
85 90 95
Gly Asn Ser Gly Leu Ser Ser Ala Cys Trp Thr Gly Pro Pro Pro Ala
100 105 110
Ser Thr Thr Pro Ala Ala Thr Ser Ser Gly Gln Arg Cys Thr Ala Ala
115 120 125
His Leu Pro Arg Ser Leu Ala Ser Gln Thr Thr Gly Ala Thr Pro Leu
130 135 140
Pro
145

<210> 31025
<211> 440
<212> PRT
<213> A.fumigatus

<400> 31025
Ile Ser Ala Ser Ala Ser Leu Thr Ser Phe Ile Asp Val His Gln Leu
1 5 10 15
Val Arg Asp Val Glu Glu Val Gln His Leu Arg Gln Gly Leu Asp Leu
20 25 30
Ser Ser Ser Ser Ala Leu Leu Gly His Leu Asp Ile Lys Val Ser Met
35 40 45
Ile Leu Ala Cys Ala Ser Leu Ala Ala Val Asp Leu Asp Pro Gly Lys
50 55 60
Ala Gln Glu Leu Gly Leu Ala Asn Thr Asp Ile Asp Ala Leu Val Arg
65 70 75 80
Asp Leu Trp Lys Gly Ser Arg Thr Leu Ile Ser Arg Ser Asp Leu Asp
85 90 95
Pro Leu Leu Pro Thr Ser Lys Ala Val Leu Ser Glu Gly Arg Ala Ala
100 105 110
Pro Ser Leu Glu Ala Ser Asn Asp Leu Leu Gln Gln Ser Gly Ala Arg
115 120 125
Ile Ala Ala Ala Thr Asp Ile Gln Val Gln Val Val Ser Ile Arg Ile
130 135 140
Leu Leu Leu Leu Ala Ala Arg Ser Phe Ala Ala Pro Ser Glu Tyr Leu
145 150 155 160
Lys Leu His Leu Asp Val Ile Ser Ser Ala Ile Asp Ala Ser Leu Asp

```
                165                 170                 175
Ser Pro Tyr Asp Glu Gly Thr His Leu Ile Asp Arg Glu Trp Arg Trp
            180                 185                 190
Gln Leu Trp Ser Phe Ile Cys Leu Leu Asp Trp Thr Ser Pro Gly Ile
        195                 200                 205
Tyr His Thr Ser Ser Tyr Phe Ile Arg Pro Glu Met His Arg Gly Pro
    210                 215                 220
Pro Ser Lys Val Pro Gly Leu Pro Asp His Gly Ser Tyr Pro Ser Ala
225                 230                 235                 240
Ile Glu Lys Val His Trp Asp Arg Leu Ser Gln Thr Arg His Tyr Leu
                245                 250                 255
Glu Tyr Ala Leu Ala Leu Ala His Leu Ser Arg Arg Ala Glu Asp Cys
            260                 265                 270
Ile Val Arg Pro Gly Pro Val Ser Pro Ala Gln Ala Ala Glu Leu Cys
        275                 280                 285
Thr Glu Leu Asp Ala Leu Asp Asn Lys Leu Ser Phe Tyr Gln Leu Leu
    290                 295                 300
Gly Ser Thr Ala Pro Asp Gly Gly Thr Phe Ser Thr Gly Gly Arg Pro
305                 310                 315                 320
Val Asp Ala Thr Ser Ile Thr Gly Asp Leu Ala Thr Asp Lys Ala Ser
                325                 330                 335
Thr Glu His Arg Arg Phe Leu Ala Arg Ala Pro Val Ile Gln Ser Met
            340                 345                 350
His Leu Ser Leu Glu Leu Gly Leu Ile Arg Phe Lys Leu Phe Arg His
        355                 360                 365
Glu Val Phe His Leu Met Gln Ala Pro Ser Thr Ser Gly Thr Leu Arg
    370                 375                 380
Met Ile Cys Met Asp Ala Cys Met Asp Ala Cys Ile Leu Val Leu Ala
385                 390                 395                 400
Gln Cys Trp Ser Ile Gly Asn Arg Asp Val Pro Gly Val Gln Ala Gln
                405                 410                 415
Ala Gln Ala Gln Ser Gln Met Ser Leu Asp Pro Ser Glu Glu Val Phe
            420                 425                 430
Thr Thr Gly Met Glu Gly Ser Ala
        435                 440
```

<210> 31026
<211> 87
<212> PRT
<213> A.fumigatus

<400> 31026

```
Ala Gln Leu Arg Val His Gly Pro His Ala Ser Val Tyr Thr Thr Phe
1               5                   10                  15
Asn Tyr Ser His Pro Leu Ala Ser Asn Thr Gly Val Thr Thr Phe Phe
            20                  25                  30
Asp Ile Ser Glu Ala Leu Phe Pro Pro Gln Phe Cys Thr Lys Phe Asn
        35                  40                  45
Ile Ile Gln Ser Ile Gly Val Asn Tyr Ile Leu Ala Asp Glu Ala Tyr
    50                  55                  60
Glu Arg Gln His Leu Gln Pro Ile Leu Ala Ala Ser Leu Thr Ile Gly
65                  70                  75                  80
Met Gln Ile Cys Ile Ala Pro
                85
```

<210> 31027

<211> 118
<212> PRT
<213> A.fumigatus

<400> 31027
Gln Ala His Tyr Pro Leu His Val Met Arg Gly Lys Asn Thr Gly Lys
1 5 10 15
Gln Arg Arg Ser Ile Lys Lys Gln Gln Thr Val Ala Glu Leu Lys His
20 25 30
Leu Phe Asp Ala Pro Gly Arg Gly Ser Val Met Pro Arg Gln Val Leu
35 40 45
Trp Gly Asp Leu Cys Leu Thr Ala Phe Pro His Glu Leu Asn Ser Glu
50 55 60
Ser Thr Ala Pro Met His Arg Tyr Ile Leu Leu Ser Ile Ile Arg Ile
65 70 75 80
Pro Leu Pro Leu Thr Leu Glu Ser Gln Arg Ser Leu Thr Leu Val Lys
85 90 95
Arg Cys Phe Arg Arg Ser Ser Val Leu Ser Ser Thr Leu Tyr Ser Arg
100 105 110
Leu Gly Ser Thr Thr Phe
115

<210> 31028
<211> 96
<212> PRT
<213> A.fumigatus

<400> 31028
Ser Trp Gly Asp Ser Ala Gly Gly Val Tyr Ser Leu Asn Gly Pro Pro
1 5 10 15
Ser Ile Met Ala Ala Asn Cys Thr Ile Thr Arg Thr Phe Pro Phe Pro
20 25 30
Glu Trp Arg Leu Pro Pro Ala Leu Phe Gly Gly Ile Ala Phe Thr Met
35 40 45
Gly Trp Phe Trp Tyr Gly Trp Thr Gly Trp Thr Arg Ser Ile His Trp
50 55 60
Met Ala Pro Thr Ala Ser Gly Val Phe Thr Gly Phe Gly Ile Tyr Val
65 70 75 80
Ile Phe Leu Gln Cys Phe Asn Tyr Leu Ile Asp Ser Tyr Leu Gln Leu
85 90 95

<210> 31029
<211> 82
<212> PRT
<213> A.fumigatus

<400> 31029
Cys Val Pro Ser Ala Ala Ser Val Phe Ala Ala Asn Thr Ile Leu Arg
1 5 10 15
Ser Ala Val Gly Ala Gly Phe Pro Leu Phe Ser Arg Gln Leu Phe Thr
20 25 30
Asn Leu Gly Val Gln Trp Ala Gly Thr Leu Leu Gly Cys Leu Ala Leu
35 40 45
Ile Met Ile Pro Ile Pro Leu Ala Phe Ile Lys Phe Gly Pro Arg Leu
50 55 60
Arg Arg Arg Ser Arg Phe Ala Pro Ser Pro Val Val Phe Glu Glu Lys

65 70 75 80
Ser Gly

<210> 31030
<211> 144
<212> PRT
<213> A.fumigatus

<400> 31030
Ser Phe Gly Ser His Asp Thr Phe Phe Val Ala Pro Leu Phe Ser Gly
1 5 10 15
Ala Asp Asp Thr Phe Ser Asp Thr Glu Arg Ser Ala Tyr Thr Gln Lys
20 25 30
Val Asp Phe Ala Lys Leu Arg Ser Glu Leu Leu Asn Ala Asp Ser Thr
35 40 45
Glu Ala Gln Leu Thr Arg Ser Ser His Glu Lys Ile Ala Ala Asp Leu
50 55 60
Ala Lys Leu Asn Ser Arg Leu Arg Asp Glu Ile Gly Arg Thr Gln Ala
65 70 75 80
Ser Val Arg Leu Asp Leu Asn Leu Glu Lys Gly Arg Ile Arg Glu Glu
85 90 95
Ala Asn Gly Gln Glu Met Arg Ile Lys Glu Thr Glu Thr Arg Ile Glu
100 105 110
Gln Glu Val Ala Gly Leu Arg Glu Arg Val Glu Ala Val Lys Phe Ser
115 120 125
Thr Leu Gln Trp Leu Met Tyr Gly Ser Phe Ala Thr Phe Ala Gln Ile
130 135 140

<210> 31031
<211> 640
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (40)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31031
Ile Phe Pro Asn Lys Ala Arg Gly Ser Pro Leu Met Gly Ile Leu Thr
1 5 10 15
Lys Gln Gly Gly Pro Gly Phe Leu Gly Ala Asn Leu Arg Gln Gln Tyr
20 25 30
Thr Ser Asn Pro Ser Gly His Xaa Gly Gly Ile Pro Gly Ala Ile Arg
35 40 45
Cys Tyr Ala Phe Pro Phe Ser Glu His Ser Ile Ala Leu Gln Ile Gly
50 55 60
Leu Pro Leu Gln Ser Gln Pro Lys Leu Asn Lys Glu Thr Arg Leu Ala
65 70 75 80
Glu Leu Leu Phe Ser Lys Glu His Val Gly Cys Leu Ala Gln Ile Ile
85 90 95
Gly Gln Asp Tyr Thr Ser Tyr Gln Ala Gln Ala Ser Ile Glu Leu Ala
100 105 110
Ala Ser Leu Ile Gly Lys Leu Cys Thr Glu Glu Ala His Lys Thr Val
115 120 125

```
Leu Ala Asp Ser Gly Val Leu Asp Ala Leu Ala Val Lys Val Ala Ser
    130                 135                 140
Phe Val Val Ala Gln Gly Phe Val Leu Pro Gly Ala Glu Glu His Val
145                 150                 155                 160
Gln Glu Pro Gly Ala Leu Gly Ser Leu Pro Pro Pro Ala Pro Pro Ser
                165                 170                 175
Ala Lys Leu Ala Pro Ile Leu Arg Ala Val Thr Val Ile Ile Glu His
            180                 185                 190
Ser Lys Trp Arg Ala Glu His Phe Leu Ser Ser Pro Gly Ile Val Thr
        195                 200                 205
Val Phe Pro Arg Gln Leu Pro Glu Phe Ala Pro Ser Asp Ile Lys Lys
    210                 215                 220
Gly Pro Trp Gly Ser Thr Tyr Phe Ser Gly Ser Ala Val Pro Arg His
225                 230                 235                 240
Ala Gly Ile Ser Pro Leu Glu Ser Leu Leu Pro Ser Val Pro Leu Ser
                245                 250                 255
Thr Pro Thr Ala Pro Ala Asn Ala Ser Asn Phe Pro Pro Leu Gly His
            260                 265                 270
Gln Gly Ala Arg Arg Arg Pro Ser His Ser Phe Pro Thr Ser Phe Ser
        275                 280                 285
Leu Phe Glu Ser Thr Ser Ser Asp Asp Asp Glu Asn Cys Ile Val Pro
    290                 295                 300
Trp Leu Leu Asn Met Val Arg Ala Glu Asn Gly Met Val Arg Leu Met
305                 310                 315                 320
Ala Ala Arg Leu Ile Thr Val Leu Phe Arg Leu Gly Leu Ala Lys Lys
                325                 330                 335
His Arg Val Ser Leu Leu Ser Tyr Leu Leu Ile Pro Ile Leu Ile Arg
            340                 345                 350
Met Leu Asp Lys Asp Tyr Glu Ile Pro Gly Asp Asn Ser Val Glu Tyr
        355                 360                 365
Gly Gly Leu Ile Pro Ala Thr Thr His Val Lys Glu Glu Ala Pro Ala
    370                 375                 380
Val Leu Ala Thr Leu Val Ile Asp Asp Gln Glu Leu Gln Lys His Ala
385                 390                 395                 400
Val Asp Gly Gly Ala Ile Lys Arg Leu Ser Gln Leu Leu Lys Glu Thr
                405                 410                 415
Tyr Asn Pro Ile His Glu Asn Thr Lys Pro Met Trp His Pro Asp Ala
            420                 425                 430
Asp Glu Ser Ala Pro Asn Ser Asp Thr Gln Pro Leu Glu Cys Arg Leu
        435                 440                 445
Gly Pro Pro Gly Phe Ser Pro Thr His Cys His Val Met Arg Tyr Arg
    450                 455                 460
Glu Asn Ile Leu Lys Ala Leu Ala Ala Leu Val Pro Phe Lys Asp Glu
465                 470                 475                 480
Tyr Arg Lys Leu Val Cys Glu Asn Gly Val Val Pro Tyr Ile Ile Asp
                485                 490                 495
Ser Leu Lys Pro Cys Pro Asp Glu Leu Pro Val Asp Pro Ser Thr Pro
            500                 505                 510
Lys Asn Thr Ala Thr Asp Gly Asn Pro Thr Pro Thr Leu Leu Ala Ala
        515                 520                 525
Cys Gly Ala Ala Arg Met Leu Thr Arg Ser Val Ser Val Leu Arg Thr
    530                 535                 540
Ser Leu Ile Asp Ala Gly Val Ala Ala Pro Leu Phe Val Leu Ile Arg
545                 550                 555                 560
His Pro Asp Ile Glu Val Gln Ile Ala Ala Thr Ser Val Ile Cys Asn
                565                 570                 575
```

```
Leu Ala Leu Asp Phe Ser Pro Met Lys Glu Val Ser Pro Tyr Pro Leu
            580                 585                 590
Lys Asp Val Ile Asp Phe Asp Leu Gln Leu Thr Gln Val Gly Asn Tyr
        595                 600                 605
Leu Ser Gly Tyr Ser Pro Gly Pro Met Arg Ala Arg Ala Leu Ala Glu
    610                 615                 620
His Lys Thr Ser Tyr Arg Val Val Val Gly Thr Glu Thr Cys Val Leu
625                 630                 635                 640

<210> 31032
<211> 118
<212> PRT
<213> A.fumigatus

<400> 31032
Val Phe Lys Val Glu Thr Tyr Ile Ser Tyr Pro Lys Asp Asn Arg Ser
1               5                   10                  15
Pro Glu Lys Ala Val Val Ile Leu Ser Asp Ile Phe Gly Ile Tyr Ile
            20                  25                  30
Asn Ala Gln Leu Leu Ala Asp Glu Phe Ala Ser Asn Gly Tyr Leu Ala
        35                  40                  45
Val Ile Pro Asp Leu Phe His Lys Asp Ala Ile Lys Leu Ser Asp Met
    50                  55                  60
Glu Ser Gly Lys Ala Asp Leu Pro Ala Trp Leu Pro Lys His Gln Thr
65                  70                  75                  80
Pro Thr Val Asp Pro Val Val Glu Ser Thr Ile Lys Tyr Leu Arg Gln
                85                  90                  95
Asp Leu Gly Val Lys Arg Ile Ala Gly Val Gly Tyr Cys Phe Gly Gly
            100                 105                 110
Lys Val Ser Ser Met Leu
        115

<210> 31033
<211> 122
<212> PRT
<213> A.fumigatus

<400> 31033
Ser Pro Val Arg Ser Thr Ser Val Thr Gln Leu Ile Pro Pro Leu Ser
1               5                   10                  15
Pro Arg Arg Ser Ser Leu Pro Ser Leu Val Leu Phe Leu Ser Leu Pro
            20                  25                  30
Pro Val Ser Trp Ser Ala Arg Met Cys Trp Val Asn Ile Lys Ile Met
        35                  40                  45
Thr His Ile Glu Asn Leu Leu Glu Ile Asp Asn Ile Phe Thr Thr Gln
    50                  55                  60
Leu Arg His Glu Ser Glu Asp Ile Leu Ile Lys Thr Gly Gln Pro Trp
65                  70                  75                  80
Gln Ile Asn Leu Phe Ser Gly Val Thr His Gly Phe Ala Val Arg Ala
                85                  90                  95
Asp Leu Ser Asn Lys His Phe Lys Phe Cys Lys Glu Gln Ala Phe Tyr
            100                 105                 110
Gln Ala Val Ala Trp Leu Gln Gln Tyr Leu
        115                 120

<210> 31034
```

<211> 138
<212> PRT
<213> A.fumigatus

<400> 31034
Gln Leu Glu Val Gly Met Pro Glu Ala Arg Ser Ser Pro Thr Trp Cys
1 5 10 15
Arg Pro Arg Lys Ile Gly Leu His Ser Leu Ser Pro Trp Ser Ser Phe
20 25 30
Ala Arg Leu Arg His Ser Thr Gly Leu Ile Ser Thr Gly Asn Val Cys
35 40 45
Ala Leu Thr Ala Arg Tyr Arg Ile Gly Leu Thr Thr Ala Leu Ile Asp
50 55 60
Pro Val Ala Asp Asp Arg Gly Gly Arg Ala Glu Asp Phe Ala Asn Tyr
65 70 75 80
Val Thr Phe Val Lys Glu Leu Arg Ser Ala Ala Gly Arg Leu Gly Ile
85 90 95
Ser Leu Thr Leu Pro Ser Ser Tyr Trp Tyr Leu Lys Gly Phe Asp Val
100 105 110
Val Asn Leu Glu Pro Tyr Val Asp Trp Phe Asn Phe Met Ser Tyr Asp
115 120 125
Ile His Gly Thr Trp Asp Gly Asn Asn Ala
130 135

<210> 31035
<211> 254
<212> PRT
<213> A.fumigatus

<400> 31035
Arg Ser Ser Arg Tyr Thr Lys Gln Val Val Asn Pro His Thr Asn Leu
1 5 10 15
Thr Glu Ile Ser Gln Gly Leu Asp Leu Leu Trp Arg Asn Asn Ile Pro
20 25 30
Ser Lys Lys Val Val Leu Gly Leu Gly Phe Tyr Gly Arg Ser Phe Thr
35 40 45
Leu Ser Asp Pro Ser Cys Asn Thr Pro Gly Cys Pro Phe Ala Ser Gly
50 55 60
Ala Asn Pro Gly Glu Cys Thr Gly Gln Ala Gly Ile Leu Ser Asn Ala
65 70 75 80
Glu Ile Asn Arg Val Ile Arg Thr His Asp Leu Thr Pro Val Met Asp
85 90 95
Lys Ala Ala Gly Val Lys Tyr Ile Thr Trp Asp Asn Asn Gln Trp Val
100 105 110
Ser Tyr Asp Asp Ala Asp Thr Leu Lys Ile Lys Met Asp Phe Ala Asn
115 120 125
Lys Leu Gly Leu Gly Gly Thr Ser Arg Leu Pro Arg Ser Ile Phe Thr
130 135 140
Ala Glu Asp Arg Thr Val Ser Asp Ser His Val Val Val Trp Ala Leu
145 150 155 160
Asp Leu Asp Asn Ala Asp Ser Gln Ser Ala Gln Tyr Leu Asn Ser Gly
165 170 175
Gly Asn Met Thr Asn Thr Asn Gly Phe Ser Ile Ala Lys Lys Ala Ala
180 185 190
Asp Thr Gln Gln Ala Val Ala Ala Lys Leu Ala Phe Trp Thr Pro Cys
195 200 205

```
Met Thr Glu Lys Glu Arg Lys Val Leu Gly Cys Pro Gly Gly Arg Cys
    210                 215                 220
Leu Ser Ser Pro Cys Gly Phe Thr Asp Ser Ala Lys Phe Ser Cys Pro
225                 230                 235                 240
Arg Arg Val Pro Arg Ala Ala Ser Arg Ala Trp Lys Gly Val
                245                 250
```

<210> 31036
<211> 110
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (91)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31036

```
Ser Lys Ile Cys Asp Gln Arg Cys Pro Lys Gly Tyr Ile Tyr Leu Thr
1               5                   10                  15
Gln Asn Thr His Pro Ala Gly Asp Lys Lys Asp Cys Ala His Gly Thr
            20                  25                  30
Tyr Ile Ser Val Cys Cys Glu Asp Ile Glu Thr Ile Ala Gln Val Cys
        35                  40                  45
Pro Asn Gln Tyr Ser Ser Asp Ile Ile Phe Ser Gly Ser Phe Ser Asn
    50                  55                  60
Met Gly Ala Val Asp Ser Ser Phe Ser Leu Lys Ser Ala Thr Ser Lys
65                  70                  75                  80
Arg Asn Asn Pro Arg Leu Thr Asn Phe Val Xaa Glu Asn Asp Pro Thr
                85                  90                  95
Phe Ser Ser Val Val Arg Phe Arg Ile Leu Phe Pro His Ile
            100                 105                 110
```

<210> 31037
<211> 108
<212> PRT
<213> A.fumigatus

<400> 31037

```
Thr Leu Ile Gln Val Phe Ile Ala Ile Gly Gly Trp Asp Ala Gly Gly
1               5                   10                  15
Lys Val Phe Ser Asp Met Val Ser Thr Ala Glu Asn Arg Ala Thr Phe
            20                  25                  30
Ile Lys Ser Val Val Gln Phe Cys Gln Thr Gln Ala Phe Asp Gly Ile
        35                  40                  45
Asp Ile Asp Trp Glu Cys Met Cys Pro Tyr Cys Ser Leu Pro Asp Trp
    50                  55                  60
Ser His His Ser Ser His Arg Pro Cys Cys Arg Arg Ser Trp Trp Ala
65                  70                  75                  80
Ser Gly Arg Phe Cys Gln Leu Arg His Leu Cys Gln Arg Ala Gln Val
                85                  90                  95
Arg Gly Trp Thr Ala Trp Asp Leu Ile Asp Ser Ala
            100                 105
```

<210> 31038
<211> 70

<212> PRT
<213> A.fumigatus

<400> 31038
Ser Leu Val Ala Pro Leu Ala Asp Pro Ser Ser Pro Val Val Lys Thr
1 5 10 15
Ile Arg Ser Ile Gly Leu Ala Thr Ala Leu Leu Ala Leu Ser Asn Ser
20 25 30
Phe Ala Asn Ala His Gly Ser His Ala Ser Glu Gln Asn Pro Ser Ser
35 40 45
Asp Trp Ala Thr Arg His Met Gln Gly Ser Ser Leu His Arg Arg His
50 55 60
Ser Ile Glu Asn His His
65 70

<210> 31039
<211> 80
<212> PRT
<213> A.fumigatus

<400> 31039
Thr Val Thr Arg Ser Arg Ile Arg Pro Gly His His Gly Asp Ile Glu
1 5 10 15
Tyr Glu Tyr Glu Ile His His Phe Glu Arg Phe His Gly Glu Asp Ala
20 25 30
Lys Leu Glu Asp Leu Thr His Pro Glu Asp Ile Glu His Phe Arg Arg
35 40 45
His Asp Glu Glu Glu Asp Ala Thr Asp Arg Leu Glu Gln Leu Glu Arg
50 55 60
Met Pro Ile Val Glu Ala Asn Ile Pro Gln Lys Phe Leu Arg Arg Ser
65 70 75 80

<210> 31040
<211> 123
<212> PRT
<213> A.fumigatus

<400> 31040
Lys Pro Pro Leu Thr Ile Tyr Leu Thr Glu Glu His His Ile Asp Ser
1 5 10 15
Phe Asp Ala Gly Ser Phe Phe Thr Leu His Asp Tyr Asp Ser Ser Gly
20 25 30
Ala Trp Thr Pro Asp Glu Val Arg Lys Thr Tyr Gly Met Asp Asp Glu
35 40 45
Ser Asn Ser Gly Val Thr Glu Glu Arg Lys Gln Gln Ala Leu Arg Glu
50 55 60
Val Phe Ala Leu Phe Asp Thr Gly Ser Ser Gly Val Ile Thr Arg Asp
65 70 75 80
Asn Trp Met Arg Leu Ile Ser Ala Gly Lys Arg Leu Pro Asp Leu Gly
85 90 95
Phe Val Pro Asp Thr Met Ala Ile Leu Asn Thr Ser Met Lys Ser Ile
100 105 110
Ile Ser Arg Asp Phe Thr Gly Arg Thr Pro Ser
115 120

<210> 31041

<211> 460
<212> PRT
<213> A.fumigatus

<400> 31041

```
Gly Ser Gln His Arg Pro Lys Trp Gln Asp Asn Met His Ser Asp Asp
1               5                  10                  15
Pro Thr Gly Asp His Thr Pro Asp Glu Arg Val Lys Lys Pro Thr Thr
            20                  25                  30
His Lys Arg Glu Pro Lys Ser Arg Asn Lys Cys Ser Asn Pro Leu Arg
        35                  40                  45
Lys Gly Ile Gln Asn Phe Val Thr Arg His Ile Pro Ser Asp Asp Leu
    50                  55                  60
Ala Lys His Gly Met Ser Leu Glu Ser Leu Glu Ser Ala Leu Pro Lys
65                  70                  75                  80
Arg Phe Thr Val Tyr Glu Gln Leu Leu Leu Leu Pro Val Asn Ala Leu
                85                  90                  95
Ser Asp Pro Pro Ala Trp Gly Ser Leu Tyr Ala Ser Leu Asp Ser Gln
            100                 105                 110
Lys Arg Arg Leu Leu Phe Glu Ser Ile Ala Thr Ala Phe Gly Arg Met
        115                 120                 125
Gly Val Thr Arg Ile Ala Met Asn Ala Pro Ile Ala Pro Met Asn Thr
    130                 135                 140
Gln Gly Gly Glu Asn Arg Met Arg Ser Pro Thr Gly Leu Ile Pro Leu
145                 150                 155                 160
Tyr Gly Asp Phe Gly Leu Val Pro Ile Leu Gly Arg Arg Glu Cys Ala
                165                 170                 175
Ala Asp Ala Gly Arg Leu Pro Ala Cys Val Leu Gly Ala Asp Tyr Ala
            180                 185                 190
Glu Ser Gly Asp Cys Ala Asp Leu Gly Pro Ala Val Tyr Asp Val Phe
        195                 200                 205
Ser Gly Gly Ile Ser Gln Arg Ser Pro Gly Phe Trp Val Lys Glu Ser
    210                 215                 220
Ala Leu Lys Gly Leu Met Lys Ala Pro Leu Gly Lys Arg Ser Thr Ala
225                 230                 235                 240
Leu Thr Val Val Asp Leu Tyr Ala Gly Ile Gly Tyr Leu Phe Phe Ser
                245                 250                 255
Tyr Leu Lys Arg Gly Val Lys Arg Val Trp Gly Trp Glu Ile Asn Gly
            260                 265                 270
Trp Ser Val Glu Gly Leu Arg Arg Gly Cys Thr Glu Asn Gly Trp Gly
        275                 280                 285
Cys Lys Val Val Gly Ile Gly Asn Asp Gly Thr Leu Ser Glu Ser Val
    290                 295                 300
Pro Asp Leu Val Asp Ser Leu Gln Asp Ser Asp Arg Val Val Leu Phe
305                 310                 315                 320
His Gly Asp Asn Lys Phe Ala Ala Arg Val Met Gly Glu Ile Lys Gly
                325                 330                 335
His Met Glu Arg Arg Asp Ala Trp Asn Arg Ile Arg His Val Asn Leu
            340                 345                 350
Gly Leu Leu Pro Ser Ser Arg Gly Ala Trp Ser Asp Ala Cys Ala Met
        355                 360                 365
Ile Asp Leu Gln Leu Gly Gly Trp Met His Val His Glu Asn Val Asp
    370                 375                 380
Val Gln His Ile Asp Ala Lys Lys Gln Glu Ile Ile Thr Glu Ile Gly
385                 390                 395                 400
Arg Leu Arg Ala Ile Ala Phe Pro Ser Ala Val Gln Gln Pro Ile Glu
```

```
                405                 410                 415
Cys Arg His Ile Glu Asn Val Lys Thr Tyr Ala Pro Gly Val Met His
            420                 425                 430
Cys Val Phe Asp Ile Lys Leu Pro Pro Ser Gly Glu Thr Pro Thr Gly
        435                 440                 445
Leu Glu Leu Ser Arg Ala Ser Lys Gln Ser Pro Ser
    450                 455                 460
```

<210> 31042
<211> 68
<212> PRT
<213> A.fumigatus

<400> 31042

```
Phe Leu Phe Met Glu Thr Leu Ala Trp Cys Pro Phe Trp Asp Gly Glu
1               5                   10                  15
Asn Ala Gln Pro Thr Gln Glu Asp Phe Gln Arg Ala Phe Trp Val Gln
            20                  25                  30
Thr Met Gln Asn Gln Gly Ile Val Gln Ile Trp Ala Pro Leu Tyr Thr
        35                  40                  45
Met Phe Ser Arg Gly Glu Tyr His Arg Glu Ala Pro Asp Phe Gly Ser
    50                  55                  60
Arg Asn Leu Leu
65
```

<210> 31043
<211> 103
<212> PRT
<213> A.fumigatus

<400> 31043

```
Leu Ser His Glu Ala Phe Glu Glu Ala Glu Arg Arg Pro Asp Asn His
1               5                   10                  15
His Leu Thr Thr Thr Pro Asp Ser Ser Pro Ile Ser Pro Thr Pro Pro
            20                  25                  30
Val Thr Arg Asp Glu Phe Glu Tyr Tyr Asn His Glu Ile Tyr Ser Ile
        35                  40                  45
Ser Asn Asn Lys Pro Tyr Cys Arg Tyr Glu Ser Leu Asn Ser Lys Pro
    50                  55                  60
Ser Ser Ser Ser Arg Pro Pro Gln Lys Cys Leu Ser Lys Thr Ser Leu
65                  70                  75                  80
Leu Thr Gly Thr Glu Leu Asn Ser Phe Thr Trp Pro Ser Ala Ile Arg
                85                  90                  95
Ser Gln Gly Val Gln Arg Phe
            100
```

<210> 31044
<211> 60
<212> PRT
<213> A.fumigatus

<400> 31044

```
Pro His Pro Leu Thr Asp Lys Ser Arg Ile Ser Gln Ser Asn Gly Arg
1               5                   10                  15
Glu Arg Pro Tyr Ser Ser Arg Thr Val Ser Gly Ile Ile Pro Ser Thr
            20                  25                  30
```

```
Ser Ile Leu Ala His Glu Met Tyr Leu Pro Asp His Arg Ser Ser Ala
        35                  40                  45
Arg Gly Leu Phe Ile Tyr Glu Val Ile Arg Ala Pro
    50                  55                  60

<210> 31045
<211> 495
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3),(13)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31045
Met Leu Xaa Val Arg Leu His Thr Met Lys Ala Trp Xaa Pro Ala Val
1               5                   10                  15
Glu Val Asp Gly Tyr Asp Thr Asp Asp Glu Asn Val Ala Asn Ala Ser
            20                  25                  30
Gln Asn Val Glu Leu Ala Lys Gln Arg Val Gly Glu Ala Glu Arg Arg
        35                  40                  45
Asn Glu Val Ala Ile Thr Pro Gly Tyr Asn Leu His Gln Val Pro Glu
    50                  55                  60
Gln Thr Arg Leu Asp His Ser Ser Asp Leu Ile Gln Asp Tyr Pro Asp
65                  70                  75                  80
Asp Glu Ala Glu Glu Glu Glu Arg Leu Leu Asp Glu Met Thr Ser Gly
                85                  90                  95
Tyr Val Met Asp Asp Phe Ala Phe Asp Leu Gln Ser Lys Ser Ala Leu
            100                 105                 110
Pro His Gln Ser Gly Ser Ser Val Leu Ser Ser Arg Thr Trp Glu Asn
        115                 120                 125
Ser Val Val Pro Ile Ser Ala Thr Ala Thr Pro Gly Val Thr Leu Ala
    130                 135                 140
Pro Leu Glu Glu Asp Glu Val Val Leu Glu Asp Gln Ser Glu Lys Ser
145                 150                 155                 160
Gln Ser Ala Leu Thr Pro Leu Glu Phe Asn Leu Ala Ser Ser Pro His
                165                 170                 175
Val Pro Ser Cys Pro Pro Lys Gln Ser Ser Val Leu Thr Ala Ser Pro
            180                 185                 190
Ser Val Arg Ala Arg Arg Met Ser Gly Gln Asn Pro Thr Glu Leu Lys
        195                 200                 205
Val Glu Thr Ser Ser Cys Pro Lys Val Gly Asp Asp Ala Leu Thr Gln
    210                 215                 220
Gly Ser Ala Asp Thr Ala Thr Phe Arg Pro Pro Pro Val Pro Lys Asn
225                 230                 235                 240
Gly Ser Gln Thr Leu Ser Ser Ala Asn Ser Ile Thr Lys Thr Pro Ala
                245                 250                 255
Pro Ala Ser Val His Pro Ser Ala Val His Leu Asn Arg Arg Asn Ala
            260                 265                 270
Ser Ile Ala Ser Leu Ala Glu Asp Gly Ser Thr Ile Glu Val Leu Glu
        275                 280                 285
Lys Val Ile Thr Glu Glu Gly Lys Pro Tyr Ala Lys Met Ser Lys Val
    290                 295                 300
Pro Ser Pro Ala Arg Leu Ile Gly Lys Val Pro Ser Ala Pro Asp Asn
305                 310                 315                 320
```

```
Leu Gly Lys Leu Asn Ser Gly Leu Lys Ser Phe Arg Pro Arg Asn Val
                325                 330                 335
Ser Val Pro Ala Pro Asp Val Ser Ala Asn Ser Pro Glu Thr Pro Ser
            340                 345                 350
Ser Gly Ala Phe Pro Asp Leu His Lys Gly Ala Ala Ile Gly Pro Ala
        355                 360                 365
Pro Ser Leu Pro Thr Pro Ile Gly Ala Thr Phe Ala Pro Ser Gly Leu
    370                 375                 380
Thr Ser Gly Gly Leu Tyr Leu Phe Asp Ser His Ile His Ser Pro Thr
385                 390                 395                 400
Ser Pro Gly Ser Pro Asn Pro Met Ala Ala Asn Ala Pro Ile Pro Leu
                405                 410                 415
Glu Pro Cys Pro Glu Ser Phe Leu Leu Arg Pro Phe Trp Leu Met Arg
            420                 425                 430
Cys Ile Tyr Gln Thr Ile Ala His Pro Arg Gly Gly Tyr Leu Ser Thr
        435                 440                 445
Lys Leu Phe Val Pro His Asp Val Trp Gly Val Lys Asn Val Lys Leu
    450                 455                 460
Arg Ala Val Glu Glu Lys Val Ser Asn Cys Asp Leu Leu Thr Ala Ala
465                 470                 475                 480
Leu Leu Lys Leu Ala Lys Val Asp Thr Tyr Asp Ala Asp Ala Val
                485                 490                 495
```

<210> 31046
<211> 94
<212> PRT
<213> A.fumigatus

<400> 31046

```
Pro His Thr Leu Arg Thr His Pro Asn Pro Thr Leu Ser Pro Thr Leu
1               5                   10                  15
Lys Val Val Thr Ala Leu Pro Thr Ser Arg Thr Val Pro Ala Pro Ser
            20                  25                  30
Trp Pro Arg Ala Ile Pro Leu Cys Leu Asn Ser Arg Ser Val Pro Gln
        35                  40                  45
Arg Pro Ala Trp Glu Ile Ser Thr Lys Thr Ser Glu Gly Trp Ile Val
    50                  55                  60
Arg Leu Ile Val Ser Gly Met Thr Ser Pro Leu Ser Glu Pro Leu Lys
65                  70                  75                  80
Thr Leu Asn Ser Ile Val Leu Asp Ile Gly Met Ala Leu Gln
                85                  90
```

<210> 31047
<211> 213
<212> PRT
<213> A.fumigatus

<400> 31047

```
Leu Pro Ser Arg Ser Ala Thr Arg Leu Gly Leu Asp Gly Cys Ala Arg
1               5                   10                  15
Cys Val Val Ile Ala Thr Ser Ala Leu Ala Val Cys Thr Phe Thr Cys
            20                  25                  30
Leu Tyr Thr Leu Thr Ile Asp Gly Asn Val Met Met Gln Gly His Asp
        35                  40                  45
Gln Tyr Cys Gln Gln Arg Glu Gln Tyr Gly Lys Gly Asn Thr Glu Ile
    50                  55                  60
```

```
Gly Ala Phe Ala Thr His Ala Val Trp His Glu Ser Met Leu Val Lys
65                  70                  75                  80
Leu Pro Asp Asp Leu Glu Pro Glu Tyr Ala Ala Pro Leu Met Cys Gly
                85                  90                  95
Gly Ala Thr Val Trp Cys Ala Leu Thr Cys Tyr Asp Ile Lys Pro Gly
            100                 105                 110
Glu Arg Val Gly Ile Gln Gly Ile Gly Gly Leu Gly His Met Ala Ile
        115                 120                 125
Gln Phe Ala Ser Lys Leu Gly Cys Asp Val Val Val Phe Ser Ser Ser
    130                 135                 140
Ala Ala Lys Lys Asp Glu Ala Lys Gly Leu Gly Ala Asn Glu Phe His
145                 150                 155                 160
Thr Leu Glu Asn Gly Ala Val Gly Asp Ala Val Arg Pro Val Lys His
                165                 170                 175
Leu Leu Trp Cys Gly Asn Glu Pro Pro Asp Phe Ser Lys Leu Val Pro
            180                 185                 190
Pro Ser Leu Ser Ala Gly Asp Cys Asn Leu Pro Leu Phe Gln Ser Ile
        195                 200                 205
Ser Ala His Val Ser
    210
```

<210> 31048
<211> 237
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (153)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31048

```
Arg Arg Leu Cys Phe Ala Arg Glu Arg Gly Gly Tyr Glu Val Cys Pro
1               5                   10                  15
Val Met Thr Arg Leu Asn Leu Glu Trp Ser Ala Ser Ala Leu Ser Asp
            20                  25                  30
Asp Cys Ser Glu Glu Glu Ile His Gln Gln Ile Asn Thr Asn Val Tyr
        35                  40                  45
Gly Pro Met Arg Val Ile Lys Ala Ala Leu Pro Phe Met Arg Ala Gln
    50                  55                  60
Lys Ser Gly Thr Ile Val Asn Ile Ser Ser Ile Ala Gly Leu Gln Ala
65                  70                  75                  80
Gln Pro Ser Cys Ser Leu Tyr Ala Ala Ser Lys Phe Ala Leu Glu Gly
                85                  90                  95
Thr Phe Arg Arg Lys Ser Glu Met Asn Pro Arg Leu Thr Ile Ser Arg
            100                 105                 110
Phe Leu Arg Ser Leu Ser Lys Glu Val Ala Pro Phe Asn Ile Arg Val
        115                 120                 125
Leu Ile Val Lys Pro Gly Ala Phe Arg Thr Asn Phe Leu Ser Ala Tyr
    130                 135                 140
Ala Thr Leu Pro Ala Gly Leu Asn Xaa Ala Tyr Glu Gly Thr Thr Ile
145                 150                 155                 160
Asp Gln Val Leu Gln Leu Phe Gln Ser Arg Ser Gly Lys Gln Glu Gly
                165                 170                 175
Asp Pro Val Lys Ala Val Glu Arg Ile Ile Asp Val Val Gln Gly Thr
            180                 185                 190
```

```
Gly Val Gly Ala Gly Lys Thr Ser Cys Leu Arg Leu Pro Leu Gly Arg
        195                 200                 205
Asp Cys Ile Ala Arg Ala Lys Thr Lys Leu Glu Glu Val Arg Lys Asn
    210                 215                 220
Leu Asp Glu Met Glu Glu Ile Ala Cys Ser Thr Asp Met
225                 230                 235

<210> 31049
<211> 117
<212> PRT
<213> A.fumigatus

<400> 31049
Val Gln Glu Thr Val Thr Tyr Leu Cys Ser Arg Val Phe Pro Leu Met
1               5                   10                  15
Ser Pro Asp Ser Thr Ile Tyr Leu Leu Thr Val Ser Met Gln Gln Pro
            20                  25                  30
Pro Leu Pro Val Met Pro Leu Ile Ser Asn Gly Ile Arg Val Gln Gly
        35                  40                  45
Ser Ala Val Ala Ser Arg Val Ser Val Arg Lys Met Leu Arg Phe Val
    50                  55                  60
Ser Val His Arg Ile Arg Pro Ile Ile Met Thr Trp Pro Met Thr Lys
65                  70                  75                  80
Asp Gly Ile Gln Ala Ala Phe Gln Ile Leu Glu Gln Gly Lys Met Arg
                85                  90                  95
Tyr Arg Gly Val Ile Val Gly Gln Arg His Leu Met Gly Lys Pro Ala
            100                 105                 110
Val Glu Lys Met Gly
        115

<210> 31050
<211> 109
<212> PRT
<213> A.fumigatus

<400> 31050
Lys Ser Glu Thr Pro Asp Thr Met Ala Ala Pro Gln Thr Trp Leu Ile
1               5                   10                  15
Thr Gly Ala Ser Ser Gly Phe Gly Val Val Leu Ala Glu Ala Val Leu
            20                  25                  30
Lys Ala Gly His Arg Val Val Ala Thr Ala Arg Asn Pro Ile Lys Ala
        35                  40                  45
Ala Gln Thr Tyr Pro Gln Ile Glu Ser Leu Gly Gly Thr Trp Leu Gln
    50                  55                  60
Leu Asp Val Thr Arg Pro Asp Thr Lys Glu Thr Val Glu Asp Ala Ile
65                  70                  75                  80
Arg Lys Gln Gly Arg Ile Asp Val Val Val Asn Asn Ala Gly Tyr Ala
                85                  90                  95
Leu Leu Gly Ser Val Glu Asp Met Arg Tyr Ala Leu Ser
            100                 105

<210> 31051
<211> 141
<212> PRT
<213> A.fumigatus
```

<400> 31051
Lys Ser Tyr Asp Gly Leu Ser Gly Arg Glu Gln Tyr His Leu Pro Ile
1 5 10 15
Asn Ser Arg Val Gln Asn Leu Thr Tyr His Cys Lys Ala Met Pro Met
20 25 30
Ser Lys Thr Ile Glu Phe Asn Val Phe Lys Gly Ser Glu Ser Gly Asp
35 40 45
Val Ile Pro Asp Thr Ile Arg Arg Thr Ile Gln Pro Ser Glu Val Phe
50 55 60
Val Glu Ile Ser His Ala Gly Leu Cys Gly Thr Asp Arg Leu Phe Lys
65 70 75 80
His Lys Gly Ile Ala Leu Gly His Glu Gly Ala Gly Thr Val Arg Asp
85 90 95
Val Gly Ser Ala Val Thr Thr Phe Lys Val Gly Asp Lys Val Gly Phe
100 105 110
Gly Trp Val Arg Lys Val Cys Gly His Cys Asp Phe Cys Val Ser Gly
115 120 125
Met Tyr Phe Tyr Leu Pro Leu His Pro Tyr Asp Arg Trp
130 135 140

<210> 31052
<211> 114
<212> PRT
<213> A.fumigatus

<400> 31052
Arg Tyr Arg Ile Val Asn Ile His Thr Ile Asp Gly Ile Pro Asn Met
1 5 10 15
Thr Asp Pro Thr Pro Ser Cys Leu Leu Thr Asn Ser Thr Asp Thr Met
20 25 30
Pro Pro Asn Arg Val Ser Asn Leu Ser Pro Asn Leu Leu Asn Gly Ile
35 40 45
Phe Ala Ser Leu Ser Gln Pro Ser Arg Arg Trp Ser Leu Leu Arg Thr
50 55 60
Leu Gln Ser Asp Asn Pro Arg Asp Ile Asn Gly Glu Leu Arg Gly Thr
65 70 75 80
Ala Ser Phe His Pro Leu Arg His Ser Ser Ala Ala Ser Asp His Arg
85 90 95
Asp Val Val Tyr Arg Glu Glu Gly Glu Leu Pro Asn Thr Phe Gly Pro
100 105 110
Ala Ser

<210> 31053
<211> 62
<212> PRT
<213> A.fumigatus

<400> 31053
Val Leu Lys Tyr Tyr Tyr Asn Gly Arg Met Gly Ile Arg Thr Ile Gln
1 5 10 15
Ile Leu Ile Val Val Pro Ile Phe Ser Ala Leu Asp Leu Met Val Leu
20 25 30
Leu Tyr Ala Ala Cys Asp Leu Trp Tyr Pro Ser Ser Ser Ile Lys Tyr
35 40 45
Leu Asp His Gln Ile Lys Pro Val Pro Glu Asn Thr Ser Thr

50 55 60

<210> 31054
<211> 70
<212> PRT
<213> A.fumigatus

<400> 31054
His Val Met Ile Cys Ser Thr Gln Lys Ser Glu Lys Val Ile Tyr Ser
1 5 10 15
Ser Met Arg Ala Ile Thr Val Val Met Gln Gly Gln Phe Arg Lys Met
20 25 30
Ile Cys Phe Pro Trp Glu His Gly Ala Cys Ile Ser Gly Ser Ser Asp
35 40 45
Asp Pro Leu Phe Pro Glu Arg Pro Val Pro Ser Phe Thr Ser Ala Asn
50 55 60
Pro Tyr Leu Asn Gln Thr
65 70

<210> 31055
<211> 64
<212> PRT
<213> A.fumigatus

<400> 31055
Ala Ser Asn Trp Tyr Glu Ser Ser His Leu Gly Ser Trp Val Arg Val
1 5 10 15
Glu Lys Ala Arg Ala Gly Tyr Val Val Pro Thr Leu Val Trp Gly Tyr
20 25 30
Leu Met Phe Thr Val Pro Leu Thr Thr Glu Tyr Tyr Arg Val Val Tyr
35 40 45
Cys Leu Asp Ser Asp Asp Ser Lys Thr Leu Ala Val Leu His Trp Leu
50 55 60

<210> 31056
<211> 78
<212> PRT
<213> A.fumigatus

<400> 31056
Leu Pro Pro Val Asn Phe Leu Gln Tyr Leu Leu Gln Leu Glu Pro Glu
1 5 10 15
Thr Ala Ser Asn Val Pro Glu Asp Ala Thr Ser Glu Ser Pro Leu Trp
20 25 30
Gly Tyr Arg Val Gly Trp Ser Ile Ser Gly Asn Gly Ala Ser Glu Tyr
35 40 45
His Cys Glu Arg Thr Cys Pro Cys Arg Glu His Thr Cys Thr Gly Asp
50 55 60
His Gln Cys Leu Glu Gly Glu Ile Ile Trp Leu Ala Asn Ala
65 70 75

<210> 31057
<211> 264
<212> PRT
<213> A.fumigatus

<400> 31057
Ser His Pro Leu Asp Thr Gly Asp Arg Pro Tyr Met Cys Val Leu Cys
1 5 10 15
Lys Asp Thr Phe Ser Arg Ser Asp Ile Leu Lys Arg His Phe Gln Lys
20 25 30
Cys Ser Ile Arg Arg Gly Asn Pro Thr Gly Ala Thr His Leu Ser His
35 40 45
Pro Gln Ala His Leu Lys Arg Ser Gln Ala Gln Ala Ala Ala Asn Thr
50 55 60
Ala Lys Ser Leu Gln Glu Glu Val Ser Ser Thr Val Pro Pro Ser Asn
65 70 75 80
Gly Ile Ala Gly Ala Thr Phe Ser Glu Gly Ala Val Asn Gly Asn Gly
85 90 95
Leu Gly Ala Gly Arg Pro Gly Phe Thr Asp Gln Gln Pro Leu Gly Phe
100 105 110
Thr Met Gln Ser Val Asn Gly Leu Gly Arg Gly Gln Pro Asp Asp Ala
115 120 125
Tyr Ala His Gly Gln Ala His Gln Arg Ala Ser Trp Met Ala Thr Pro
130 135 140
Lys Gln Asn Pro Tyr Leu Val Gln Pro Gly Thr Glu Ala Pro Asn Gln
145 150 155 160
Gln Leu Asn Val Asp Arg Pro Thr Leu Glu Gln Ala Lys Pro Ser Val
165 170 175
Val Asp Pro Lys Arg Pro Met Met Pro Gly Pro Asp Pro Asn His Gly
180 185 190
Gly Gly Leu Asp Trp Thr Ser Met Phe Gln Ala Gly Ala Ser Asp Gly
195 200 205
Tyr Ile Asn Gln Val Phe Pro Gln Ser Met Ala Ser Gly Gln Glu Pro
210 215 220
Ile Gln Ala Gln Val Glu Thr Glu Arg Lys Phe Tyr Pro Thr Thr Thr
225 230 235 240
Thr Ala Gly Pro Gln Glu Gly Gly Met Asn Gly Leu Tyr Leu Ala Ser
245 250 255
Thr Thr Leu Gly Gly Asp Gly Lys
260

<210> 31058
<211> 197
<212> PRT
<213> A.fumigatus

<400> 31058
Gln Glu Val Val Asp Ser Gly Asn Thr Asn Ile Gly Leu Arg Asp Gln
1 5 10 15
Arg Leu Ala Leu Gln Trp Val Gln Glu Asn Ile Ala Ala Phe Gly Gly
20 25 30
Asp Pro Ala Lys Val Thr Ile Trp Gly Glu Ser Ala Gly Gly Met Ser
35 40 45
Val Gly Tyr His Leu Thr Ala Tyr Gly Gly Arg Asp Asp Gly Leu Phe
50 55 60
Arg Gly Ala Ile Met Gln Ser Gly Gly Ser Ile Ser Val Ser Pro Ala
65 70 75 80
Ser Tyr Thr Val Phe Gln Gly Ser Tyr Asp Asp Leu Val Ser Lys Val
85 90 95
Gln Cys Ser Asp Asp Glu Asp Thr Leu Gln Cys Leu Arg Asp Val Pro
100 105 110

```
Phe Glu Thr Leu Asn Ala Ala Leu Asn Gly Thr Gly Gly Ser Pro Asn
        115                 120                 125
Tyr Arg Phe Ala Pro Val Val Asp Gly Asp Phe Ile Pro Asp Arg Gly
    130                 135                 140
Ser Val Leu Leu Lys Lys His Arg Tyr Val Lys Val Pro Ile Ile Ala
145                 150                 155                 160
Gly Thr Asn Thr Asp Glu Gly Thr Ala Phe Gly Pro Phe Gly Ile Asn
                165                 170                 175
Thr Thr Glu Gln Phe Tyr Glu Tyr Leu Thr Gly Leu Leu Glu Cys Ala
            180                 185                 190
Phe Thr Phe Tyr His
        195

<210> 31059
<211> 343
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (271)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31059
Leu Tyr Gln Ile Asn Gly Pro Gln Pro Ser Asn Thr Thr Thr Thr Ile
1               5                   10                  15
Asn Thr Asp Asn Ile Ile Thr Ser Thr Asp Lys Val Arg Glu Ser Leu
            20                  25                  30
Arg Met Thr Ser Pro Ser His Arg Arg Leu Leu Lys Glu Ala Ala Glu
        35                  40                  45
Leu Ala Ser His Pro Ser Pro His Phe Thr Ala His Pro Val Ser Asp
    50                  55                  60
Ser Asn Leu Tyr Asp Trp His Phe Thr Leu Ala Gly Pro Pro Pro Pro
65                  70                  75                  80
Ser Pro Tyr Ala Gly Gly Ile Tyr His Gly Arg Ile Val Leu Pro Pro
                85                  90                  95
Ser Tyr Pro Leu Arg Pro Pro Ser Phe Arg Phe Leu Thr Pro Ser Gly
            100                 105                 110
Arg Phe Glu Val Asn Arg Glu Ile Cys Leu Ser Ile Ser Gly His His
        115                 120                 125
Glu Glu Thr Trp Gln Pro Ala Trp Gly Ile Arg Thr Ala Leu Leu Ala
    130                 135                 140
Leu Arg Ser Phe Met Asp Ala Asp Ala Lys Gly Gln Val Gly Gly Leu
145                 150                 155                 160
Asp Val Asp Val Ala Val Arg Arg Arg Tyr Ala Val Glu Ser Arg Gly
                165                 170                 175
Trp Val Cys Glu Val Cys Glu Gly Gly Arg Ser Asn Glu Glu Val Leu
            180                 185                 190
Arg Ala Trp Arg Glu Val Cys Arg Ala Lys Gly Val Glu Val Glu Glu
        195                 200                 205
Asp Glu Val Gln Gly Ala Gly Ala Gly Ala Gly Gly Thr Ala Glu Arg
    210                 215                 220
Thr Pro Ser Gly Glu Ala Glu Pro Thr Pro Glu Arg Asp Pro Glu Asp
225                 230                 235                 240
Thr Thr Asp Ala Asn Ala Asn Ala Asn Ala Glu Thr Glu Thr Gly Thr
                245                 250                 255
```

```
Glu Ser Ser Gln Lys Glu Ser Glu Pro Arg Pro Ser Lys His Xaa Thr
            260                 265                 270
Pro Gln Gln Gln Val Gln Val Pro Val Pro Ser Val Pro Ser Ala Pro
        275                 280                 285
Ala Pro Thr Pro Ala Pro Thr His Thr Thr Pro Val Pro Thr Thr Thr
    290                 295                 300
Ala Thr Thr Ser Gln Pro Thr Thr Thr Asp Ala Pro Trp Leu Asp Arg
305                 310                 315                 320
Ala Ile Leu Gly Val Leu Val Ala Leu Ala Phe Met Ile Val Arg Arg
                325                 330                 335
Leu Ala Lys Ser Glu Glu Val
            340
```

<210> 31060
<211> 92
<212> PRT
<213> A.fumigatus

<400> 31060

```
Tyr Pro Pro Gly Leu Val Leu Glu Leu Ala Gln Leu Pro Pro Lys Ala
1               5                   10                  15
Ser Ser Pro Arg Tyr His Gln His Gln His Gln His Pro Gly Pro His
            20                  25                  30
Pro Pro Gln Pro Pro Pro Pro Trp His Asp Thr Pro Pro Ala Thr Pro
        35                  40                  45
Ser Thr Pro Pro His Cys Ser Ser Leu Pro His Lys Pro Arg Thr Pro
    50                  55                  60
Thr Pro Gly Ser Gln Pro His Thr Ala Ala Ser Gln Gln His Gln His
65                  70                  75                  80
Pro Thr Leu Pro Pro Ala Pro Ser His Pro His Pro
                85                  90
```

<210> 31061
<211> 256
<212> PRT
<213> A.fumigatus

<400> 31061

```
Leu Gln Glu Ile Arg Ser Thr Leu Glu Lys Ala Ala Ser Ile Thr Glu
1               5                   10                  15
Pro Ser Val Asp Val Arg Gln Phe Phe Ala Phe Pro Pro Glu Asp Ile
            20                  25                  30
Ala Asn Ser Glu Asp Asn Lys Val Pro Ala Leu Leu Ile Tyr Ala Leu
        35                  40                  45
Asn Ile Phe Ser Lys Cys Leu Ile Ser Ser Leu Ile Thr Glu Ala Ser
    50                  55                  60
Ile Asn Gln Gly Gln Ala Glu Pro Ile Gly Ile Val Ala Ala Gln Ile
65                  70                  75                  80
Phe Ser Met Asp Ala Phe Ile Tyr Lys Gly His His Met Val Asp Ile
                85                  90                  95
Leu Trp Ala Lys Tyr Arg Val Val Cys Pro Ala Leu Trp Gly Phe Tyr
            100                 105                 110
Gly Ser Glu Lys Thr Glu Ala Gly Arg Lys Ala Ile Gly Trp Trp Arg
        115                 120                 125
Glu Gly Pro Asp Gly Pro Phe Ile Ser Glu Gln Gly His Ala Asp Arg
    130                 135                 140
```

```
Met Thr Ala Leu Gly Ala Gly Tyr Ala Ala Leu Thr Leu Arg Asn Phe
145                 150                 155                 160
Gly Lys Thr Pro Arg Arg Asn Pro Phe Pro Asn Thr Met Phe Trp Tyr
                165                 170                 175
Thr Met His Lys Ile Leu Met Ile Pro Pro Asn Glu Ile Gln Glu Thr
            180                 185                 190
His Ile Thr Leu Leu Ser Ala Met Leu Lys Thr Ser Val Glu Arg Ile
        195                 200                 205
Val Gly Phe Phe Gly His Met Gly Leu Ala Leu Ile Arg Arg Ala Ile
    210                 215                 220
Val Asp Leu Pro Asn Ser Leu Thr Arg Gln Ser Met Gly Val Asn Gln
225                 230                 235                 240
Leu Lys Leu Leu Arg Asp Ile Tyr Lys Arg Glu Lys His Ile Ile Ile
                245                 250                 255
```

<210> 31062
<211> 77
<212> PRT
<213> A.fumigatus

<400> 31062

```
Asn Glu Asn His Gly Ile Trp Asp Asn Tyr Pro Gly Leu Leu Ile Leu
1               5                   10                  15
Leu Gly Met Arg Met Pro Asp Arg Pro Thr Gly Arg Lys Val Thr Met
            20                  25                  30
Ile His Asp Ile Ser Gly Asn Lys His Lys His Ile Cys Phe Ser Thr
        35                  40                  45
Thr Tyr Val Ala Tyr Leu Asn Tyr Asn Gln Ser Arg Val Thr Ser Ser
    50                  55                  60
Ala Tyr Val Val Leu His Ala Val Val Ile Asp Leu Glu
65                  70                  75
```

<210> 31063
<211> 316
<212> PRT
<213> A.fumigatus

<400> 31063

```
Arg Gln Arg Thr Ala Gly Met Lys Pro Ala Pro Pro Pro Thr Arg Pro
1               5                   10                  15
Pro Gly Glu Thr Leu Lys Tyr Ala Ser Ala Ala Ala Ala Ala Ala Ala
            20                  25                  30
Ser Asp Lys Asn Gly Val Gly Ile Ala Pro Leu Pro Pro Pro Pro Gly
        35                  40                  45
Thr Ser Pro Ala Tyr Thr Ala Ala Ile Pro Val Ser Arg Ala Ser Ser
    50                  55                  60
Thr Ala Ser Pro Val Val Ser Ser Val Gln Pro Val Ser Lys Ala Ala
65                  70                  75                  80
Ala Thr Ala Thr Glu Glu Pro Gly Gly His Gly Arg Ser Lys Thr Pro
                85                  90                  95
Ala Leu Asn Pro Ser Ala Thr Ala Thr Pro Ala Ala Ala Ser Ala Ser
            100                 105                 110
Asn Thr Met Pro Ser Thr Pro Ala Thr Asp Lys Ala Asn Thr Thr Ala
        115                 120                 125
Ala Lys Glu Gln Ser Ala Thr Ala Asn Gly Glu Thr Ala Lys Glu Asp
    130                 135                 140
```

```
Glu Gln Arg Asp Glu Ser Ile Tyr His Leu Pro Pro Gly Leu Gln Asp
145                 150                 155                 160
Leu Ile Gln Ser Phe Glu Ile Thr Lys Ser Arg Ala Thr Asn Ser Ala
                165                 170                 175
Ser Ser Ser Ser Pro Ser Val Gln Arg Leu Leu Ala Ala Ser Leu Ala
            180                 185                 190
Thr Cys Pro Glu Pro Ala Asp Ala Glu Lys Pro Arg His Tyr Arg Pro
        195                 200                 205
Ser Asn Pro Tyr Asn Thr Pro Leu Tyr Tyr Pro Gln Glu Pro Leu Ala
    210                 215                 220
Ile Phe Asp Asp Pro Arg Leu Tyr Asp Thr Gly Arg Ile Asp Thr Asp
225                 230                 235                 240
Thr Leu Phe Tyr Leu Phe Tyr Tyr Arg Gln Gly Ser Tyr Gln Gln Tyr
                245                 250                 255
Leu Ala Ala Lys Ala Leu Lys Asn Gln Ser Trp Arg Phe His Lys His
            260                 265                 270
Tyr Gln Thr Trp Phe Gln Arg His Glu Glu Pro Lys Asn Ile Thr Glu
        275                 280                 285
Asp Tyr Glu Gln Gly Thr Tyr Arg Phe Phe Asp Tyr Glu Ser Thr Trp
    290                 295                 300
Tyr Val Ser Phe His Ser Ser Phe Leu Cys Phe Leu
305                 310                 315

<210> 31064
<211> 60
<212> PRT
<213> A.fumigatus

<400> 31064
Gln Asp Arg Cys Leu Arg Val Ser Arg Gly Thr His Asp Ser Thr Ile
1               5                   10                  15
Arg Thr Phe Ala Ser Ala Leu Ser Leu Ser Val Pro Leu Ala Leu Pro
            20                  25                  30
Gly Thr Ser Ser Trp Ala Val Val Leu Cys Gly Asp Phe Thr Leu Trp
        35                  40                  45
His Pro Phe Ser Arg Tyr Phe Ser Ser Lys Trp Tyr
    50                  55                  60

<210> 31065
<211> 199
<212> PRT
<213> A.fumigatus

<400> 31065
Glu Ser Gly Val Ala Pro Ser Glu Glu Ser Leu Pro Pro Thr Glu Cys
1               5                   10                  15
His Glu Leu Val Cys His His Leu Leu Asn Leu Met Pro Cys Asn His
            20                  25                  30
Ser Gln Pro Leu Leu Ile Leu Gly Thr Ala Ala Gly Pro Ala Cys Lys
        35                  40                  45
Thr Cys Arg Glu Lys Cys Arg Lys Cys Asp Arg Gly Arg Pro Lys Cys
    50                  55                  60
Gln Arg Cys Ile Ser Lys Gly Leu Glu Cys Gly Gly Tyr Pro Asp Leu
65                  70                  75                  80
Tyr Arg Phe Cys Gly Ile Ala Ser Arg Gly Arg Trp Lys Gly Ala Arg
                85                  90                  95
```

```
Val Pro Thr Pro Arg Asn Ile Lys Ser Lys Ser Thr Val Ala Glu Ser
            100                 105                 110
Gln Gln Val Ser Thr Thr Ala Thr Pro Asp Ser Val Thr Ser Gly Trp
        115                 120                 125
Thr Glu Gly Val Ser Thr Gln Pro Ser Ser Lys Lys Ser Ser Arg Ser
    130                 135                 140
Ala Thr Glu Leu Pro Asp Asp Ile Pro Lys Ile Leu Asn Leu Thr Gln
145                 150                 155                 160
Thr Glu Leu Leu Leu Ser His Cys Lys Leu Leu Leu Ala Gly Phe Trp
                165                 170                 175
Arg Ala Gly Asn Thr Asp Ala Arg Glu Val Gln Thr Lys Thr Ser Tyr
            180                 185                 190
Val Arg Ile Lys Leu Leu Arg
        195
```

<210> 31066
<211> 198
<212> PRT
<213> A.fumigatus

<400> 31066

```
Asp Met Asn Ile Gly Glu Lys Ala Arg Ile Ser Ala Ala Gly Gly Phe
1               5                   10                  15
Val Asp Phe Gly Arg Val Asn Gly Asn Leu Ala Leu Ser Arg Ala Ile
            20                  25                  30
Gly Asp Phe Glu Phe Lys Lys Ser Pro Glu Leu Ser Pro Glu Gln Gln
        35                  40                  45
Ile Val Thr Ala Tyr Pro Asp Val Thr Val His Glu Val Thr Asp Asp
    50                  55                  60
Asp Glu Phe Leu Val Ile Ala Cys Asp Gly Thr Ser Phe Cys Ile Val
65                  70                  75                  80
Gly Leu Ser Thr Ile Thr Pro Ser Cys Cys Pro Leu Leu Met Asp Leu
                85                  90                  95
Leu Val Gly Ile Trp Asp Cys Gln Ser Ser Gln Ser Val Val Glu Phe
            100                 105                 110
Val Arg Arg Gly Ile Ala Ala Lys Gln Glu Leu Tyr Arg Ile Cys Glu
        115                 120                 125
Asn Met Met Asp Asn Cys Leu Ala Ser Asn Ser Glu Thr Gly Gly Val
    130                 135                 140
Gly Cys Asp Asn Met Thr Met Ile Ile Ile Gly Leu Leu Asn Gly Lys
145                 150                 155                 160
Thr Lys Glu Glu Trp Tyr Asn Gln Ile Ser Glu Arg Val Ala Asn Gly
                165                 170                 175
Asp Gly Pro Cys Ala Pro Pro Glu Tyr Gly Lys Cys Leu Glu Asp Pro
            180                 185                 190
Met Val Gly Glu Gly Tyr
        195
```

<210> 31067
<211> 212
<212> PRT
<213> A.fumigatus

<400> 31067

```
Thr Ser Ser Glu Gly Gln Asp Glu Cys Cys Leu Tyr Gly Leu Ser Ala
1               5                   10                  15
```

```
Met Gln Gly Trp Arg Ile Ser Met Glu Asp Ala His Ala Ala Val Leu
            20                  25                  30
Asp Leu Gln Ala Lys Ser Thr Gly Gly Ser Glu Lys Pro Thr Asp Pro
        35                  40                  45
Asp Lys Arg Leu Ala Phe Phe Gly Val Tyr Asp Gly His Gly Gly Asp
    50                  55                  60
Lys Val Ala Leu Phe Ala Gly Glu Asn Val His Lys Ile Val Ala Lys
65                  70                  75                  80
Gln Glu Ala Phe Ala Lys Gly Asp Ile Glu Gln Ala Leu Lys Asp Gly
                85                  90                  95
Phe Leu Ala Thr Asp Arg Ala Ile Leu Glu Gly Lys Trp Thr Pro Leu
            100                 105                 110
Trp Gly Phe Trp Asn Ser Glu Phe Cys Ser Leu Val Ile Val Arg Leu
        115                 120                 125
Gly Val Leu Lys Glu Thr Asp Leu Leu Asp Pro Lys Tyr Glu Glu Glu
    130                 135                 140
Val Ser Gly Cys Thr Ala Ala Val Ser Val Ile Ser Lys Asn Lys Ile
145                 150                 155                 160
Trp Val Val Cys Thr Phe Asn Leu Tyr Pro Thr Ala Ile Thr Trp Arg
                165                 170                 175
Ser Gly Glu Arg Leu Ile Gly Met Val Gly Lys Arg Gly Arg Phe Thr
            180                 185                 190
Leu Ser Ile Gly Cys Lys Gly Pro Arg Lys Ala Ala Phe Phe Arg Pro
        195                 200                 205
Gln Ala Thr Glu
    210
```

<210> 31068
<211> 136
<212> PRT
<213> A.fumigatus

```
<400> 31068
Glu Met Val Val Ala Ala Glu Phe Arg Gly Pro Gly Ile Arg Asn Gln
1               5                   10                  15
Phe Glu Glu Thr Pro Asp Asn Tyr Asp Leu Glu Asn Asp Arg Ser Arg
            20                  25                  30
Gly Phe Ser Val Arg Ser Gly Arg Ile Ile Leu Leu Gly Asp Gly Thr
        35                  40                  45
Glu Leu Ile Pro Glu Gln Asn Asp Glu Glu Leu Phe Asp Gln Arg Glu
    50                  55                  60
Glu Asn Arg Asp Val Thr Asn His Leu Gln His Glu Ser Pro Asp Ser
65                  70                  75                  80
Ser Ala Arg Gly Asp Arg Glu Gly Thr Pro Gly Pro Gln Ser Lys Asn
                85                  90                  95
Glu Thr Thr Ser Lys Ala Glu Glu Thr Ser Thr Ala Ala Asn Leu Ser
            100                 105                 110
Glu Ser Pro Ser Ser Ala Asn Lys Asn Ser Ser Gly Ser Gly Thr Glu
        115                 120                 125
Ala Thr Glu Lys Ser Ala Ser Ser
    130                 135
```

<210> 31069
<211> 66
<212> PRT
<213> A.fumigatus

<400> 31069
Ala Asn Ala Gly Asp Ser Arg Ser Val Leu Gly Val Lys Gly Arg Ala
1 5 10 15
Lys Pro Leu Ser Phe Asp His Lys Pro Gln Asn Glu Gly Pro Cys Leu
20 25 30
Ile Ile Gln Pro Ser Gly Leu Ser Gln Leu Arg Tyr Glu Tyr Arg Arg
35 40 45
Glu Ser Ser Tyr Gln Cys Arg Trp Trp Leu Arg Arg Leu Trp Pro Ser
50 55 60
Gln Arg
65

<210> 31070
<211> 74
<212> PRT
<213> A.fumigatus

<400> 31070
Pro Thr Arg Tyr Ser Arg Met His Ser Lys Gly Lys Gly Ile Ser Ala
1 5 10 15
Ser Ala Ile Pro Tyr Ser Arg Ser Ala Pro Ala Trp Leu Lys Thr Thr
20 25 30
Pro Glu Gln Val Val Asp Gln Ile Cys Lys Leu Ala Arg Lys Gly Ala
35 40 45
Thr Pro Ser Gln Ile Gly Val Val Leu Arg Asp Ser His Gly Ile Ala
50 55 60
Gln Val Lys Val Val Thr Gly Thr Phe Ile
65 70

<210> 31071
<211> 170
<212> PRT
<213> A.fumigatus

<400> 31071
Phe Gly Tyr Leu Phe Tyr Asp Ile Leu Phe Thr Tyr Val Pro Asn Val
1 5 10 15
Phe Gln Thr Pro Tyr Gln Thr Cys Pro Leu Asp Leu His Thr Asp Ala
20 25 30
Phe Tyr Pro Ser Arg Ala Ser Glu Ile Asn His Arg Leu Val Glu Ile
35 40 45
Thr Asn Gly Ala Ala Glu Arg Ile Ile Arg Asp Ile His Glu Arg Glu
50 55 60
Ser Ala Lys Gln Thr Cys Ala Ile Gly Ile Asp Trp Ala Phe Glu Leu
65 70 75 80
Asp Asp Leu Val Glu Ile Val Gln Cys Phe Arg Gly Glu Ala Leu Ala
85 90 95
Thr Ile Cys Lys Val Met Ala Gln Glu Tyr Gln Gln Arg Gly Gly Gly
100 105 110
Ile Pro Asp Leu Phe Leu Trp Ser Val Glu Lys Lys Glu Val Met Phe
115 120 125
Val Glu Val Lys Ser Glu Asn Asp Arg Leu Ser Asp Thr Gln Arg Leu
130 135 140
Trp Ile His Val Leu Thr Gly Ala Gly Val Arg Val Glu Leu Cys Asn
145 150 155 160

Ala Val Ala Lys Glu Val Arg Arg Ser Ser
165 170

<210> 31072
<211> 196
<212> PRT
<213> A.fumigatus

<400> 31072
Gly Tyr Val Glu Cys Ser Ala Val Asn Ser His Asn Val Cys Val Ile
1 5 10 15
Gly Gly Tyr Arg Met Arg Val Ser Cys Cys Ser Trp Leu Thr Leu Thr
20 25 30
Pro Ser Ile Ala Thr Thr Arg Gln Glu Asn Met Met Asn Glu Leu Arg
35 40 45
Asp Ala Ile Leu Arg Gln Asn Glu Ala Phe Leu Gln Gln Glu Ile Ser
50 55 60
Arg Ala Asp Gly Gln Cys Ala Glu Ile Gln Leu Ser Leu Gln Gln Val
65 70 75 80
Glu Ala Ser Asp Asn Gly Gln Gln Asn Gly Asp Leu Glu Gln Ser Arg
85 90 95
Asn Glu Leu Leu Gln Glu Ile Arg Gln Gln Gln Ala Ser His Asp Ala
100 105 110
Phe Arg Ile Thr Cys Glu Gly Glu Leu Ser Arg Thr Val Tyr Glu Arg
115 120 125
Thr Gly Gln Lys Ile Lys Gly Val Lys Ala Thr Asn His Ser Ser Ser
130 135 140
Leu Ala Gly Phe Ile Asn Thr Ser Gly Asp Glu Leu Thr Ile Asp Gln
145 150 155 160
Asp Ile Ser Asp Val Thr Ala Asp Asn Trp Ser Val Ala Ala Ala Gly
165 170 175
Val Ile Lys Asn Leu Asn Phe Lys Asp Leu Arg Ser Thr Ala Thr Ser
180 185 190
Arg Gln Thr Pro
195

<210> 31073
<211> 128
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (10),(21),(64)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31073
Leu Val Val Cys Val Pro Leu Thr Ala Xaa Thr His His Leu Phe Gly
1 5 10 15
Ala Glu Glu Phe Xaa Val Leu Ser Ser His Ile Pro Ala Gly His Pro
20 25 30
Lys Pro Tyr Leu Thr Asn Ile Ala Arg Gly Lys Val Ile Asp Gln Glu
35 40 45
Ala Leu Ile Ala Ser Leu Arg Ser Gly Glu Leu Ser Gly Ala Ala Xaa
50 55 60
Asp Val Thr Asp Pro Glu Pro Leu Pro Ala Asp His Pro Leu Trp Asp

65 70 75 80
Leu Pro Asn Val Arg Ile Ser Pro His Ile Ser Ser Leu Gly Lys Glu
85 90 95
Tyr Phe Pro Arg Ser Leu Asp Ile Ala Arg Glu Asn Met Trp Arg Leu
100 105 110
Glu Arg Gly Glu Pro Leu Val Asn Glu Tyr Lys Arg Thr Arg Gly Tyr
115 120 125

<210> 31074
<211> 113
<212> PRT
<213> A.fumigatus

<400> 31074
Gly Gln Leu Asn Leu Arg Ala Leu Ala Ile Cys Ser Gly Asp Phe Leu
1 5 10 15
Leu Lys Glu Ser Phe Ile Leu Pro Gln Tyr Cys Ile Ser Gln Phe Ile
20 25 30
His His Ile Leu Leu Thr Ser Arg Cys Asp Thr Gly Ser Gln Cys Gln
35 40 45
Pro Ala Ala Thr Ala Asn Ser His Ser Ile Pro Ala Asn Asp Thr Tyr
50 55 60
Val Val Ala Val Asn Ser Ala Thr Phe Asn Val Pro Leu Gln Ser Leu
65 70 75 80
Ser Cys Pro Phe Lys Val Met Ile Leu Ser Phe Pro Asn Lys Pro Thr
85 90 95
Leu His Leu Ser Ile Gln Asn Val Phe Ser Ser Val Asp Leu Leu Ile
100 105 110
Gln

<210> 31075
<211> 66
<212> PRT
<213> A.fumigatus

<400> 31075
Cys Pro Arg His Ser Ala Ala Val Phe Met His Ser Pro Gln Thr Leu
1 5 10 15
Glu Val Pro Thr Arg Arg Leu Pro Leu Pro Gln Thr Thr Gly Ile Thr
20 25 30
Leu Asp Asp Val Ala Phe Ser Asn Val Gln Arg His Val Phe Asp Thr
35 40 45
Asn Gly Lys Glu Tyr Val Glu Gly Ala Pro Arg Leu Trp Thr His Lys
50 55 60
Leu Glu
65

<210> 31076
<211> 183
<212> PRT
<213> A.fumigatus

<400> 31076
Thr Val Gln Phe Leu Arg Arg Arg Val Pro Leu Gln Met Pro Trp Gly
1 5 10 15

```
Cys Ser Leu Ala Ile Pro Pro Val Leu Ala Arg Leu Glu Arg Gln Asn
            20                  25                  30
Ser Met Ser Asp Met Ala Ser Asp Gln Leu Leu Tyr Leu Ala Ser Gln
        35                  40                  45
Arg Ile Ile Ile Gln Asp Asn Gly Lys Lys Pro Asp Lys Phe Met Val
    50                  55                  60
Met Gln Trp Ile Leu Thr Leu Glu Gly Leu Glu Asn Ala Pro Gly Thr
65                  70                  75                  80
Gly Leu Glu Asp His Ser Ile Ser Ile Glu Ser Phe Ala Ile Arg Ile
                85                  90                  95
Pro Tyr Asp Ala Leu Phe Tyr Lys Val Gln Asn Ala Phe Thr Pro Trp
            100                 105                 110
Ser Tyr Pro Ser Val Val Leu Leu Asp Tyr Val Gly Asp Leu Gln Gln
        115                 120                 125
Leu Tyr Asp Asp Gln Pro Val Arg Lys Glu Leu Ile Thr Phe Gly Met
    130                 135                 140
Ala Met Asn Leu Ala Ile Ala Ser Lys Asn Cys Tyr Ala Gly Gly Gly
145                 150                 155                 160
Leu Ile Ile Arg Arg Leu Tyr Leu His His Ala Thr Lys Arg His Leu
                165                 170                 175
Ala Leu Leu Leu Leu Tyr Trp
            180
```

<210> 31077
<211> 324
<212> PRT
<213> A.fumigatus

<400> 31077

```
Gly Tyr Asp Pro His Pro Lys Gly Pro Pro Gly Asp Ala Asn Pro Gly
1               5                   10                  15
Lys Arg Lys Pro Ser Ala Lys Pro Lys Lys Gly Phe Gly His Arg Arg
            20                  25                  30
Lys Lys Pro Tyr Ser Ile Ser Gly Pro Ser Gln Thr Pro Cys Lys Gly
        35                  40                  45
His Ser Ser Asn Thr Arg Pro Pro Ile Ala Ser Asp Ala Ile Ser Lys
    50                  55                  60
Lys Thr Ser Ser Pro Ser Phe Ser Gly Asp Leu Glu Asp Val Leu Leu
65                  70                  75                  80
Ser Leu Ala Arg Gly Pro Leu Glu Gln Asp Val Ala Thr Leu Arg Gly
                85                  90                  95
Ala Met Ser Gly Leu Gly Thr Asn Glu Asn Leu Leu Thr Asp Val Leu
            100                 105                 110
Val Gly Arg Ser Asn Ala Asp Leu Arg Ala Ile Lys Tyr Ala Tyr Val
        115                 120                 125
Ser Lys Tyr Gln Lys Ser Leu Val Glu Asp Ile Lys Ser Asp Leu Ser
    130                 135                 140
Gly Lys Thr Glu Gln Phe Phe Val Met Leu Leu Asn Ala Thr Arg Pro
145                 150                 155                 160
Glu Pro Gly Thr Tyr Phe Asp Ala Gln Ser Val Asp Ala Asp Val Arg
                165                 170                 175
Glu Ile His Gln Ala Thr Gln Ala Arg Lys Gly Thr Asp Glu Ile Gly
            180                 185                 190
Val Phe Ala Val Leu Leu Gly Ala Ser Asp Ala Lys Leu Val Ala Ile
        195                 200                 205
Ala Gln Ala Phe Glu Ala Lys Tyr His Ile Ser Leu Glu Lys Val Ile
```

```
    210                 215                 220
Lys Asp Glu Phe Ser Gly His Leu Glu Asp Ala Leu Leu Ser Met Leu
225                 230                 235                 240
Ser Lys Ala Lys Asp Pro Val Gly His Asp Val Glu Lys Leu Leu Lys
                245                 250                 255
Cys Leu Pro Pro Val Glu Asn Gly Lys Ala Asp Val Lys Arg Leu Ile
            260                 265                 270
Tyr Trp Val Val His Leu His Trp Asn Pro Pro His Phe Ala Ala Val
        275                 280                 285
Lys Ala Arg Leu Lys Gln Lys Leu Gly His Asp Val Gly Asn His Phe
    290                 295                 300
Arg Glu Ala Ile Ala Pro Gly Asp Phe Leu Thr Ala Met Arg Gln Val
305                 310                 315                 320
Trp Asn Ser Ala
```

<210> 31078
<211> 76
<212> PRT
<213> A.fumigatus

<400> 31078

```
Asp Lys Val Gly Pro Arg Leu His Gly Thr Thr Gly Ile Ala Ser Leu
1               5                   10                  15
Cys Leu Asp Ser Asn Asn Thr Asp Leu Arg Ser Thr Pro Ile Val Phe
            20                  25                  30
Met Lys His Ser Ile Met Met Leu Pro Thr Ser Ile Ser Leu Ile Lys
        35                  40                  45
Val Phe Leu Ser Pro Gln Ile Ala Cys Thr Leu Val Pro Ala Thr Gln
    50                  55                  60
Ile Ile Phe Thr Tyr Leu Leu Lys Trp Leu Cys Gly
65                  70                  75
```

<210> 31079
<211> 82
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (56)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31079

```
Val Lys Ile Leu Thr Glu Gly Leu Ala Ile Gly Tyr Thr Gly Met Gly
1               5                   10                  15
Val Arg Cys His Asp Ala Pro Ser Gln Thr Ser Ile Ala Asn Asp Glu
            20                  25                  30
Thr Ala Asn Ser Pro Tyr Val Arg Ser Asn Gly Glu Trp Ile Gly Arg
        35                  40                  45
Ser Ile Leu Ser Gly Phe Phe Xaa Ala Pro Ile Glu Ala Leu Pro Glu
    50                  55                  60
Val Thr Val Thr Asp Val Val Ser Ala Cys Gly Ser Asn Val His Ala
65                  70                  75                  80
Thr Tyr
```

<210> 31080
<211> 164
<212> PRT
<213> A.fumigatus

<400> 31080
Tyr Phe Thr His Glu Arg Gly Thr Tyr Met Gly Leu Tyr Ala Phe Phe
1 5 10 15
Leu Ala Gly Ser Asn Tyr Phe Ala Pro Val Ile Cys Gly Phe Ile Ala
20 25 30
Gln Tyr Gln Gly Trp Gln Trp Val Phe Tyr Trp Pro Ala Val Phe Cys
35 40 45
Ala Val Thr Ile Ala Phe Leu Phe Phe Phe Met Glu Glu Thr Asn Tyr
50 55 60
Ala Arg Lys Cys Ala Glu Thr Thr Thr Val Glu Gly Ile Leu Glu Ser
65 70 75 80
Ser Thr Thr Pro Ser Lys Gln Gly Asp Gln Glu Lys Pro Leu Pro Ala
85 90 95
Thr Gly Gln Pro Asp Gln Thr Glu Cys Gly Val Met Tyr Ser Lys Lys
100 105 110
Thr Tyr Ile Gln Lys Leu Ser Ile Ile Gly Pro Arg Gln Pro Arg Asn
115 120 125
Asn Met Phe Arg Arg Phe Tyr Gln Thr Leu Tyr Tyr Leu Ser Trp Pro
130 135 140
Val Ile Phe Tyr Ala Gly Tyr Val Lys Arg Ser Leu Ile Phe Ile Gly
145 150 155 160
Asn Ile Arg Tyr

<210> 31081
<211> 123
<212> PRT
<213> A.fumigatus

<400> 31081
Arg Ala Ile His Ile Gln Thr Leu Leu Thr Arg Ser Arg Ser Leu Phe
1 5 10 15
Thr Gly Arg Phe Ser Asp Trp Leu Thr Ile Lys Leu Ala Arg Arg Asn
20 25 30
Gly Gly Val Met Glu Ala Glu Gln Arg Leu Trp Pro Phe Leu Ala Cys
35 40 45
Val Ile Ile Val Pro Gly Ser Leu Leu Leu Trp Gly Val Gly Ala Ala
50 55 60
His Glu Val His Trp Phe Gly Leu Leu Val Ala Met Cys Leu Leu Ala
65 70 75 80
Leu Ala Ser Thr Cys Gly Val Thr Leu Ser Val Asn Tyr Leu Val Asp
85 90 95
Ser Tyr Arg Glu Leu Ser Gly Asp Ala Met Ala Ser Val Ile Leu Val
100 105 110
Arg Asn Thr Met Ser Phe Ala Met Gly Tyr Gly
115 120

<210> 31082
<211> 85
<212> PRT

<213> A.fumigatus

<400> 31082
Lys Gln His Ile Ala Ala His Arg Gln His Leu Thr Phe Cys Ser Cys
1 5 10 15
Phe Cys Leu Val Met Ala Pro Arg Gly Asp Gly Asp Ser Ile Pro Gly
20 25 30
Thr Phe Thr Leu Val Asp Val Asp Gly Val Leu Ala Thr Arg His Leu
35 40 45
Asp Arg Gly Asp Arg Asp Ile Val Leu Val Pro Glu Pro Ser Asn Asp
50 55 60
Pro Asp Asp Pro Leu Asn Trp Ser Pro Arg Arg Lys Leu Leu Ser Thr
65 70 75 80
Ile Cys Val Ser Val
85

<210> 31083
<211> 98
<212> PRT
<213> A.fumigatus

<400> 31083
Val Asp Gly Arg Gly Cys Phe Asp Leu Glu Phe Ser Thr Lys Gln Leu
1 5 10 15
Ile Cys Ser Leu Met Ser Arg Tyr Thr Leu Phe Ala Gly Ile Ser Thr
20 25 30
Ser Val Val Tyr Ser Val Leu Val Gln Leu Ser Glu Glu Thr Gly Val
35 40 45
Ala Val Asp Thr Leu Asn Gln Gly Thr Gly Tyr Met Phe Leu Leu Ala
50 55 60
Gly Trp Gly Leu Leu Phe Trp Gln Pro Phe Ala Leu Gln Tyr Gly Lys
65 70 75 80
Arg Leu Thr Tyr Ile Leu Ser Leu Val Gly Ile Leu Val Ser Leu Gln
85 90 95
Ser Tyr

<210> 31084
<211> 409
<212> PRT
<213> A.fumigatus

<400> 31084
Phe Ile Val Ile Val Gln Ser Ile Val Asp Val Ser Ala Arg Asn Tyr
1 5 10 15
Ile Gly Gly Ala Phe Asn Arg His Val Asn Trp Leu Gly Arg Ala Phe
20 25 30
Trp Arg Ala Trp Phe Asp Ala Asp Arg Val Ser Leu Glu Ala Ala Arg
35 40 45
Arg Asp Tyr Leu Glu Tyr Arg Phe Gly Thr Val Ile Ser Ala Ser Glu
50 55 60
Arg Asn Tyr Leu Leu Gly Gly Ile Pro Tyr Tyr Ile Phe Val Gly Arg
65 70 75 80
His Lys Asn Leu Ala Ser Asn Leu Ser Gly Gln Glu Thr Ile Glu Met
85 90 95
Leu Asp Ala Ser Phe Thr Glu Ser Pro Tyr Leu Ser Pro Ala Asn His

```
            100                 105                 110
Thr Lys Glu Met Glu Lys Ala Met Glu Arg Asn Ala Gln Glu Ile Arg
        115                 120                 125
Ser Lys Ala Tyr Glu Ser Ala Val Ile Asn Leu Ser Ala Asn Leu Pro
    130                 135                 140
Leu Pro Ser Ser Phe Tyr Gln Asn His His Cys Arg Ile Phe Tyr Asn
145                 150                 155                 160
Asp Leu Leu Pro Lys His Thr Gln Phe Lys Asn Glu Tyr Ile Tyr Ala
                165                 170                 175
Phe Asn Trp Glu Asp Pro Arg Val Asp His Arg Leu Leu Asp Ile Lys
            180                 185                 190
Arg Asp Asp Val Ile Leu Ala Ile Thr Ser Ala Gly Asp Asn Ile Leu
        195                 200                 205
Asp Tyr Leu Gln Lys Ser Pro Arg Arg Val His Ala Val Asp Leu Asn
    210                 215                 220
Pro Asn Gln Asn His Leu Leu Glu Leu Lys Val Ala Ser Phe Met Ala
225                 230                 235                 240
Leu Gly His Arg Asp Val Trp Lys Ile Phe Gly Glu Gly Lys His Pro
                245                 250                 255
Glu Phe Arg Glu Leu Leu Ile Ser Arg Leu Ser Ala His Leu Ser Ser
            260                 265                 270
Gln Ala Phe Gln Tyr Trp Leu Glu His Thr His Ile Phe Thr Ser Lys
        275                 280                 285
Tyr Gly Lys Gly Leu Tyr Glu Thr Gly Gly Ser Arg His Ala Ile Lys
    290                 295                 300
Met Val Arg Tyr Leu Phe Lys Val Phe Gly Leu Glu Gly Gln Val Lys
305                 310                 315                 320
Lys Leu Cys Glu Ala Gln Thr Leu Ala Glu Gln Arg Glu Ile Trp Pro
                325                 330                 335
Lys Ile Arg Ala Val Leu Met Ser Lys Pro Leu His Trp Ala Val Val
            340                 345                 350
Ser Thr Glu Trp Phe Ala Trp Lys Ala Ala Gly Val Pro Arg Asn Gln
        355                 360                 365
Arg Asn Met Ile Val Asp Asp Tyr Phe Lys Arg Leu Gly Leu Thr Lys
    370                 375                 380
Asp Met Asn Gln Gly Gln Asp Ile Ser Gly Arg Ser Ile Trp Gln Tyr
385                 390                 395                 400
Val Val Asp Thr Leu Glu Pro Arg Arg
                405
```

<210> 31085
<211> 139
<212> PRT
<213> A.fumigatus

```
<400> 31085
Ser Glu Asn Val Ser Val Leu Lys Pro Val Leu Glu Cys Leu Ala Gly
1               5                   10                  15
Glu Val Ser Ala Glu Thr Arg Asn Glu Glu Phe Pro Glu Phe Trp Val
            20                  25                  30
Phe Ser Leu Ala Lys Asp Leu Pro Asp Ile Ala Met Thr Lys Gly His
        35                  40                  45
Glu Thr Ser Asn Leu Glu Phe Lys Gln Met Ile Leu Val Arg Ile Gln
    50                  55                  60
Val Asp Cys Met Asn Ser Ala Trp Thr Leu Leu Lys Val Ile Gln Asn
65                  70                  75                  80
```

```
Ile Val Ser Gly Ala Gly Asn Gly Gln Asp Asn Ile Ile Pro Leu Asp
                85                  90                  95
Val Glu Lys Thr Met Ile His Thr Arg Ile Phe Pro Val Glu Gly Ile
            100                 105                 110
Asn Val Phe Ile Leu Glu Leu Arg Val Leu Gly Gln Gln Ile Ile Val
        115                 120                 125
Glu Asp Ala Ala Val Val Ile Leu Val Glu Gly
    130                 135
```

<210> 31086
<211> 94
<212> PRT
<213> A.fumigatus

<400> 31086

```
Pro Gln Glu Thr Leu Gly Lys Lys Ile Glu Ser Val Ile Ile Ser His
1               5                   10                  15
Ile Ile Asp Glu Ala Ser Leu Gly Leu Pro Asp Pro Ile Pro Glu Gly
            20                  25                  30
Gln Val Glu Ala Phe Ile Ser Asn Asn Leu Pro Pro Asn Ala Thr Glu
        35                  40                  45
Gln Thr Lys Arg Ile Ala Asn Leu Phe Lys Ser Leu Tyr Ala Asn Ser
    50                  55                  60
Thr Lys Lys Glu Met Leu Ser Ala Leu Tyr Asn Asp Ile Leu Tyr Thr
65                  70                  75                  80
Cys Asn Leu His Ala Val Leu Lys Ala Tyr Leu Ser Pro Ala
                85                  90
```

<210> 31087
<211> 73
<212> PRT
<213> A.fumigatus

<400> 31087

```
Leu Thr Asn Ser Ile Leu Lys Thr Pro Tyr Asn Leu Lys Gln Leu Lys
1               5                   10                  15
Lys Gln Glu Thr Ile Leu Lys Lys Leu Leu Arg Glu Tyr Ile Tyr Ser
            20                  25                  30
Pro Pro Thr Pro Thr Lys Ala Val Leu Gly Gln Ile Ile Lys Arg Cys
        35                  40                  45
Glu Ile Val Ile Asn Asn Thr Ala Leu Leu Ala Lys Glu Asn Tyr Asn
    50                  55                  60
Leu Tyr Thr Ile His Lys Lys His Leu
65                  70
```

<210> 31088
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31088

```
Asn Leu Ala Ala Ala Glu Ile Arg Gly Tyr Phe Lys Pro Leu Lys His
1               5                   10                  15
Asp Phe Ile Thr Lys Ser Ser Tyr Ser Cys Ala Ala Asp Ile Val Ile
            20                  25                  30
Thr Tyr Gly Leu Glu Tyr Gly Ser His Cys Ser Val Gly Val Pro Val
```

```
        35                  40                  45
Lys Gly Ile Val Leu Tyr Leu Leu Pro Thr Leu Glu Gly
    50                  55                  60
```

<210> 31089
<211> 320
<212> PRT
<213> A.fumigatus

<400> 31089

```
Pro Val Tyr Gly Asn Lys Gln Gly Lys Leu Thr Ile Lys Thr Thr Asp
1               5                   10                  15
Met Glu Thr Ile Tyr Asp Met Gly Thr Lys Met Ile Asp Ser Met Thr
            20                  25                  30
Lys Glu Arg Val Met Ala Gly Asp Val Ile Ser Ile Asp Lys Ser Ser
        35                  40                  45
Gly Lys Ile Thr Lys Leu Gly Arg Ser Tyr Ala Arg Ser Arg Asp Tyr
    50                  55                  60
Asp Ala Met Gly Ala Asp Thr Lys Phe Val Gln Cys Pro Glu Gly Glu
65                  70                  75                  80
Leu Gln Val Arg Lys Glu Ile Val His Thr Val Ser Leu His Glu Ile
                85                  90                  95
Asp Val Ile Asn Ser Arg Thr Gln Gly Phe Leu Ala Leu Phe Ser Gly
            100                 105                 110
Asp Thr Gly Glu Ile Arg Ser Glu Val Arg Asp Gln Ile Asn Thr Lys
        115                 120                 125
Val Ala Glu Trp Lys Glu Glu Gly Lys Ala Glu Ile Ile Pro Gly Val
    130                 135                 140
Leu Phe Ile Asp Glu Val His Met Leu Asp Ile Glu Cys Phe Ser Tyr
145                 150                 155                 160
Ile Asn Arg Ala Leu Glu Ala Glu Leu Ala Pro Ile Val Ile Met Ala
                165                 170                 175
Ser Asn Arg Gly Gln Ala Arg Ile Arg Gly Thr Thr Tyr Thr Ser Pro
            180                 185                 190
His Gly Leu Pro Leu Asp Phe Leu Asp Arg Val Val Ile Val Ser Thr
        195                 200                 205
Gln Pro Tyr Ser Gly Asp Glu Ile Arg Gln Ile Leu Ala Ile Arg Ala
    210                 215                 220
Gln Glu Glu Glu Ile Asp Leu Ser Pro Asp Ala Leu Ala Leu Leu Thr
225                 230                 235                 240
Lys Ile Gly Gln Glu Ser Asn Leu Arg Tyr Ala Ser Asn Ile Ile Thr
                245                 250                 255
Thr Ser His Leu Leu Ser Gln Lys Arg Lys Ala Lys Glu Val Ser Ile
            260                 265                 270
Asp Asp Val Gln Arg Ser Tyr Arg Leu Phe Tyr Asp Pro Ala Arg Ser
        275                 280                 285
Val Lys Phe Val Asn Ala Tyr Glu Gln Arg Phe Ile Gly Asp Gln Gly
    290                 295                 300
Ala Val Asn Phe Ser Ala Pro Ala Asn Gly Asp Ala Met Glu Ile Ser
305                 310                 315                 320
```

<210> 31090
<211> 158
<212> PRT
<213> A.fumigatus

<400> 31090
Phe Ile Ser Gln Pro Ile Ser Thr Val Ala Glu Thr Lys Glu Leu Arg
1 5 10 15
Gly Leu Asn Leu Ile Ala Ala His Ser His Ile Arg Gly Leu Gly Val
20 25 30
Asp Ala Asp Ser Leu Gln Pro Arg Thr Ser Ser Gln Gly Leu Val Gly
35 40 45
Gln Glu Lys Ala Arg Lys Ala Ala Ala Val Ile Leu Gln Met Val Lys
50 55 60
Glu Gly Lys Ile Ala Gly Arg Ala Val Leu Ile Ala Gly Pro Pro Ser
65 70 75 80
Thr Gly Lys Thr Ala Ile Ala Met Gly Met Ala Gln Ser Leu Gly Ser
85 90 95
Asp Val Pro Phe Thr Met Leu Ala Ala Ser Glu Ile Phe Ser Met Glu
100 105 110
Met Ser Lys Thr Glu Ala Leu Thr Gln Ala Phe Arg Lys Ser Ile Gly
115 120 125
Val Arg Ile Lys Glu Glu Ser Glu Ile Ile Glu Gly Glu Val Val Glu
130 135 140
Ile Gln Val Asp Arg Ser Val Thr Gly Val Ser Ala Asp Ser
145 150 155

<210> 31091
<211> 192
<212> PRT
<213> A.fumigatus

<400> 31091
Thr His Arg Gly Ser Phe Gln Pro Arg Gly Glu Asp Ala Asp Ala Leu
1 5 10 15
Lys Thr Leu Ile Thr His Leu Gln Arg Gly Glu Thr Ala Leu Glu Ala
20 25 30
Leu Ala Arg Ile Gly Lys Gly Ala Pro Lys Lys Pro Lys Trp Gln Ala
35 40 45
Lys Lys Lys Lys Asn Arg Ser Lys Gln Asn Gly Ala Gln Val Glu Asp
50 55 60
Ala Glu Met Thr Glu Asp Asp Pro Asn Glu Ala Ser Arg Lys Gln Ala
65 70 75 80
Ile Glu Thr Ile Thr Gly Ala Ala Asp Ile Leu Met Thr Arg Gly Gln
85 90 95
Thr Asp Ile Tyr Asp Ile Glu Arg Glu Met Leu Thr Arg Gln Tyr Arg
100 105 110
Gln Glu Thr Gly Glu Asp Trp Val Asp Pro Pro Leu Glu Ser Ala Ala
115 120 125
Pro Thr Ser Ala Glu Glu Glu Pro Ala Met Trp Gln Phe Arg Trp Ser
130 135 140
Asp Ala Arg Asp Gly Gly Val Glu His Gly Pro Tyr Asp Ser Gln Thr
145 150 155 160
Met Glu Ser Trp Lys Ser Ala Gly Tyr Phe Gly Asp Gly Val Glu Phe
165 170 175
Arg Lys Val Gly Asp Thr Gly Asp Trp Thr Ser Glu Ala Thr Phe Leu
180 185 190

<210> 31092
<211> 138
<212> PRT

<213> A.fumigatus

<400> 31092
Ala Ala Gly Pro Val Val Thr Leu Ile Thr Ser Trp Ser Trp Lys Val
1 5 10 15
Thr Lys Pro Ser Ile Gly Ala Phe Ile Asn Ile Leu Ile Ile Thr Leu
20 25 30
Ser Val Ala Met Ala Val Ser Gly Glu Ile Arg Phe Ser Trp Leu Gly
35 40 45
Phe Gly Phe Gln Phe Ala Ser Leu Val Phe Asp Ala Asn Arg Leu Val
50 55 60
Met Val Gln Ile Leu Leu Ser Asp Ser Gly Gln Lys Met Asp Pro Leu
65 70 75 80
Val Ser Leu Tyr Tyr Phe Ala Pro Ala Cys Ala Val Met Thr Ser Leu
85 90 95
Val Ala Trp Gln Thr Glu Tyr Ala Ser Phe Glu Trp Ser Ser Val Ala
100 105 110
Gln Ala Gly Trp Thr Val Leu Ser Leu Ser Ala Val Met Gly Phe Met
115 120 125
Leu Asn Val Ser Ile Phe Leu Leu Val Ser
130 135

<210> 31093
<211> 95
<212> PRT
<213> A.fumigatus

<400> 31093
Ser Asp Glu Lys Gln Met Leu Ser Leu Leu Thr Met Lys Ile Gly Lys
1 5 10 15
Thr Ser Gly Leu Ala Met Thr Leu Ile Ser Ile Pro Lys Asn Ile Leu
20 25 30
Leu Ile Ala Ile Ser Val Val Leu Trp His Thr Pro Ile Ser Leu Leu
35 40 45
Gln Ile Leu Gly Tyr Ser Ile Ala Leu Trp Ser Leu Leu Phe Tyr Ser
50 55 60
Ile Gly Trp Lys Thr Val Lys Ala Tyr Ile Asp Ala Leu Gly Val Trp
65 70 75 80
Ser Arg Lys Ser Asp Glu Asn Glu Val Leu Leu Ser Asp Arg Val
85 90 95

<210> 31094
<211> 629
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (86),(138),(145)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31094
Gly Leu Phe Pro Pro Ile Arg Val Ser Phe Pro Ala Trp Phe Ala Glu
1 5 10 15
Ala Ala Phe Asn Ser Trp Glu Ala Arg Gln Phe Trp Leu Gly Val Leu
20 25 30

```
Thr Cys Pro Gly Asn Pro Leu Phe Phe Lys Arg Pro Arg Asn Asn His
        35                  40                  45
Gly Arg Arg Val Val Gly Leu Ser Leu Pro Leu Arg Ser Leu Pro Asp
    50                  55                  60
Val Gly Lys Ser Cys Arg Pro Pro Tyr Asp Thr Phe Val Glu Val Phe
65                  70                  75                  80
Ile Ile Thr Ser Gln Xaa Glu Ile Gln Tyr Tyr Phe Ser Leu Met Asn
                85                  90                  95
Gln His Leu Pro Ile Glu Ser Gln Leu Met Ser Lys Leu Ala Asp Asn
            100                 105                 110
Met Asn Ala Glu Ile Val Leu Gly Asn Ile Arg Asn Arg Asp Glu Gly
        115                 120                 125
Val Glu Trp Leu Gly Tyr Thr Tyr Leu Xaa Val Arg Met Leu Arg Ser
    130                 135                 140
Xaa Gly Leu Tyr Ser Val Gly Ala Asp Tyr Glu Asn Asp Asp Ala Leu
145                 150                 155                 160
Glu Gln Lys Arg Val Asp Leu Val His Ser Ala Ala Val Ile Leu Glu
                165                 170                 175
Arg Ala Gly Leu Val Lys Tyr Glu Lys Lys Thr Gly Arg Leu Gln Ser
            180                 185                 190
Thr Glu Leu Gly Arg Ile Ala Ser His Tyr Tyr Ile Gly His Asn Ser
        195                 200                 205
Met Leu Thr Tyr Ser Gln His Ile Gln Pro Ser Ile Ser Thr Ile Glu
    210                 215                 220
Leu Phe Arg Ile Phe Ala Leu Ser Asp Glu Phe Lys Tyr Ile Pro Val
225                 230                 235                 240
Arg Gln Asp Glu Lys Leu Glu Leu Ala Lys Leu Leu Gly Arg Val Pro
                245                 250                 255
Val Pro Val Lys Glu Ser Ile Asp Glu Pro His Ser Lys Ile Asn Val
            260                 265                 270
Leu Leu Gln Ala Tyr Ile Ser Arg Leu Lys Leu Glu Gly Leu Ala Leu
        275                 280                 285
Met Ala Asp Met Val Tyr Val Thr Gln Ser Ala Gly Arg Ile Leu Arg
    290                 295                 300
Ala Leu Phe Glu Ile Ser Leu Lys Lys Gly Trp Ser Ser Val Ala Lys
305                 310                 315                 320
Thr Ala Leu Asp Leu Cys Lys Met Ala Glu Arg Arg Met Trp Pro Thr
                325                 330                 335
Met Thr Pro Leu Arg Gln Phe Pro His Cys Pro Arg Asp Ile Leu Gln
            340                 345                 350
Lys Ala Glu Arg Ile Asp Val Pro Trp Ala Ser Tyr Phe Asp Leu Asp
        355                 360                 365
Pro Pro Arg Met Gly Glu Leu Leu Gly Met Pro Lys Ala Gly Arg Thr
    370                 375                 380
Val Cys Asp Leu Val Ser Lys Phe Pro Arg Leu Glu Val Gln Ala Gln
385                 390                 395                 400
Val Gln Pro Val Thr Arg Ser Leu Leu Arg Val Glu Leu Thr Ile Thr
                405                 410                 415
Pro Asn Phe Val Trp Asp Asp Ala Leu His Gly Thr Ala Gln Asp Phe
            420                 425                 430
Trp Ile Leu Val Glu Asp Cys Asp Gly Glu Glu Ile Leu Phe His Asp
        435                 440                 445
Gln Phe Ile Leu Arg Lys Asp Tyr Ala Gln Ala Glu Met Asn Glu His
    450                 455                 460
Leu Val Glu Phe Thr Val Pro Ile Thr Glu Pro Met Pro Pro Asn Tyr
465                 470                 475                 480
```

```
Phe Ile Ser Leu Val Ser Asp Arg Trp Met His Ser Glu Thr Lys Ile
                485                 490                 495
Ala Val Ser Phe Gln Lys Leu Ile Leu Pro Glu Arg Phe Pro Pro His
            500                 505                 510
Thr Pro Leu Leu Asp Met Gln Arg Ala Pro Val Lys Ala Leu Lys Arg
        515                 520                 525
Glu Asp Tyr Gln Gln Leu Tyr Pro Glu Trp Gln Leu Phe Asn Lys Ile
    530                 535                 540
Gln Ser Gln Thr Phe Lys Ser Leu Tyr Asp Thr Asp Asp Asn Val Phe
545                 550                 555                 560
Leu Gly Ala Pro Thr Gly Ser Gly Lys Thr Val Cys Ala Glu Leu Ala
                565                 570                 575
Leu Leu Arg His Trp Ala Thr Gly Lys Gly Gly Arg Thr Val Tyr Ile
            580                 585                 590
Ala Pro Phe Gln Gln Leu Ile Asp His Arg His Ala Asp Trp Glu Lys
        595                 600                 605
Arg Leu Gly Asn Leu Gly Gly Gly Lys Asn Ile Val Gln Leu Thr Gly
    610                 615                 620
Glu Thr Leu Pro Ile
625
```

<210> 31095
<211> 99
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (6)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31095

```
Arg Pro Arg Ser Gly Xaa Glu Lys Val Arg Leu Leu Glu Tyr Leu Arg
1               5                   10                  15
Ser Tyr Ile Ala Ser Arg Leu Glu Arg Gly Glu Tyr Asp Ser Asp Ser
            20                  25                  30
Asp Ser Asp Asp His Ala Ser Ala Ala Ala Ser Pro Val Ile Lys His
        35                  40                  45
Asp Gly His Met Asp Gly Val Glu Ser Ser His Lys Pro Ile Thr Ala
    50                  55                  60
Glu Glu Thr Ser Ala Pro Pro Ala Ala Lys Ala Glu Ser Asn His Gly
65                  70                  75                  80
Val Met Tyr Pro Thr Leu His Gly Leu Asp Gly Asp Glu Asp Thr Lys
                85                  90                  95
Met His His
```

<210> 31096
<211> 140
<212> PRT
<213> A.fumigatus

<400> 31096

```
Ser Gly Glu Asn Asp Asp Pro Leu Gly Arg Arg Trp Thr Leu Gln Arg
1               5                   10                  15
Leu Asn Arg Ser Arg Pro Arg Arg Gln Ala Pro Ser Ser Thr Ser Gly
```

```
            20                  25                  30
Thr Thr Ser Gly Pro Ala Ala Thr Ala Arg Thr Ser Ile Ser Arg Asn
        35                  40                  45
Thr Pro Arg Pro Pro Gly Ala Thr Ser Pro Arg Thr Ala Gly Thr His
    50                  55                  60
Ala Gln Thr Arg Cys Pro Asp Arg Thr Ser Ala Cys Ser Ser Arg Ala
65                  70                  75                  80
Ala Ser Ala Pro Lys Ala Thr Ser Ala Asn Thr Ser Thr Ala Cys Arg
                85                  90                  95
Arg Cys Met Thr Ser Ser Thr Pro Thr Trp Thr Val Ser Val Gly Thr
            100                 105                 110
Ser Ser Ala Ile Thr Gly Thr Thr Trp Ala Val Trp Ala Arg Ser Arg
        115                 120                 125
Ala Arg Thr Ala Arg Cys Met Leu Ala Gly Ser Met
    130                 135                 140

<210> 31097
<211> 355
<212> PRT
<213> A.fumigatus

<400> 31097
Phe His Leu Lys Ala Ser Gln Pro Leu Leu Cys Ser Thr Ser Thr His
1               5                   10                  15
Lys Gln His Pro Gln His Phe Lys Leu Ala Ile Met Ala Glu Thr Ala
            20                  25                  30
Val Ile Asp Pro Pro His Ala Thr Glu Pro Thr Ser Leu Pro Thr Glu
        35                  40                  45
Ser Ala Asp Pro Ser Gly Pro Ala Pro Ser Asp Glu Asn Ala Leu Thr
    50                  55                  60
Gln Pro Ser Glu Ser Ala Val Thr Ala Thr Thr Asp Ala Asp Gly Thr
65                  70                  75                  80
Gln Lys Lys Thr Lys Lys Ile Ile Arg Arg Lys Arg Arg Pro Ala Arg
                85                  90                  95
Pro Gln Val Asp Pro Ala Thr Leu Lys Ser Glu Pro Pro Pro Gln Thr
            100                 105                 110
Gly Thr Val Phe Asn Ile Trp Tyr Asn Lys Trp Ser Gly Gly Asp Arg
        115                 120                 125
Glu Asp Lys Tyr Leu Ser Lys His Ala Ala Pro Ser Arg Cys Asn Ile
    130                 135                 140
Ala Lys Asp Ser Gly Tyr Thr Arg Ala Asp Lys Val Pro Gly Ser Tyr
145                 150                 155                 160
Phe Cys Leu Phe Phe Ala Arg Gly Val Cys Pro Lys Gly His Glu Cys
                165                 170                 175
Glu Tyr Leu His Arg Leu Pro Thr Leu His Asp Leu Phe Asn Pro Asn
            180                 185                 190
Val Asp Cys Phe Gly Arg Asp Lys Phe Ser Asp Tyr Arg Asp Asp Met
        195                 200                 205
Gly Gly Val Gly Ser Phe Thr Arg Gln Asn Arg Thr Leu Tyr Val Gly
    210                 215                 220
Arg Ile His Val Thr Asp Asp Ile Glu Glu Val Val Ser Arg His Phe
225                 230                 235                 240
Ala Glu Trp Gly Gln Ile Asp Arg Ile Arg Val Leu Thr Ser Arg Gly
                245                 250                 255
Val Ala Phe Val Thr Tyr Thr Asn Glu Ala Asn Ala Gln Phe Ala Lys
            260                 265                 270
```

```
Glu Ala Met Ala His Gln Ser Leu Asp His Asn Glu Ile Leu Asn Val
        275                 280                 285
Arg Trp Ala Thr Val Asp Pro Asn Pro Leu Ala Gln Lys Arg Glu Ala
    290                 295                 300
Arg Arg Leu Glu Glu Gln Ala Ala Glu Ala Val Arg Arg Ala Leu Pro
305                 310                 315                 320
Ala Glu Phe Val Ala Glu Leu Glu Gly Arg Asp Pro Glu Ala Arg Lys
                325                 330                 335
Lys Lys Lys Ile Glu Gly Ser Phe Gly Leu Ser Ser Pro Gly Val Glu
            340                 345                 350
Ile Arg Leu
        355
```

<210> 31098
<211> 167
<212> PRT
<213> A.fumigatus

<400> 31098

```
Pro Ala Cys Arg Lys Leu Ala Arg Leu Arg Ala Gln Leu Leu Glu Pro
1               5                   10                  15
Thr Gly Gly Gly Gly Gly Gly Gly Thr Gly Phe Asp Val Ser Lys Ser
            20                  25                  30
Gly Asp Ala Arg Val Ala Leu Val Gly Phe Pro Ser Val Gly Lys Ser
        35                  40                  45
Thr Phe Leu Ser Lys Ile Thr Lys Thr Arg Ser Glu Ala Ala Ala Tyr
    50                  55                  60
Ser Phe Thr Thr Leu Thr Ala Ile Pro Gly Val Leu Glu Tyr Gly Gly
65                  70                  75                  80
Ala Glu Ile Gln Ile Leu Asp Leu Pro Gly Ile Ile Glu Gly Ala Ala
                85                  90                  95
Glu Gly Lys Gly Arg Gly Arg Gln Val Ile Ser Ala Ala Lys Val Cys
            100                 105                 110
Thr Lys Leu Leu Pro Glu Thr Thr Leu Gln Glu Cys Ser Ser Asp His
        115                 120                 125
Val Gln Thr Ser Asp Leu Ile Leu Met Val Leu Asp Ala Thr Lys Arg
    130                 135                 140
Ala Glu Gln Arg Ala Leu Leu Glu Ala Glu Leu Asp Ala Val Gly Ile
145                 150                 155                 160
Arg Leu Asn Lys Glu Pro Pro
                165
```

<210> 31099
<211> 94
<212> PRT
<213> A.fumigatus

<400> 31099

```
Thr Pro Leu Gly Ser Val Ser Thr Arg Ser Leu Arg Lys Gly Pro Ser
1               5                   10                  15
Asn His Leu Pro Gln His Phe Met His Thr Asp Leu Asp Ser Asn Ile
            20                  25                  30
Tyr Leu Lys Val Lys Lys Ala Gly Gly Met Lys Ile Thr Phe Gln Thr
        35                  40                  45
Pro Pro Lys Asn Leu Asp Glu Lys Met Ile Phe Asn Val Leu Arg Asp
    50                  55                  60
```

```
Tyr Lys Ile Leu Asn Cys Glu Val Leu Val Arg Asp Glu Asn Gly Thr
65                  70                  75                  80
Leu Thr Pro Pro Ala Leu Cys Val Phe Val Gln Thr Ala Tyr
                85                  90
```

<210> 31100
<211> 715
<212> PRT
<213> A.fumigatus

<400> 31100

```
Trp Thr Leu Ser Ala Leu Cys Leu Leu Val Arg Pro Leu His Leu Gly
1               5                  10                  15
Gln Val Leu Val Tyr Tyr Leu Arg Lys Ile Glu Gln Lys Asp Ser Pro
            20                  25                  30
Ile Val Leu Gln Thr Pro Val Asp Ser Pro Phe Ala Ala Asp Ser Ser
        35                  40                  45
Val Arg Ala Pro Ser Thr Arg Gln Ser Lys Arg Val Asn Phe Ser Pro
    50                  55                  60
Trp Thr Lys Tyr Ile Lys Pro Pro Ser Phe Thr Asn Ser Ala Pro Arg
65                  70                  75                  80
Leu Lys Ser Glu Leu Lys Glu Leu Pro Pro Ser Asn Glu Cys Lys Pro
                85                  90                  95
Thr Lys Ser Ile Leu Lys Thr Thr Asn Ala His Pro Pro Ile Asp Thr
            100                 105                 110
Thr Asp Ala Ala Pro Cys Thr Pro Glu Ser Phe Ala Met Leu Leu Asp
        115                 120                 125
Ser Ile Thr Gln Gln Leu Ala Gly Glu Ser Ile Ser Ser Arg Leu Asp
    130                 135                 140
Ala Tyr Met Gln Phe Phe Gly Ala Leu Arg Ala Tyr Glu Gly Leu Pro
145                 150                 155                 160
Ser Glu Gln Glu Leu Gly Gln Lys Leu Gly Leu Ile Ser Gln Phe Ile
                165                 170                 175
Gln Arg Asp Leu Ser Thr Asp Leu Gly Asp Asp Val Pro Leu Gly Thr
            180                 185                 190
Asn Leu Val Ile Gln Ala Leu Lys Leu Ala Ala Ala Leu Ser Trp Asn
        195                 200                 205
Ile Glu Ile Ala Ala His Leu Pro Asp Glu Phe Lys Val Phe Leu Val
    210                 215                 220
Glu His Ser Ile Asn Ala Leu Glu Ser Ala Lys Ala Pro Lys Ser Val
225                 230                 235                 240
Leu Thr His Tyr Met Ser Ile Leu Ser Thr Gln Asn Phe His Ser Lys
                245                 250                 255
Ile Met Thr Asn Ala Arg Ile Ile Arg Leu Leu Thr Val Leu Gly Asp
            260                 265                 270
Ile Thr Ser Arg Val Asn Gly Asn Ala Ile Val Phe Gln Arg Leu Ser
        275                 280                 285
Ile Tyr Gln Arg Leu Leu Thr Gln Ser Lys Ser Ile Phe Val Ser Gln
    290                 295                 300
Ser Gly Leu Trp Val Glu His Leu Leu Ser Gly Leu Leu His His Val
305                 310                 315                 320
Lys Asp Thr Arg Ile Lys Ala Ile Ser Leu Gly Phe Gln Thr Ser Met
                325                 330                 335
Ile Cys Gly Pro Asn Pro Ser Leu Ser Lys Ser Ile Arg Asp Leu Phe
            340                 345                 350
Asp Arg Pro Leu Asp Asn Gly Arg Lys Leu Val Ser Glu Ile Cys Glu
```

```
        355                 360                 365
Arg Met Ser Arg Met Met Ala Asn Val Glu Ser Gly Val His Val Pro
    370                 375                 380
Gln Val Trp Ser Ile Ile Val Leu Leu Leu Arg Ser Lys Arg Leu Ser
385                 390                 395                 400
Ile Asp Gln Trp Glu His Phe Lys Glu Trp Val Leu Val Leu Gln Arg
                405                 410                 415
Cys Phe Asn Cys Ser Glu Ser Ser Ile Lys Ala Gln Ala Ile Leu Gly
            420                 425                 430
Trp Asn Arg Phe Val Tyr Val Val Ser Pro Ser Asp Thr Thr Ser Arg
        435                 440                 445
Ser Met Leu Arg Met Leu Ser Lys Pro Ile Met Ser Gln Phe Glu Arg
    450                 455                 460
Lys Lys Gln Glu Arg His Gly Ser Gln Pro Gly Gln Leu Ala Leu Cys
465                 470                 475                 480
Ser Tyr His Asn Leu Leu Tyr Tyr Ala Phe Arg Pro Ser Ala Thr Leu
                485                 490                 495
Gln His Leu Asp Ile Val Trp Glu Glu Tyr Val Ala Gly Pro Ser Asn
            500                 505                 510
Val Phe Ala Ser Phe Pro His Leu Asn Asp Arg Phe Cys His Ala Leu
        515                 520                 525
Ser Asn Leu Leu Trp Ser Pro Gln Ala Lys Ile Trp Thr Glu Asn Lys
    530                 535                 540
Val Asn Glu Ser Thr Lys Leu Glu Pro Glu Glu Leu Pro Ser Ile Asp
545                 550                 555                 560
Cys Lys Trp Val Arg Ser Arg Ile Thr Ile Ile Leu Asn Val Phe Glu
                565                 570                 575
Ala Ile Phe Arg Thr Ser Leu Trp Ala Asp Asp Leu Asp Lys Ser Asn
            580                 585                 590
Ile Ala Ala Ala Trp Ile Ser Leu Ser Gln Ala Leu Ser Tyr Ala Ser
        595                 600                 605
Ser Lys Glu Ile Thr Pro Ser Lys Glu Ser Met Gln Ala Val Ala Ser
    610                 615                 620
Val Leu Gly His Leu Gln Arg Leu Trp Asn Ala Gly Pro Ser Ser Leu
625                 630                 635                 640
Asn Ala Leu Gly Asp Glu Ser Met Asp Val Phe Phe Asp Arg Phe Arg
                645                 650                 655
Phe Leu Ser Thr Thr Met Ile Ser Ser Leu Gly Gly Ile Pro Phe Thr
            660                 665                 670
Glu Lys Leu Leu Leu Lys Thr Ala Asn Glu Thr Phe Gln Ala Ala Asn
        675                 680                 685
Thr Pro Thr His His Pro Val Arg Ala Asn Thr Asn Leu Asp Ser Pro
    690                 695                 700
Ile Leu His Leu Leu Arg Phe Ile Ser Asp Val
705                 710                 715
```

<210> 31101
<211> 77
<212> PRT
<213> A.fumigatus

<400> 31101

```
Ala His Phe Leu Arg Ser Val Gly Val Arg Thr Pro Val Phe Ala Arg
1               5                   10                  15
Phe Ser Thr Val Thr Leu Gly Arg Glu Phe Pro Asp Glu Ala Arg Asn
            20                  25                  30
```

```
Pro Arg Gly Phe Ala Val Lys Phe Tyr Thr Gly Glu Gly Asn Tyr Asp
        35                  40                  45
Ile Val Gly Leu Asn Phe Val Cys Leu Pro Lys Ser Ala Arg Lys Pro
    50                  55                  60
Ala Thr Asn Ile Gly Asp Thr Ala Arg Val Leu Leu Ser
65                  70                  75
```

<210> 31102
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31102
```
Thr Leu Tyr Ala Cys Pro Ser Leu Arg Ala Ser Gln Arg Leu Thr Ser
1               5                   10                  15
Ala Ile Gln Pro Val Phe Phe Cys Arg Asp Pro Ile Gln Gly Pro Asp
            20                  25                  30
Val Ile Arg Ser Gln Tyr Arg Ile Pro Gln Asn Phe Leu Leu Asp His
        35                  40                  45
Asn Ser Leu Phe Asp Leu Leu Ala Asn Thr Pro Glu Gly
    50                  55                  60
```

<210> 31103
<211> 92
<212> PRT
<213> A.fumigatus

<400> 31103
```
His Arg Arg Tyr Ser Pro Cys Ser Ser Val Val Ile Pro Phe Lys Ala
1               5                   10                  15
Pro Met Leu Phe Ala Pro Ser Ile Gly Phe Arg Arg Thr Ser Cys Trp
            20                  25                  30
Thr Thr Thr Pro Cys Ser Ile Cys Ser Gln Ile Leu Pro Arg Gly Glu
        35                  40                  45
Arg Ala Met Ala Ile Ile Glu Thr Gln Thr Leu Thr Asp Asn Arg Asn
    50                  55                  60
His Ala Gly Met Met Phe Phe Ser Asp His Gly Thr Pro Val Gly Trp
65                  70                  75                  80
Arg Asn Leu Arg Gly Tyr Gly Cys His Thr Phe Lys
                85                  90
```

<210> 31104
<211> 78
<212> PRT
<213> A.fumigatus

<400> 31104
```
Val Glu Arg Ser Tyr Ser Ala Leu Tyr Ile Leu Thr Thr Ser Pro Gly
1               5                   10                  15
Leu Thr Lys Gly Glu Asn Leu Cys Ile Ser Asn Thr Asn Phe Ile Ala
            20                  25                  30
Asp Arg Gly Gln Lys Gln Ser Thr Ala Asp Glu Ala Ile Gln Met Cys
        35                  40                  45
Gly Glu Asp Pro Asp Phe Ser Lys Arg Asp Leu Tyr Gln Ala Ile Glu
    50                  55                  60
Lys Gly Glu Lys Ile Ser Trp Thr Ala His Val Gln Ile Met
```

65 70 75

<210> 31105
<211> 108
<212> PRT
<213> A.fumigatus

<400> 31105
Asp Arg Thr Leu Thr Gly Ala Ser His Asn Glu Thr Lys Ile Leu Ser
1 5 10 15
Glu Thr Gly His Gly Gly Gln Thr Pro Asp Leu Asp Gly Asp Glu Glu
20 25 30
Asp Gly Tyr Asp Glu Val Ile Tyr Pro Val Asp Phe Arg Gln Ala Gly
35 40 45
His Ile Val Asp Asp Glu Met His Arg Ile Met Val Arg Pro Leu Arg
50 55 60
Pro Gly Val Arg Leu Thr Ala Ile Phe Asp Ser Cys His Ser Gly Ser
65 70 75 80
Ala Leu Asp Leu Pro Tyr Ile Tyr Ser Thr Gln Gly Ile Leu Lys Glu
85 90 95
Pro Asn Leu Ala Lys Glu Gly Leu His Pro Gly Arg
100 105

<210> 31106
<211> 278
<212> PRT
<213> A.fumigatus

<400> 31106
Glu Ser Leu Lys Val Phe His Trp Cys Trp Lys Val Ser Leu Thr Asp
1 5 10 15
Arg Ser Lys Asp Lys Cys Arg Thr Ile Ile Thr Asn Asn Leu Pro Thr
20 25 30
Ala Ala Val Thr Pro Ala Lys Arg Thr Val Ser Asn Ile Leu Leu Arg
35 40 45
Ile Leu Thr Gly Met Ala Ser Pro Pro Leu Ser Leu Val Thr Ala Arg
50 55 60
Leu Leu His Thr Thr Val Thr Val Tyr Val Leu Ile Ser Glu Asp Asn
65 70 75 80
Cys Glu Gln Lys Lys Met Gln Val Trp Leu Thr Leu Tyr Ala Ala Thr
85 90 95
Ala Val Arg Ile Arg Pro Ala Ala Ala Ala Tyr Trp Lys Cys Gly Val
100 105 110
Trp Trp Lys Thr Ala Trp Tyr Val Ile Ala Phe Gly Ala Gly Arg Thr
115 120 125
Ala Phe Cys Phe Gly Lys Cys Gln Tyr Ala Ala Ala Asp Ile Cys Asn
130 135 140
Thr Gly Met Asn Gln Tyr Gln Asn Thr Tyr Ser His Gly His Gln Gly
145 150 155 160
Gly Pro Pro Pro Pro Pro Thr Asp Pro Val Ala Phe Gly His Gly Ala
165 170 175
Pro Gln Gly Tyr Ser Phe Gln Tyr Ser Arg Cys Thr Gly Lys Arg Lys
180 185 190
Ala Leu Leu Ile Gly Ile Asn Tyr Phe Gly Gln Lys Gly Gln Leu Arg
195 200 205
Gly Cys Ile Asn Asp Val Lys Asn Met Ser Thr Tyr Leu Asn Gln Asn

```
    210                 215                 220
Phe Gly Tyr Ala Arg Glu Asp Met Val Leu Leu Thr Asp Asp Gln Gln
225                 230                 235                 240
Asn Pro Met Ser Gln Pro Thr Lys Ala Asn Ile Leu Arg Ala Met His
                245                 250                 255
Trp Leu Val Lys Asp Ala Gln Pro Asn Asp Ser Leu Phe Phe His Tyr
            260                 265                 270
Ser Gly Glu Thr Val Leu
        275
```

<210> 31107
<211> 177
<212> PRT
<213> A.fumigatus

<400> 31107

```
Thr Gln Leu Glu Val Leu Arg Leu Tyr Pro Pro Val Val Thr Val Pro
1               5                   10                  15
Lys Ser Thr Ser Glu Thr Pro Ser Pro Leu Thr Tyr Gln Gly Lys Gln
            20                  25                  30
Tyr Val Leu Pro Pro Arg Val Asn Ile Asn Leu Asn Thr Asn Cys Leu
        35                  40                  45
His Tyr Ser Glu Gln Tyr Trp Gly Pro Asp Val Ala Ile Phe Tyr Pro
    50                  55                  60
Gln Arg Trp Asp Ala Arg Asn Gln Asn Ser Phe Leu Ala Lys Asn Ala
65                  70                  75                  80
Ser Thr Gln Gly Leu Ala Gly Pro Gly Leu Glu Phe Pro Thr Val His
                85                  90                  95
Lys Pro Val Arg Gly Ala Phe Ile Pro Phe Ser Asp Gly Phe Arg Ala
            100                 105                 110
Cys Leu Gly Lys Lys Phe Ala Gln Val Glu Phe Ile Ala Ala Leu Ser
        115                 120                 125
Ala Leu Ser Arg Asn Tyr Lys Val Glu Leu Ala Asp Asp Ser Pro Glu
    130                 135                 140
Gly Arg Asn Asp Ala Glu Arg Val Leu Arg Glu Ser Thr Ser Val Leu
145                 150                 155                 160
Thr Leu Ser Met Arg Glu Asp Val Pro Ile Arg Phe Gln Arg Arg Lys
                165                 170                 175
Asp
```

<210> 31108
<211> 73
<212> PRT
<213> A.fumigatus

<400> 31108

```
Ala His Leu Thr Ala Gly Met Glu Thr Asn Arg Thr Glu Asp Phe Pro
1               5                   10                  15
Ser His Trp Lys Ala Thr Leu Leu Gly Glu Ala Phe Trp Lys Asp Ala
            20                  25                  30
Glu Arg Phe Asn Gln Pro Ile Asn Asp Ser Ile Glu Ala Ser Lys Leu
        35                  40                  45
Leu Leu Leu Leu Ala Tyr Thr Cys Pro Ile Thr Ala Thr Phe Val Leu
    50                  55                  60
Thr Met Asn Ala His Val Leu Ser Thr
```

65 70

<210> 31109
<211> 152
<212> PRT
<213> A.fumigatus

<400> 31109
Lys Arg Ser Cys Cys Pro Gln Val Ser Ser Cys Ala Gly Phe Leu Lys
1 5 10 15
Leu Pro Arg Gln Pro Glu Ser Val Thr Ser Thr Tyr Phe Arg Pro Ser
20 25 30
Ile Arg His His Asn Tyr Ile Arg Met Ser Thr Phe Phe Tyr Gly His
35 40 45
His Gln Gln His His His Gln Gly Ala Thr Ser His Met Pro Ser Ser
50 55 60
Asn Asn His His Asn Gly Arg Ser Arg Arg Gly Pro Lys Met Ala Ser
65 70 75 80
Gln Asn Ala Gln Arg Gln Phe Arg Gly Val Lys Ser Met Arg Glu Leu
85 90 95
Ala Glu Ala Pro Ala Val Thr Ala Phe Arg Ala Arg Phe Glu Ala Gly
100 105 110
Arg Ser Phe Asp Leu Asp Asp Asp Leu Glu Phe Cys Pro Gly Leu Leu
115 120 125
Thr Glu Asp Asp Val Cys Phe Asp Ser Pro Val Phe Gly Pro Pro Val
130 135 140
Pro Ser Arg Tyr Trp Pro Ser Ala
145 150

<210> 31110
<211> 62
<212> PRT
<213> A.fumigatus

<400> 31110
Leu Val Leu Val Tyr Glu Gly Leu Ala Met Gln Glu Ile Val Pro Pro
1 5 10 15
Asp Phe Leu Tyr Val Leu Gly Ala Thr Arg Ser Asn Asp Phe Gln Asp
20 25 30
Ala Thr Leu Glu Leu Val Ala Arg Ser Asp Ala Asp Asp Asp Gln Leu
35 40 45
Glu Glu Gly Thr Ser Asp Cys Ile Trp Glu Leu Arg His Val
50 55 60

<210> 31111
<211> 193
<212> PRT
<213> A.fumigatus

<400> 31111
Thr Gly Cys His Arg Asp Val Leu Ser Ser Leu Asp Leu Ile Gly Val
1 5 10 15
Phe Leu Ser Ser Val Ser Pro Arg Glu Asp Phe Leu Leu Ser Glu Leu
20 25 30
Ser Val Val Ile Lys Val Gln Leu Gly Val His Ser Gln Asn Leu Val
35 40 45

```
Val Gly Gly Leu Arg Gln Arg Val Asn Leu Asn Leu Ser Ser Val Leu
    50                  55                  60
Leu His Glu Asp Leu Val Gln Val Leu Asn Gly Cys Leu Gly Ile Leu
65                  70                  75                  80
Asp Ala Leu Leu Arg Glu Ala Lys Ile Gly Ser Asn Leu Ala Gly Asn
                85                  90                  95
Val Ile Ser His Ala Asn Leu Asp Val Asn Arg Ser Arg His Asp Ser
            100                 105                 110
Leu Arg Val Phe Leu Gly Asp Cys Leu Asn Ile His Thr Ala Leu Arg
        115                 120                 125
Arg Gly Asn Asn Asp Gly Gly Leu Ser Cys Ala Val His Glu Asp Gly
    130                 135                 140
Lys Ile Glu Phe Thr Thr Ser Glu Leu Ala Leu Ala Asn Val Asp Ser
145                 150                 155                 160
Val Ala Lys Ala Thr Ser Ser Thr Ser Leu Leu Gly Asp Glu Leu Val
                165                 170                 175
Ser Asp His Leu Ala Ser Glu His Leu Gly Leu Gly Trp Ala Gly Glu
            180                 185                 190
Lys
```

Sequence Listing

<210> 31112
<211> 213
<212> PRT
<213> A.fumigatus

<400> 31112

```
Val Ile Pro Leu Lys Ser Ser Leu Phe Ser Leu Arg His Phe Ser Leu
1               5                   10                  15
Leu Thr Leu Phe Leu Ser Ser Pro Thr Glu Ala Lys Met Phe Ala Ser
            20                  25                  30
Gln Met Ile Gly His Lys Leu Ile Thr Lys Gln Thr Gly Ala Ala Gly
        35                  40                  45
Arg Leu Cys Asn Ala Val Tyr Ile Cys Glu Arg Lys Phe Ala Arg Arg
    50                  55                  60
Glu Phe Tyr Leu Ala Val Leu Met Asp Arg Ala Thr Gln Thr Pro Val
65                  70                  75                  80
Ile Val Ala Ser Ser Gln Gly Gly Met Asp Ile Glu Ala Val Ala Lys
                85                  90                  95
Glu His Pro Glu Ala Ile Met Thr Thr Pro Ile Asp Ile Lys Val Gly
            100                 105                 110
Val Thr Asp Asp Ile Ala Arg Lys Ile Ala Thr Asp Leu Gly Phe Ser
        115                 120                 125
Glu Gln Cys Ile Glu Asp Ala Lys Thr Thr Ile Gln Asn Leu Tyr Lys
    130                 135                 140
Val Phe Met Glu Lys Asp Ala Thr Gln Ile Glu Ile Asn Pro Leu Ser
145                 150                 155                 160
Glu Thr Ser Asp His Gln Val Leu Ala Met Asp Ala Lys Leu Asn Phe
                165                 170                 175
Asp Asp Asn Ala Glu Phe Arg Gln Lys Glu Val Phe Ser Trp Arg Asp
            180                 185                 190
Thr Thr Gln Glu Asp Ala Asp Glu Val Lys Ala Ala Glu Tyr Val Pro
        195                 200                 205
Met Ala Pro Ser Leu
    210
```

<210> 31113
<211> 92
<212> PRT
<213> A.fumigatus

<400> 31113
Gln His Leu Arg Tyr Cys Pro His Ala Asp Arg Phe Leu Val Asn Gly
1 5 10 15
Ala Gly Leu Ala Met Ala Thr Met Asp Ile Ile Lys Leu Asn Gly Gly
20 25 30
Asn Pro Ala Asn Phe Leu Asp Val Gly Gly Gly Ala Thr Pro Ala Ala
35 40 45
Ile Lys Ser Ala Phe Glu Leu Ile Thr Ser Asp Pro Lys Val Thr Ala
50 55 60
Ile Phe Val Asn Ile Phe Gly Gly Ile Val Arg Cys Asp Ala Ile Ala
65 70 75 80
Arg Ser Ser Pro Arg Glu Ala Pro Ile Arg Val Lys
85 90

<210> 31114
<211> 155
<212> PRT
<213> A.fumigatus

<400> 31114
Arg Val Gly Ser Val Phe Glu Arg Arg Leu Ile Glu Ala Tyr Ile Ala
1 5 10 15
Glu Asn Gly Lys Asp Pro Val Asn Gly Glu Glu Leu Ser Val Asp Glu
20 25 30
Leu Ile Glu Val Lys Ser Gln Arg Val Val Arg Pro Arg Pro Pro Thr
35 40 45
Leu Thr Ser Ile Pro Ser Leu Leu Ser Val Phe Gln Glu Glu Trp Asp
50 55 60
Ala Leu Ala Leu Glu Thr Tyr Thr Leu Arg Gln Thr Leu Ala Gln Thr
65 70 75 80
Arg Gln Glu Leu Ser Ala Ala Leu Tyr Gln His Asp Ala Ala Val Arg
85 90 95
Val Ile Ala Arg Leu Thr Lys Glu Arg Asp Glu Ala Arg Asp Ala Leu
100 105 110
Ser Lys Val Thr Val Ser Ala Gly Arg Ala Gly Gly Glu Glu Ala Met
115 120 125
Gln Val Asp Ser Thr Gly Leu Pro Asp Ala Val Leu Ala Arg Ile Glu
130 135 140
Ser Thr Gln Val Ser Tyr Val Thr Trp Leu Ser
145 150 155

<210> 31115
<211> 178
<212> PRT
<213> A.fumigatus

<400> 31115
Phe Val Ile Leu Trp Leu Leu Thr Ser Pro Arg Leu Ser Lys Thr Arg
1 5 10 15
Arg Lys Arg Pro Ile Pro Glu Gly Trp Ala Thr Ser Asp Ala Leu Ser
20 25 30

```
Thr Tyr Lys Pro Thr Glu Thr Ser Lys Pro Leu Cys Gln Gly Gly Lys
        35                  40                  45
Ala Leu Ala Val Asn Ala Ala Gly Glu Met Ala Leu Val Gly Gly Ala
    50                  55                  60
Asp Gly Thr Val Gly Val Tyr Ser Leu Ser Glu Lys Arg Val Val Gly
65                  70                  75                  80
Asn Leu His Thr Ser Gly Pro Val Thr Ser Ala Val Trp Ala Gly Asp
                85                  90                  95
Lys Ala Val Ile Ala Ser Ser Thr Gly Ser Ile Gln Val Phe Glu Asp
            100                 105                 110
Gly Lys Glu Leu Ala Asn Phe Ala Ser His Ala Gly Ser Ala Thr Asp
        115                 120                 125
Leu Ala Leu His Ala Thr Gly Asp Ile Val Gly Ser Val Gly Val Asp
    130                 135                 140
Lys Ser Tyr Val Leu Tyr Asp Leu Thr Thr Asn Ser Val Ile Thr Gln
145                 150                 155                 160
Ile Phe Thr Asp Ser Cys Lys Gln Gly Leu Asn Arg Phe Val Cys Asn
                165                 170                 175
Leu Cys
```

<210> 31116
<211> 162
<212> PRT
<213> A.fumigatus

<400> 31116

```
Phe Leu Pro Ser Pro Leu Ala Leu His Thr Val Ala Phe His Pro Asp
1               5                   10                  15
Gly His Leu Ile Ala Ala Gly Gly Ala Asp Gly Gln Ile Lys Ile Phe
            20                  25                  30
Asp Val Lys Ser Gly Thr Ala Ala Ala Asn Tyr Ala Met Ser Gly Pro
        35                  40                  45
Val Lys Cys Leu Tyr Phe Ser Glu Asn Gly Thr Phe Leu Ala Ala Val
    50                  55                  60
Ala Asp Asn Ser Thr Val Leu Ser Ile Trp Asp Leu Arg Ser Ser Lys
65                  70                  75                  80
Glu Ile Lys Val Leu Glu Thr Gly Ser Gln Ile Asp Ser Ile Cys Trp
                85                  90                  95
Asp Tyr Thr Gly Gln Phe Leu Leu Thr Gly Gly Pro Ser Gly Val Thr
            100                 105                 110
Val Gln Gln Tyr Ser Lys Ala Ser Lys Glu Trp Ser Glu Pro Leu Arg
        115                 120                 125
Ser Ala Val Pro Ala Val Ala Val Ala Trp Gly Ser Ala Ala Gln Ser
    130                 135                 140
Ile Val Val Leu Asn Ser Glu Gly Gly Val Thr Val Leu Thr Ala Gln
145                 150                 155                 160
Glu Ser
```

<210> 31117
<211> 141
<212> PRT
<213> A.fumigatus

<400> 31117

```
Asp Lys Tyr Thr Asp Ile Thr Leu Asn Arg Phe Arg Thr Ser Leu Cys
1               5                  10                  15
His Ile Phe Leu Ser Ser Ile Leu Leu Leu Leu Leu Asp Ser Cys
            20                  25                  30
Ser Val Pro Ile Thr Lys Ser Ser Arg Trp Leu Phe Phe Ile Gly Leu
        35                  40                  45
Pro Gln Leu Ser Leu Leu Ser Arg Ile Gln Tyr Asn Val Asn His Thr
    50                  55                  60
Leu Lys Gly Met Ser Phe Ser Ser Gly Ala Leu Arg Ser Ser Ser Ile
65                  70                  75                  80
Ser Thr Arg Val Gln Leu Leu Ser Ile Leu His Pro Val Arg Ser Ser
                85                  90                  95
Leu Gly Pro His His Asn Tyr His His His His Gln Gln Pro Gln Tyr
            100                 105                 110
His Arg Arg Pro Tyr Ser Ser Ser Ser Ser Lys Pro Asp Ser Pro Pro
        115                 120                 125
Pro Ser Ser Ser Ser Ser Ser Ser Ala Ser Ser Gly Val
    130                 135                 140
```

<210> 31118
<211> 498
<212> PRT
<213> A.fumigatus

```
<400> 31118
Val Leu Ser Val Leu Lys Leu Ser Phe Leu Lys Thr Leu His Leu Leu
1               5                  10                  15
Leu Pro Leu Leu Leu Pro Tyr Thr Leu Ser Pro Phe Ser Tyr His Thr
            20                  25                  30
Ser Pro Ser Ala Tyr Gln Arg Leu Ile Ile Ser Thr Cys Leu Asn Gln
        35                  40                  45
Ser Gly Glu Ile Gln Ala Ser Lys Glu Thr Gly Gly Ser Tyr Leu Val
    50                  55                  60
Glu Glu Glu Ala Ala Asp Pro Leu Asn Pro Thr Ser Ile His Pro Ile
65                  70                  75                  80
His Lys Thr Thr Thr Pro Val Leu Gln Gln Gly Asp Ser Asn Leu Val
                85                  90                  95
Ser Val Glu Leu Pro Ser Arg Ser Lys Gln Phe Arg Phe Tyr Ser Arg
            100                 105                 110
Leu Leu Arg His Leu Val Ala Glu Val Asp Thr Gly Met Phe Ser Pro
        115                 120                 125
Glu Asp Glu Ser Ala Ile Ser Met Tyr Ser Ser Ala Val Leu Thr Arg
    130                 135                 140
Leu Ser Ala Ile Gln Leu Thr Lys Asn Thr Glu Gln Lys Pro Gly Asp
145                 150                 155                 160
Ser Gln Glu Pro Gly Ile Met Ser Thr Gly Asn Val Asn Ala Ser Val
                165                 170                 175
Ser Lys Gly Leu Asp Ser Lys Thr Ser Asn Thr Phe Ser Asn Ala Tyr
            180                 185                 190
Gln Thr Gly Ser Ser Asn Cys Glu Gly Glu Gly Asn Ile Phe Thr Lys
        195                 200                 205
Cys Glu Asn Pro Leu Val Pro Arg Leu Ser Cys Gly Gln Thr Ala Ser
    210                 215                 220
Asn Asn Tyr Leu Ala Tyr His Ser Ser Ser Phe Lys Pro Arg Leu Glu
225                 230                 235                 240
Glu Gly Leu Val Leu Ser Pro Gln Ser Leu Gln Leu Val Pro Thr Lys
```

```
                245                 250                 255
Lys Ser Phe Tyr Gln Gly Gln Val Arg Asn Ala His Ala Met Val Lys
            260                 265                 270
Asp Thr Arg Pro Thr Lys Leu Ser Ala Phe Gln Arg Leu Pro Gly Glu
        275                 280                 285
Leu Arg Trp Arg Ile Tyr Asp Leu Val Phe Asp Val His Arg Val Glu
    290                 295                 300
Val Leu Arg Leu Arg Asp Lys Asn Pro Glu Asn Asn Ile Lys Arg Val
305                 310                 315                 320
His Tyr Arg Leu Tyr His Arg Gln Leu Arg Pro Arg Asp Pro Arg Thr
                325                 330                 335
His Val Ala Pro Ser Asn Glu Gly Arg Phe Thr Cys Ala Pro Leu Pro
            340                 345                 350
Ile Ala Leu Leu Ile Thr Cys Arg Ser Ile Tyr Arg Asp Thr Leu Cys
        355                 360                 365
Leu Phe Tyr Ser Arg Met Gln Phe Ile Phe Asn Thr Thr Arg Thr Val
    370                 375                 380
Met Arg Phe Leu Lys Ile Thr Ser Lys Glu Ala Gln Met Ala Ile Gln
385                 390                 395                 400
His Ile Glu Leu Asn His Thr Met Tyr Ser Glu Pro Ala Leu Leu Asn
                405                 410                 415
Phe Arg Trp Tyr Lys Cys Met Ser Asp Met Ser Trp Tyr Asn Ala Cys
            420                 425                 430
Asp Asp Leu Thr Val Tyr Cys Lys Ser Leu Arg Val Leu His Ile Ser
        435                 440                 445
Met Asn Ile Arg Asp Trp Pro Ile Ser Leu Gln Val Gly Glu Arg Trp
    450                 455                 460
Ser Leu Pro Leu Leu Ala Phe Ala Arg Tyr Gly Pro Arg Leu Asp Trp
465                 470                 475                 480
Val Asp Ile Arg Pro Gln Met Phe Phe Gln Lys Thr Glu Glu Gln Tyr
                485                 490                 495
Leu Glu
```

<210> 31119
<211> 514
<212> PRT
<213> A.fumigatus

<400> 31119

```
Arg Thr Arg Glu Lys Phe Ala Asn Asn Asn Pro Arg Ser Ala His Ala
1               5                   10                  15
Gln Asn Ala Phe Tyr Gln Thr Leu Leu Arg Ala Asn Met Pro Ala Ile
            20                  25                  30
Ile Val Glu Arg Tyr Arg Ser Gly Gln Phe Ala Ser Asn Ala Leu Ser
        35                  40                  45
Glu Ala Ile Tyr Leu Lys Ala Leu Gln Arg Val Gly Gly Ala Asp Ser
    50                  55                  60
Ala Thr Ala Ala Pro Val Gln Ser Gln Asn Gln His Leu Thr Pro Asp
65                  70                  75                  80
Gln Leu Gln Ala Val Gly Gln Ala Val Ala Ala Arg Asn His Gly Ser
                85                  90                  95
Gln Ile Gly Leu Ala Thr Lys Gln Ser Gly Thr Gly Ala Lys Asp Asn
            100                 105                 110
Pro Leu His Val Val Val Glu Glu Ser Leu Gly Ser Ser Val Phe Arg
        115                 120                 125
```

```
Trp Val Lys Phe Leu Leu Val Phe Gly Phe Phe Thr Tyr Ile Ser Leu
    130                 135                 140
Val Val Ile Thr Ile Leu Val Glu Thr Thr Gly Val Leu Lys Asn Ile
145                 150                 155                 160
Lys Gly Pro Gln Ser Asn Glu Ala Gln Pro Gln Gln Gln Thr Val Arg
                165                 170                 175
Phe Ser Asp Val His Gly Cys Asp Glu Ala Lys Glu Glu Leu Gln Glu
            180                 185                 190
Leu Val Glu Phe Leu Leu Asn Pro Glu Arg Phe Ser Ser Leu Gly Gly
        195                 200                 205
Lys Leu Pro Lys Gly Val Leu Leu Val Gly Pro Pro Gly Thr Gly Lys
    210                 215                 220
Thr Leu Leu Ala Arg Ala Val Ala Gly Glu Ala Gly Val Pro Phe Phe
225                 230                 235                 240
Tyr Met Ser Gly Ser Glu Phe Asp Glu Val Tyr Val Gly Val Gly Ala
                245                 250                 255
Lys Arg Val Arg Glu Leu Phe Ala Gln Ala Arg Ser Lys Ser Pro Ala
            260                 265                 270
Ile Ile Phe Ile Asp Glu Leu Asp Ala Ile Gly Ala Lys Arg Asn Glu
        275                 280                 285
Arg Asp Ala Ala Tyr Val Lys Gln Thr Leu Asn Gln Leu Leu Thr Glu
    290                 295                 300
Leu Asp Gly Phe Ser Gln Thr Ser Gly Val Ile Ile Ile Ala Ala Thr
305                 310                 315                 320
Asn Phe Pro Gln Leu Leu Asp Lys Ala Leu Thr Arg Pro Gly Arg Phe
                325                 330                 335
Asp Arg Lys Val Val Val Asp Leu Pro Asp Val Arg Gly Arg Met Asp
            340                 345                 350
Ile Leu Lys His His Leu Lys Asn Ile Lys Ile Ser Thr Asp Val Asp
        355                 360                 365
Val Ala Val Leu Ala Arg Gly Thr Pro Gly Phe Ser Gly Ala Asp Leu
    370                 375                 380
Glu Asn Leu Val Asn Gln Ala Ala Ile Tyr Ala Ser Arg Asn Lys Lys
385                 390                 395                 400
Pro Lys Val Gly Pro Lys Asp Leu Asp Trp Ala Lys Asp Lys Ile Met
                405                 410                 415
Met Gly Ala Glu Ala Arg Ser Arg Ile Ile Gln Asp Lys Asp Lys Leu
            420                 425                 430
Leu Thr Ala Tyr His Glu Ala Gly His Ala Leu Val Ala Tyr Phe Ser
        435                 440                 445
Pro Ser Ser Thr Pro Leu Tyr Lys Ile Thr Ile Val Pro Arg Gly Met
    450                 455                 460
Ala Leu Gly Val Thr His Phe Leu Pro Glu Met Asp Met Val Ser Arg
465                 470                 475                 480
Asn Tyr Thr Glu Tyr Leu Ser Asp Ile Asp Val Ser Met Gly Arg Lys
                485                 490                 495
Ser Asn Glu Glu Leu Val Ser Gly Leu Thr Gly Tyr Lys Trp Asp Phe
            500                 505                 510
Arg Arg
```

<210> 31120
<211> 65
<212> PRT
<213> A.fumigatus

<400> 31120
Leu Leu Arg Pro Ser Ala Ala Leu Thr Arg Asp Asn Tyr Gly Phe Pro
1 5 10 15
Ser Pro Gly Leu Lys Thr Gly Lys Gly Pro His Ile Ser Cys Ala Ser
20 25 30
Tyr Ala Ile Tyr Ser Asp Phe Pro Phe Ser Thr Glu Ser Cys Gly Arg
35 40 45
His Phe Arg Ser Leu Ala Ile Asp Val Lys Ala Ile Lys Cys Ala Leu
50 55 60
Gly
65

<210> 31121
<211> 245
<212> PRT
<213> A.fumigatus

<400> 31121
Gln Asp Phe Glu Ser Leu Arg Ile Asp Leu Pro Pro Lys Ile Pro Leu
1 5 10 15
Val Thr Cys Gln Ala Arg Asn Gln Leu Phe Val Ala Phe Ser Ala His
20 25 30
Gly Asp Val Asp Ile Gly Gln Ile Leu Arg Val Ile Pro Gly Asn His
35 40 45
Val His Leu Arg Gln Lys Val Arg His Ser Gln Arg His Ser Ala Gly
50 55 60
Asn Asp Gly Asp Phe Val Gln Trp Arg Arg Arg Arg Arg Glu Ile Ser
65 70 75 80
Asn Glu Arg Met Thr Cys Leu Met Val Gly Ser Gln Lys Leu Val Leu
85 90 95
Ile Leu Asn Asn Pro Ala Ala Ser Leu Cys Ala His His Asp Leu Val
100 105 110
Phe Gly Pro Val Glu Val Leu Gly Ser Asn Leu Arg Leu Leu Val Ser
115 120 125
Ala Ser Val Asn Gly Gly Leu Val Asp Gln Ile Leu Gln Ile Gly Thr
130 135 140
Arg Lys Ala Arg Ser Ala Ala Cys Lys His Cys Asn Val Asp Ile Cys
145 150 155 160
Thr Asp Leu Asn Val Leu Gln Val Met Leu Gln Tyr Val His Pro Thr
165 170 175
Pro Asp Ile Arg Lys Val Asp Asp His Leu Ala Ile Glu Ser Ala Arg
180 185 190
Ser Cys Gln Ser Leu Val Lys Gln Leu Arg Glu Ile Gly Cys Gly Asp
195 200 205
Asp Asp Asp Ser Thr Gly Leu Arg Glu Ser Val Lys Leu Arg Lys Gln
210 215 220
Leu Val Gln Ser Leu Leu His Ile Ser Cys Ile Ser Leu Ile Pro Leu
225 230 235 240
Gly Thr Asn Gly Val
245

<210> 31122
<211> 416
<212> PRT
<213> A.fumigatus

<400> 31122

```
Leu Ala Asp Ser Phe Lys Asn Phe Tyr Met Tyr Phe Thr Glu Lys Arg
1               5                  10                  15
His Asp Thr Asn Gly Ile Pro Arg Asp Pro Val Gly Ser Trp Pro Ser
            20                  25                  30
Gln Asp Trp Arg Met Lys Asp Arg Leu Lys Thr Val Ser Ala Ala Leu
        35                  40                  45
Ala Ile Cys Leu Asn Ile Gly Val Asp Pro Pro Asp Val Val Lys Thr
    50                  55                  60
Asn Pro Ser Ala Lys Leu Glu Cys Trp Val Asp Pro Thr Ser Thr Thr
65                  70                  75                  80
Gly Gly Gly Gln Asn Lys Ile Met Glu Gln Ile Gly Lys Lys Leu Gln
                85                  90                  95
Glu Gln Tyr Glu Thr Leu Ser Leu Arg Thr Arg Tyr Lys Gln Tyr Leu
            100                 105                 110
Asp Pro Ser Val Asp Glu Thr Lys Lys Phe Cys Ile Ser Leu Arg Arg
        115                 120                 125
Asn Ala Lys Asp Glu Arg Val Leu Phe His Tyr Asn Gly His Gly Val
    130                 135                 140
Pro Leu Pro Thr Gln Ser Gly Glu Ile Trp Val Phe Asn Lys Asn Tyr
145                 150                 155                 160
Thr Gln Tyr Ile Pro Val Ser Leu Tyr Asp Leu Gln Ser Trp Leu Ala
                165                 170                 175
Gly Pro Ser Leu Phe Val Phe Asp Val Ser His Ala Gly Asn Ile Val
            180                 185                 190
Gln Asn Phe His Ile Phe Val Glu Lys His Glu Lys Glu Asn Leu Glu
        195                 200                 205
Ala Lys Lys Arg Asp Pro Asn Ala Val Val Gln Asn Tyr Gly Asp Cys
    210                 215                 220
Ile Leu Leu Ala Ala Cys Gln Lys Asn Glu Ser Leu Pro Thr Asn Pro
225                 230                 235                 240
Asp Leu Pro Ala Asp Leu Phe Thr Cys Cys Leu Thr Thr Pro Ile Glu
                245                 250                 255
Ile Ala Leu Arg Tyr Phe Ile Leu Gln Asn Pro Leu Gln Thr Asn Leu
            260                 265                 270
Ser Ile Asp Glu Phe Arg Val Pro Gly Arg Leu Gln Asp Arg Arg Ser
        275                 280                 285
Pro Leu Gly Glu Leu Asn Trp Ile Phe Thr Ala Ile Thr Asp Thr Ile
    290                 295                 300
Ala Trp Asn Thr Leu Pro Arg Ala Leu Phe Lys Lys Leu Phe Arg Gln
305                 310                 315                 320
Asp Leu Met Val Ala Ala Leu Phe Arg Asn Phe Leu Leu Ser Glu Arg
                325                 330                 335
Ile Met Arg Thr Tyr Lys Cys His Pro Ile Ser Ser Pro Glu Leu Pro
            340                 345                 350
Glu Thr His His His Pro Leu Trp Lys Ser Trp Asp Leu Ala Val Glu
        355                 360                 365
Met Val Leu Ser Gln Leu Pro Ala Leu Ile Asp His Glu Glu Gly Arg
    370                 375                 380
Arg Gln Tyr Glu Tyr Gln His Ser Thr Phe Phe Ala Glu Gln Leu Thr
385                 390                 395                 400
Ala Phe Glu Val Tyr Leu Lys Ser Phe His Gln Pro Gln Lys Thr Thr
                405                 410                 415
```

<210> 31123
<211> 138

<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (69)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31123
Thr Phe Leu Glu Leu Ile Ala Ser Pro Ser Phe Ser Arg Thr Val Ala
1 5 10 15
Pro Ile Leu Ile Ser Val Gly Ile Trp Lys Ser Phe Thr Ile Arg Leu
20 25 30
Ile Thr Thr Val Cys Trp Thr Ser Phe Cys Pro Lys Tyr Ala Arg Ser
35 40 45
Ala Gln Thr Ile Leu Lys Ser Phe Met Gln Thr Val Ala Thr Pro Arg
50 55 60
Lys Lys Thr Gly Xaa Glu Ala Pro Ser Ser Phe Phe Glu Met Gly Val
65 70 75 80
Ile Val Thr Asn Glu Pro Ser Pro Phe Thr Ser Asp Asp Gly Gly Asn
85 90 95
Val Gly Tyr Met Thr Leu Asp Val Gly Ala Arg Ile Ala Val Thr Arg
100 105 110
Pro Tyr Phe Ser Pro Trp Arg Asp Asn Ser Ser Phe Asn Cys Ser Ile
115 120 125
Phe Ala Thr Ser Leu Ser His Val Arg Gly
130 135

<210> 31124
<211> 186
<212> PRT
<213> A.fumigatus

<400> 31124
Leu Arg Leu Thr Met Pro Val Glu Lys Ala Pro Met Glu Ala Pro Asp
1 5 10 15
Leu Glu Ile Val Gly Asp Lys Val Thr Ile His Pro Ser Gly Tyr Thr
20 25 30
Gly Gly Pro Gln Asp Gly Pro Ile Thr Glu Arg Asn Leu Val Ser His
35 40 45
Met Ala Arg Phe Arg Glu Asn Pro Phe Asp Phe Leu Arg Glu Val Ser
50 55 60
Leu Tyr Met Ser Gly Thr Gly Trp Arg Ala Tyr Asn Asp Val Ile Gly
65 70 75 80
Gln Pro Ile Phe Tyr Pro Gly Phe Ser Glu Arg Ile Lys Ser Ser Ile
85 90 95
Leu Ala Ser Pro Ile Leu Gln Ala Lys Val Lys Glu Leu Ala Glu Met
100 105 110
Arg Leu Ala Val Glu Glu Lys Glu Gly Leu Leu Gln Met Gly Gln Gly
115 120 125
Pro Val Ser Lys Lys Lys Lys Gln Arg Arg Ala Glu Ile Glu Ser Asn
130 135 140
Leu Lys Glu Val Val Asp Thr Met Met Asp Asn Met Ile Leu Gln Met
145 150 155 160
Glu Ser Lys Thr Phe Ile Arg Gly Ala Tyr Tyr Leu Cys Thr Gln Leu
165 170 175

```
Leu Thr Arg Ala Leu Ser Ser Gly Leu Lys
            180                 185

<210> 31125
<211> 131
<212> PRT
<213> A.fumigatus

<400> 31125
Val Arg Glu Met Phe Thr Trp Gly Ser Arg Arg Arg Ala Val Gly Leu
1               5                  10                  15
Val Leu Tyr Asn Ala Leu Lys Ala Ala Glu Asp Ala Tyr Leu Ser Gly
            20                  25                  30
Lys Asn Asn Arg Asn Glu Ile Leu Asp Ala Ala Asn Arg Met Thr Gln
        35                  40                  45
Lys Val Leu Gly Glu Gln Gln Ala Leu Lys Pro Thr Glu Arg Ala Leu
    50                  55                  60
Tyr Glu Val Asp Tyr Ile Ser Leu Ala Asp Pro Asp Thr Leu Asp Glu
65                  70                  75                  80
Leu Glu Val Val Asp Pro Ser Arg Gly Ala Ile Leu Ser Gly Ala Ile
                85                  90                  95
Lys Met Ala Pro Leu Glu Val Ser Asn Pro Gly Glu Asp Cys Gly Leu
            100                 105                 110
Gly Asp Gly Lys Val Pro Val Arg Leu Ile Asp Asn Leu Ile Leu Thr
        115                 120                 125
Pro Arg Val
    130

<210> 31126
<211> 260
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (171)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31126
Pro Glu Lys Arg Asp Ala Leu Ser Asp Phe Cys Leu Ser Leu Ile Ala
1               5                  10                  15
Thr Thr Ser Leu Phe Asn Ser Thr Met Ala Ser Arg Gln His Ser Phe
            20                  25                  30
Glu Val Phe Arg Asp Val Ala Pro Leu Arg Lys Met Arg Arg Gln Leu
        35                  40                  45
Leu Leu Ser Asn Arg Thr Val Gly Leu Val Pro Thr Met Gly Ala Leu
    50                  55                  60
His Glu Gly His Leu Ser Leu Met Arg Gln Ala Ala Ala Asp Asn Thr
65                  70                  75                  80
Asp Val Phe Val Ser Ile Tyr Val Asn Pro Thr Gln Phe Gly Val Asn
                85                  90                  95
Glu Asp Leu Ala Ser Tyr Pro Arg Thr Trp Asp Ser Asp Val Ala Lys
            100                 105                 110
Ile Glu Gln Leu Asn Glu Glu Leu Ser Arg Gln Gly Glu Lys Tyr Gly
        115                 120                 125
Arg Val Thr Ala Ile Leu Ala Pro Thr Ser Lys Val Met Tyr Pro Thr
```

```
    130                 135                 140
Leu Pro Pro Ser Ser Glu Val Asn Gly Asp Gly Ser Phe Val Thr Ile
145                 150                 155                 160
Thr Pro Ile Ser Lys Lys Leu Glu Gly Ala Xaa Arg Pro Val Phe Phe
                165                 170                 175
Arg Gly Val Ala Thr Val Cys Met Lys Leu Phe Asn Ile Val Cys Ala
            180                 185                 190
Asp Arg Ala Tyr Phe Gly Gln Lys Asp Val Gln Gln Thr Val Val Ile
        195                 200                 205
Lys Arg Met Val Lys Asp Phe His Ile Pro Thr Glu Ile Lys Ile Gly
    210                 215                 220
Ala Thr Val Arg Glu Asn Asp Gly Leu Ala Met Ser Ser Arg Asn Val
225                 230                 235                 240
Tyr Leu Gly Val Gln Thr Thr Cys Arg Trp Ser Cys Ser Leu Gln Arg
                245                 250                 255
Leu Glu Ser Ser
            260
```

<210> 31127
<211> 209
<212> PRT
<213> A.fumigatus

```
<400> 31127
Gln Ala Ala Val His Ser Ser Pro Thr Asn Phe Leu Met Ala Asp Asp
1               5                   10                  15
Gly Leu Leu Leu Asn Phe Ser Leu Gly Asp Asn Asn Ile Ile Gln Arg
            20                  25                  30
Glu Thr Lys Leu Lys Gly Gly Thr Trp Arg Asp Arg Leu Ser Ala Lys
        35                  40                  45
Lys Ile Ala Lys His His Ala Lys Gly Pro Arg Thr Ala Gly Asp Glu
    50                  55                  60
Asp Ser Ala Pro Arg Ala Pro Arg Asn Pro Asn Arg Ile Glu Val Pro
65                  70                  75                  80
Ser Ser Arg Pro Thr Lys Arg Gln Arg Thr Asp Gly Gly Asp Ser Gly
                85                  90                  95
Lys Gln Gln Ser His Gly His Pro His Ser Asn Gln Pro Arg Gln Phe
            100                 105                 110
Ile Ser Ser Leu Phe Thr Lys Asn Pro Glu Pro Gln Lys Ala Glu Glu
        115                 120                 125
Val Lys Glu Glu Gly His Val Glu Asn Ala Lys Pro Thr Asn Ala Pro
    130                 135                 140
Leu Ile Asp Gly Leu Asp Thr Phe Thr Asn Leu Gly Leu Ser Pro Asn
145                 150                 155                 160
Leu Ala Ala His Leu Leu Thr Lys Leu Glu Leu Lys Ala Pro Thr Ala
                165                 170                 175
Ile Gln Lys Ala Ser Ile Ser Gln Leu Leu Lys Glu Glu Gly Asp Ala
            180                 185                 190
Phe Ile Gln Ala Glu Thr Gly Ser Ser Pro Gly Ala Glu Arg Ala Ser
        195                 200                 205
Val
```

<210> 31128
<211> 288
<212> PRT

<213> A.fumigatus

<220>
<221> UNSURE
<222> (280)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31128

```
Asp Gly Val Ser Ile Phe Ile Leu Leu Ser Met Glu His Cys Leu Asp
1               5                  10                  15
Pro Glu Pro Lys Met Ser Asp Thr Glu Ile Glu Gly Gly Leu Asp Leu
            20                  25                  30
Gln Gln Thr Arg Ser Gly Trp Ser Ile Ala Glu Ser Leu Ser Pro Val
        35                  40                  45
Arg Glu Thr Val Phe Ile Phe Val Ile Cys Met Ala Gln Phe Met Thr
    50                  55                  60
Gln Ala Gly Leu Gly Ser Gln Leu Ala Pro Leu Thr Ile Ile Gly Asn
65                  70                  75                  80
Ser Phe His Ile Thr Asp Asn Gly Ile Leu Ser Trp Phe Val Ala Gly
                85                  90                  95
Tyr Ser Leu Thr Val Gly Thr Phe Ile Leu Phe Phe Gly Arg Cys Gly
            100                 105                 110
Asp Cys Phe Gly Tyr His Thr Met Phe Val Ile Gly Phe Val Trp Phe
        115                 120                 125
Gly Ile Trp Ser Met Val Ala Gly Val Ser Val Tyr Ser Asn Ser Val
    130                 135                 140
Leu Phe Ile Phe Ala Arg Thr Ala Gln Gly Leu Gly Pro Ala Met Leu
145                 150                 155                 160
Leu Pro Asn Gly Leu Ala Ile Leu Gly Ala Thr Tyr Arg Pro Gly Pro
                165                 170                 175
Lys Lys Asp Met Ile Phe Ala Ile Phe Gly Ala Thr Ala Pro Asn Gly
            180                 185                 190
Ala Ile Ile Gly Ala Val Phe Ala Ala Leu Phe Ser Gln Leu Ala Trp
        195                 200                 205
Trp Pro Trp Thr Phe Trp Ala Thr Ala Ile Val Cys Leu Val Leu Ala
    210                 215                 220
Ala Leu Gly Trp Ala Val Ile Pro Arg Ile His His Glu Arg Glu Lys
225                 230                 235                 240
His Gly His Asp Ser Val Glu Trp Met Gln Glu Leu Asp Ile Val Gly
                245                 250                 255
Ala Cys Leu Gly Trp Gly Gly Leu Ile Phe Val Thr Trp Pro Gly Thr
            260                 265                 270
Arg Arg Pro Leu Ser Ala Gly Xaa Arg Arg Lys Cys Thr Cys Leu Leu
        275                 280                 285
```

<210> 31129
<211> 171
<212> PRT
<213> A.fumigatus

<400> 31129

```
Trp Leu Ser Thr Ser Asp Ala Thr Tyr Ser Ser Arg Ser Ser Ser Ser
1               5                  10                  15
Thr Thr Ser Leu Ser Trp Arg Cys Ala Ser Thr Ser Ala Pro Ala Val
            20                  25                  30
His Gly Ser Ser Glu Pro Ile Cys Ala Ser Val His Ala Ile Thr Ser
```

```
        35                  40                  45
Ser Val Pro Tyr Thr Gly Pro Ser Thr Val Arg Ile Leu Ser Val Thr
    50                  55                  60
Ser Asn Gly Thr Ser Asp Tyr Arg Pro Pro Leu Ser Ser Thr Leu Ser
65                  70                  75                  80
Gln Arg Phe Glu Arg Arg Pro Ala Ser Ala Asn Val Ser Cys Gly Ser
                85                  90                  95
His Pro Gln Cys Pro Asp Thr Ile Ala Pro Ser Val Ala Val Ala Tyr
            100                 105                 110
Gly Ser Pro Gly Ala Val Ala Ser Trp Gln Asp Gly Arg His Val Ser
        115                 120                 125
Gln Cys Arg Arg Arg Ser Asp Glu His Trp Gln Glu Phe Gly Ser Gln
    130                 135                 140
Trp Asn Ala Arg Gly Ile Trp Gly Glu Arg Gln Ser Ile Val Lys Lys
145                 150                 155                 160
Ser Thr Phe Val Thr Trp Gly Ile Arg Leu Arg
                165                 170
```

<210> 31130
<211> 297
<212> PRT
<213> A.fumigatus

<400> 31130

```
Arg Gln Asn Leu Pro Gln His Ala Leu Pro Lys Leu Asn Gly Asp Tyr
1               5                   10                  15
Gly Ser Val Ala Glu Gly Pro Leu Tyr Glu Cys His Lys Cys Tyr Leu
            20                  25                  30
Lys Asn Ala Ala Ala Gln Pro Ser Pro Glu Pro Arg Pro Ser Pro Tyr
        35                  40                  45
Ser Ala Gln Arg Pro Val Leu Pro Ala Pro Arg Ile Pro Glu Tyr His
    50                  55                  60
Gly His Pro Tyr Gly Pro His Ala His Pro Thr Pro Pro Pro Thr Asn
65                  70                  75                  80
Ala Leu Pro Arg Pro Leu Asn Gly Pro Leu Ala His Gly Thr Glu Trp
                85                  90                  95
Tyr Pro Ala His Glu Gln Arg Pro Thr Glu Leu Ala Asp Gly Lys Leu
            100                 105                 110
Arg Asn Gly Leu Pro Val Pro Ala Tyr His Gly Gly Pro Pro Pro Val
        115                 120                 125
Gln Thr His Pro Leu Asn Gly Phe Gln His Pro Thr Pro Pro Thr His
    130                 135                 140
Pro Ala Pro Pro Pro Pro Pro Pro His Tyr Pro Gly Gly Ala Pro Pro
145                 150                 155                 160
Pro Pro His Gln Pro Tyr Thr Val His Gln Ser Pro Tyr Ala Pro Val
                165                 170                 175
Ser Met Pro Ser Pro His Pro Ser His Thr Pro Gly Pro Leu Pro Tyr
            180                 185                 190
Ala Ser Ser Ala Ser Pro Pro Thr Ala Gln Ala Thr Ile Val Arg His
        195                 200                 205
Ser Pro Gln His Ser Leu Ser Ala Leu Asn Gly Gly Pro Pro Pro Arg
    210                 215                 220
Met Tyr Pro Val Asp Arg Ile Leu Ser Ala Pro Thr Gln Ser Pro Pro
225                 230                 235                 240
Val Ser Gln Ser Arg Met Asp Pro Arg Gly Pro Ser Pro Pro Gly Lys
                245                 250                 255
```

```
Thr Glu Asp Thr Ser Leu Ser Ala Ala Gly Gly Ala Met Ser Thr Gly
            260                 265                 270
Arg Ser Ser Gly Val Asn Gly Thr His Gly Gly Ser Gly Ala Ser Ala
        275                 280                 285
Ser Pro Ser Leu Lys Asn Leu Leu Ser
    290                 295
```

<210> 31131
<211> 193
<212> PRT
<213> A.fumigatus

<400> 31131

```
Trp Ala Met Pro Leu Arg Ile Thr Ser Ala Pro Val Ser Gly Ile Gln
1               5                   10                  15
Lys Lys Lys Arg Pro Ala Thr Phe Lys Pro Arg Ala Ser Pro Phe Ala
            20                  25                  30
Gly His Ala Arg Gln Lys Ala Ala Val Gln Ser Ser His Pro Ser Lys
        35                  40                  45
Ser Asp Gln Leu Asp Glu Leu Tyr Thr Gly Asp Phe Asp Gln Gly Pro
    50                  55                  60
Leu Pro Asp Leu Gly Ser Ser His Tyr Val Ser Gln Ile Ala Ala Val
65                  70                  75                  80
Glu Asp Val Ile Gln Ala Ile His Tyr Ile Arg Asp Arg Met Phe Glu
                85                  90                  95
Asp Ile Pro Ala Arg Ala Gly Met Asn Ser Thr Arg Ile Ala Glu Val
            100                 105                 110
Leu Asn Leu Arg Arg Ser Leu Pro Pro Leu Ala Ser Val Ala His Val
        115                 120                 125
His Thr Leu Met Asp Ala Pro Thr Lys Val Glu Lys Glu Ile Val Asp
    130                 135                 140
Leu Ile Thr Ala Gly Arg Val Arg Arg Leu Ile Val Pro Gly Arg Gly
145                 150                 155                 160
Thr Asp Ala Ala Gly Leu Gly Asp Cys Leu Val Leu Thr Glu Asp Trp
                165                 170                 175
Glu Arg Leu Val Arg Glu Ser Ser Val Leu Glu Ala Ser Val Lys Gly
            180                 185                 190
Lys
```

<210> 31132
<211> 76
<212> PRT
<213> A.fumigatus

<400> 31132

```
Tyr Arg Asp Trp Val Trp Asn Ala Phe Glu Asn Ile Asn Lys Tyr Cys
1               5                   10                  15
Arg Thr Glu Ser Gly Phe Ala Gly Leu Thr Asn Val Asn Ala Val Asn
            20                  25                  30
Gly Gly Gly Arg Tyr Asp Asn Gln Glu Ser Phe Leu Phe Ala Glu Val
        35                  40                  45
Met Lys Tyr Ala Tyr Leu Thr His Ala Pro Gly Met Ser Ser Met Pro
    50                  55                  60
Ala Ala Ala Glu Asp Lys Ala Asn Lys Ser Arg Gly
65                  70                  75
```

<210> 31133
<211> 199
<212> PRT
<213> A.fumigatus

<400> 31133
Ile Glu Lys Ile Phe Phe Ala Cys Phe Ile Asp Arg Met Gly Ser Thr
1 5 10 15
Lys Pro Arg Thr Ser Ala Gln Ala Ser Ala Pro Lys Val Gln Ser Leu
20 25 30
Pro Glu Lys Thr Phe Ile Ile Asp Asn Gly Ala Tyr Thr Leu Lys Ala
35 40 45
Gly Tyr Ala Pro Gly Phe Pro Pro Pro Glu Asp Leu Gly Gln Ala Leu
50 55 60
Ser Ala Cys Ser Thr Ile Pro Asn Ala Ile Ala Lys Thr Arg Gly Asn
65 70 75 80
Arg Ile Tyr Ile Gly Ala Gln Leu Asn Ser Gln Val Thr Asp Trp Asn
85 90 95
Glu Met Val Phe Arg Arg Pro Val Glu Lys Gly Tyr Ile Val Asn Trp
100 105 110
Glu Ala Gln Lys Glu Ile Trp Asp Asn Ala Phe Phe Asp Glu Lys Thr
115 120 125
Val Arg Ser Lys Asp Leu Arg Ile Glu Ser Pro Glu Asp Thr Thr Leu
130 135 140
Val Leu Thr Glu Ala Pro Asn Ala Leu Pro Thr Leu Gln Lys Asn Ala
145 150 155 160
Asp Glu Ile Val Met Glu Glu Trp Gly Phe Gly Gly Tyr Val Arg Phe
165 170 175
Val Gly Lys Ile Ala Gly Phe Pro His Cys Leu Thr Trp Leu Leu Met
180 185 190
Leu Thr Ser Gln Glu Leu Cys
195

<210> 31134
<211> 254
<212> PRT
<213> A.fumigatus

<400> 31134
Asp Ser Arg Ile Pro Ser Leu Ser Tyr Leu Val Ile Asp Ala Asp Phe
1 5 10 15
Ala Gly Thr Val Leu Asn Ala Trp Asn Glu Val Gln Ser Leu Phe Gly
20 25 30
Asp Pro Ile Gly Gln Asp Ser Ser Ser Pro Ile Ser Pro Lys Gln Cys
35 40 45
Leu Leu Val Val Asp Ser Gly Tyr Ser His Thr Thr Val Thr Pro Val
50 55 60
Tyr Lys Gly Gln Pro Ile Gln Arg Ala Ile Arg Arg Leu Asp Ile Gly
65 70 75 80
Gly Lys His Leu Thr Asn Tyr Leu Lys Glu Met Val Ser Met Arg Gln
85 90 95
Tyr Asn Met Val Asp Glu Thr Tyr Ile Met Asn Glu Val Lys Glu Ala
100 105 110
Val Cys Phe Val Ser Asn Asn Phe Ala Gly Asp Leu Glu Gln Thr Trp
115 120 125

```
Gln Gly Asn Arg Lys Arg Gly Leu Thr Asp Ala Ala Glu Gly Ile Thr
    130                 135                 140
Val Asp Tyr Val Leu Pro Asp Pro Asn Thr Gly Lys Lys Gly Phe Met
145                 150                 155                 160
Arg Pro His Asp Pro Leu Ser Asn Ala Lys Lys Arg Lys Ser Ile Leu
                165                 170                 175
Ser Gly Gly Asn Ala Glu Ala Leu Ser Glu Asp Val Leu Ile Leu Gly
            180                 185                 190
Asn Glu Arg Phe Thr Val Pro Glu Ile Leu Phe Thr Pro Ser Asp Ile
        195                 200                 205
Gly Met Lys Gln Ala Gly Ile Pro Asp Ile Ile Leu Gln Ser Leu Ser
    210                 215                 220
Val Leu Pro Thr Gly Leu His Pro Ser Phe Leu Ala Asn Val Leu Val
225                 230                 235                 240
Val Gly Gly Asn Thr Leu Ile Pro Gly Phe Leu Glu Arg Leu
                245                 250
```

<210> 31135
<211> 60
<212> PRT
<213> A.fumigatus

```
<400> 31135
Val Leu Ile Glu Tyr Asn Ile Ser Ala Gly Gly Ser Gln Gln Glu Phe
1               5                   10                  15
Glu Ser Thr Thr Thr Tyr His Met Leu Gln Met Arg Lys Pro Leu Arg
            20                  25                  30
Gln His Asn Ser Gln Arg Thr Val Thr Trp Met Gln Tyr Leu Thr Asp
        35                  40                  45
Asn Ser Thr Gln Ser Thr Thr Gln Lys Val Phe Arg
    50                  55                  60
```

<210> 31136
<211> 235
<212> PRT
<213> A.fumigatus

```
<400> 31136
Tyr Tyr Thr Arg Ser Gly Pro Thr His Thr Ala Val Thr Pro Leu Asp
1               5                   10                  15
Leu Val Lys Cys Arg Arg Gln Val Asp Pro Ser Ile Tyr Thr Ser Asn
            20                  25                  30
Leu Ser Ala Trp Arg Gln Ile Phe Ser Lys Glu Gly Leu Arg Gly Val
        35                  40                  45
Phe Phe Gly Trp Ser Pro Thr Phe Ile Gly Tyr Ser Phe Gln Gly Ala
    50                  55                  60
Gly Lys Tyr Gly Leu Tyr Glu Tyr Phe Lys Tyr Leu Tyr Gly Asp His
65                  70                  75                  80
Leu Phe Pro Ser Ile Asn Arg Thr Val Val Phe Leu Gly Ala Ser Ala
                85                  90                  95
Ser Ala Glu Phe Phe Ala Asp Met Ala Leu Cys Pro Phe Glu Ala Ile
            100                 105                 110
Lys Val Arg Met Gln Thr Thr Leu Pro Pro Tyr Ala His Asn Leu Arg
        115                 120                 125
Glu Gly Trp Ser Lys Val Val Ala Lys Glu Gly Phe Gly Gly Leu Tyr
    130                 135                 140
```

```
Lys Gly Leu Tyr Pro Leu Trp Ala Arg Gln Ile Pro Tyr Thr Met Thr
145                 150                 155                 160
Lys Phe Ala Thr Phe Glu Glu Ser Val Asn Met Ile Tyr Arg Thr Leu
                165                 170                 175
Gly Lys Pro Lys Glu Ser Phe Asn Ala Leu Gln Gln Thr Gly Val Ser
            180                 185                 190
Phe Leu Gly Gly Tyr Ile Ala Gly Val Phe Cys Ala Val Val Ser His
        195                 200                 205
Pro Ala Asp Val Met Val Ser Lys Leu Asn Ala Asp Arg Asn Gly Ser
    210                 215                 220
Cys Ala Phe Leu Gly Ser Arg Leu Ser Phe Cys
225                 230                 235
```

<210> 31137
<211> 64
<212> PRT
<213> A.fumigatus

<400> 31137

```
Met Pro Ile Gly Met Val Arg Val Arg Phe Ser Glu Ala Val Cys Arg
1               5                   10                  15
Ser Ala Asn Arg Leu Ala Ala Gly Glu Ser Ala Met Ala Ala Val Ser
            20                  25                  30
Arg Ile Tyr Gly Lys Ile Gly Phe Ser Gly Leu Trp Asn Gly Leu Pro
        35                  40                  45
Val Arg Ile Val Met Leu Gly Thr Leu Thr Gly Phe Gln Trp Leu Met
    50                  55                  60
```

<210> 31138
<211> 193
<212> PRT
<213> A.fumigatus

<400> 31138

```
Glu Val Met Pro Ser Pro Arg Val Arg Thr Phe Thr Leu Phe Ile Leu
1               5                   10                  15
Asn Ala Ser Trp Gln Thr Ser Ile His Arg Thr Arg Ala Cys Thr Ala
            20                  25                  30
Ser Phe Ser Thr Thr Thr Ser Ala Leu Tyr Ala Ala Ser Arg Glu Pro
        35                  40                  45
Thr Leu Tyr Glu Ile Leu Asp Val Pro Val Thr Ala Ser Ala Ala Glu
    50                  55                  60
Ile Lys Lys Tyr Asp Asn Trp Pro Arg Pro Thr Leu Arg Pro Ser Pro
65                  70                  75                  80
Pro His Leu Pro Tyr Phe Ser Thr Leu Cys Thr Ala Asn Val Thr Arg
                85                  90                  95
Ile Ile Arg Lys Phe Tyr Ser Leu Ser Leu His His His Pro Asp Arg
            100                 105                 110
Ile Pro Gly Asp Pro Lys Ala Ser Ser Arg Phe Ala Arg Ile Ser Ser
        115                 120                 125
Ala Tyr His Val Leu Ser Asn Ser Ala Lys Arg Ser Ala Tyr Asp Arg
    130                 135                 140
Glu His Gly Ile Tyr Ala Gln His Gly Ser Ser Thr His Ser Asn Ala
145                 150                 155                 160
Asn Pro Ser Gln His Pro Met Gly Ser His Ser Asn Phe Arg Ala Asn
                165                 170                 175
```

Leu His Thr Lys Gly Ala Phe Tyr Ala Gly Ser Arg Asn Ala Lys Gly
180 185 190
Leu

<210> 31139
<211> 309
<212> PRT
<213> A.fumigatus

<400> 31139
Ser Arg Leu Ile Arg Cys Ala Val Tyr Asn Ser Val Lys Ser Ala Tyr
1 5 10 15
Thr Asn Glu Thr Tyr Phe Phe Ala Thr Val Asn Gly Leu Asn Gly Asp
20 25 30
Ala Lys Ala Asn Ala Thr Val Ile Gly Gln Thr Glu Ala Gly Glu Ala
35 40 45
Glu Asp Asp Ser Asp Asp Glu Lys Glu Asp Gly Asn Thr Ala Pro Glu
50 55 60
Ala Gly Ala Gly Gly Gly Ala Tyr Leu His Val Trp Val Ile Phe Asp
65 70 75 80
Met Pro Val Ser Gln Ala Leu Gly Met Leu Ala Tyr Asn Ser Arg Ile
85 90 95
Pro Ala Ala Lys Lys Lys Lys Arg Lys Ser Lys Lys Lys Lys Lys Gly
100 105 110
Gly Ala Lys Val Gln Ser Ser Pro Pro Arg Val Pro Val Ser Asn Leu
115 120 125
Phe Pro Asn Asn Gln Tyr Pro Glu Gly Glu Ile Val Glu Tyr Lys Asn
130 135 140
Glu Asn Ser Tyr Arg Thr Thr Asn Glu Glu Lys Arg Tyr Leu Asp Arg
145 150 155 160
Met Asn Asn Asn Phe Leu Gln Glu Tyr Arg Gln Ala Ala Glu Val His
165 170 175
Arg Gln Val Arg Gln Tyr Ala Gln Lys Thr Ile Lys Pro Gly Gln Thr
180 185 190
Leu Thr Glu Ile Ala Glu Gly Ile Glu Asp Ala Val Arg Ala Leu Thr
195 200 205
Gly His Gln Gly Leu Glu Glu Gly Asp Asn Leu Lys Gly Gly Met Gly
210 215 220
Phe Pro Cys Gly Leu Ser Ile Asn His Cys Ala Ala His Tyr Thr Pro
225 230 235 240
Asn Ala Gly Asn Lys Met Val Leu Gln Gln Gly Asp Val Met Lys Val
245 250 255
Asp Phe Gly Ala His Ile Asn Gly Arg Ile Val Asp Ser Ala Phe Thr
260 265 270
Met Thr Phe Asp Pro Val Tyr Asp Pro Leu Leu Glu Ala Val Lys Asp
275 280 285
Ala Thr Asn Thr Gly Ile Arg Val Arg Gln Ser Pro Ser Phe Lys Leu
290 295 300
Ser Arg Ile Ser Tyr
305

<210> 31140
<211> 66
<212> PRT
<213> A.fumigatus

<400> 31140
Ala Arg Arg Asn Ile Ser Leu Glu Tyr Val Asn Thr Leu Pro Val Pro
1 5 10 15
Val Gln Ser Pro Leu Phe Tyr Ser Thr Asp Leu Ser Leu Gln Leu Asn
20 25 30
Asn Leu Val Ser Ser Gly Ile Val Gln Asp Tyr Pro Pro Leu Cys Asp
35 40 45
Val Lys Gly Ser Tyr Thr Ala Gln Phe Glu His Val Trp Glu Arg Leu
50 55 60
Thr Pro
65

<210> 31141
<211> 194
<212> PRT
<213> A.fumigatus

<400> 31141
Leu Leu Ile Leu Ser Thr Thr Leu Cys Trp Lys Pro Ser Arg Met Leu
1 5 10 15
Pro Thr Pro Val Phe Gly Phe Val Asn Pro Gln Ala Ser Ser Tyr Arg
20 25 30
Gly Phe His Thr Asp Asp Ser Leu Gln Glu Ala Gly Ile Asp Val Arg
35 40 45
Met Ser Asp Ile Gly Ala Ala Ile Gln Glu Ala Met Asp Ser Tyr Glu
50 55 60
Val Glu Leu Asn Gly Thr Met Tyr Pro Val Lys Cys Ile Arg Asn Leu
65 70 75 80
Asn Gly His Asn Ile Asp Arg His Ile Ile His Gly Gly Lys Ser Val
85 90 95
Pro Ile Val Lys Gly Ser Asp Gln Thr Lys Met Glu Glu Gly Glu Thr
100 105 110
Phe Ala Ile Glu Thr Phe Gly Ser Thr Gly Lys Gly Tyr Val Arg Glu
115 120 125
Asp Val Ser Ala Leu Arg Lys Thr Pro Leu Leu Ala Phe Gly Ile Cys
130 135 140
Leu Pro His Ile Phe Ser Ala Asp Gly Asn Val Pro Leu Cys Pro Asp
145 150 155 160
Pro Arg Cys Ala Phe Gly Pro Ser Gln Thr Leu Phe Cys Glu Glu Leu
165 170 175
Ala Gln Cys His Gln Gln Glu Phe Arg His Thr Ala Leu Leu Pro Ser
180 185 190
Val Ser

<210> 31142
<211> 92
<212> PRT
<213> A.fumigatus

<400> 31142
Val Leu Ser Gly Arg Arg Arg Cys Leu Arg Ser Glu Tyr Ala Tyr Pro
1 5 10 15
Ile Phe Phe Leu Gln Met Glu Thr Ser His Tyr Ala Leu Ile Pro Asp
20 25 30

```
Ala Pro Ser Val Pro Leu Arg Leu Ser Ser Ala Lys Asn Leu Leu Asn
        35                  40                  45
Val Ile Asn Lys Asn Phe Gly Thr Leu Pro Phe Cys Arg Arg Tyr Leu
    50                  55                  60
Asp Arg Leu Gly Gln Glu Lys Tyr Leu Leu Gly Val Arg Gln Tyr Ser
65                  70                  75                  80
Ala Gly Ser Gly Ala Ile Ser Ser Leu Leu Gln Tyr
                85                  90
```

<210> 31143
<211> 75
<212> PRT
<213> A.fumigatus

<400> 31143

```
Val Ala Phe Pro Ser Lys Leu Cys Tyr Pro Thr His Phe Ile Tyr Gln
1               5                   10                  15
Ala Ile Ser Ala Lys Asp Ala Ala Ser Leu Asp Lys Asp Leu Met Glu
            20                  25                  30
Met Gly Gly Trp Ser Leu Asp Gln Leu Met Glu Leu Ala Gly Leu Ser
        35                  40                  45
Val Ser Gln Ala Gly Met Trp Ser Ser His Gly Ala Leu Gln Ala Gln
    50                  55                  60
Asn Lys Asn Asn Gln Arg Leu Thr His Leu Arg
65                  70                  75
```

<210> 31144
<211> 149
<212> PRT
<213> A.fumigatus

<400> 31144

```
Leu Ser Gly Asn Gln Gln Arg Leu Lys Thr Gln Leu His Asn Leu Ser
1               5                   10                  15
Val Pro Phe Val Pro Asp Phe Thr Glu Ala Leu Lys Ser Ala Asp Phe
            20                  25                  30
Leu Val Asp Ala Ile Phe Gly Phe Ser Phe Gly Gly Pro Leu Arg Glu
        35                  40                  45
Pro Phe Pro Ser Ile Ile Ser Gln Ile Glu Ser Ser Ser Val Pro Val
    50                  55                  60
Leu Ser Val Asp Ala Pro Ser Ser Trp Asp Ile Gln Ser Gly Pro Pro
65                  70                  75                  80
Lys Glu Gly Pro Gly Ser Lys Phe Met Pro Lys Ala Leu Ile Ser Leu
                85                  90                  95
Thr Ala Pro Lys Pro Cys Val Lys Tyr Tyr Arg Gly Arg His Phe Val
            100                 105                 110
Gly Gly Arg Phe Leu Thr Lys Ser Ile Val Glu Lys Tyr Gly Leu Asn
        115                 120                 125
Cys Pro Asp Tyr Pro Gly Ile Asp Gln Ile Val Glu Val Gly Val Asp
    130                 135                 140
Ala Glu Gly Arg Leu
145
```

<210> 31145
<211> 100
<212> PRT

<213> A.fumigatus

<400> 31145
Arg Ser Ala Arg Asp Ser Lys Pro Leu Glu Val Ile Gly Thr Tyr Asn
1 5 10 15
Pro Ile Pro Gln Arg Pro Thr Asn Leu Ser Glu Glu Glu Ala Arg Arg
20 25 30
Ala Lys Pro Phe Lys Glu Val Ser Leu Asp Arg Ser Arg Ala Lys Tyr
35 40 45
Trp Leu Gly Val Gly Ala Gln Pro Ser Glu Ser Val Trp Arg Leu Leu
50 55 60
Asn Leu Val Arg Gly Gly Gln Ala Ser Glu Asn Arg Ser Ser Leu Leu
65 70 75 80
Thr Gly Thr Ser Met Leu Gly Trp Ser Cys Ser Thr Gln Val Leu Met
85 90 95
Ala Pro Lys Glu
100

<210> 31146
<211> 97
<212> PRT
<213> A.fumigatus

<400> 31146
Thr Ser Val Ser Ser Ala Ser Asn Lys Val Gln Cys Phe Asp Ser Ala
1 5 10 15
Leu Leu Ala Gly Tyr Glu Gly Gln Arg Phe Arg Ile Val Lys Met Val
20 25 30
Val Arg Ile Arg Leu Ser Arg Phe Gly Asn Arg His Gln Pro Phe Tyr
35 40 45
Asn Ile Val Val Ala His Ala Arg Tyr Ala Ser Phe Leu Leu Val Leu
50 55 60
Gln Phe Phe Phe Ser Leu Glu Leu Phe Tyr Cys Leu Pro Ser Ala Ser
65 70 75 80
Arg Leu Arg Leu Thr Asp Asn Arg Gln Pro Ser Asp Cys Leu Glu Lys
85 90 95
Cys

<210> 31147
<211> 155
<212> PRT
<213> A.fumigatus

<400> 31147
Thr Val His Leu Pro Thr Pro Arg Gly Ile Thr Ala His Ile Ala Asp
1 5 10 15
Arg Ala Asp Ser Ala Asp Ser Ala Ser Ser Glu Glu Pro Thr Arg Asp
20 25 30
Cys Asn Ala Gln Pro Pro Arg Asn Arg Val Tyr Val Pro Gly Pro Ala
35 40 45
Arg Asn Pro Arg Pro Ala His Gln Ala Pro Ser Gly Phe Pro Ala Arg
50 55 60
Leu Arg Arg His Arg Ala Leu Leu Arg Arg Ser Arg Leu Pro Gly Pro
65 70 75 80
Phe Gln Leu Gln Arg Leu Pro Pro Arg Arg Arg Ala Arg Gly Pro Pro

```
                85                  90                  95
Ala Val Arg Phe Pro Arg Pro Leu His His Leu Pro Ala Ala Leu Pro
            100                 105                 110
Leu Leu Arg Gly Ser Pro Arg Pro His Ala Asn Arg Ala Pro Pro His
        115                 120                 125
Arg Lys Ala Pro Gln Met Val Pro Asp Arg Pro His Pro Gln His Arg
    130                 135                 140
Pro His Pro Asp Pro Leu Gln Phe Pro Pro Val
145                 150                 155

<210> 31148
<211> 264
<212> PRT
<213> A.fumigatus

<400> 31148
Leu Leu Thr Phe Ser Glu Arg Ser Ile Tyr Leu Arg Arg Glu Gly Leu
1               5                   10                  15
Leu Arg Ile Leu Gln Thr Val Gln Thr Val Gln Thr Val His Leu Gln
            20                  25                  30
Lys Ser Gln Pro Gly Ile Ala Met Pro Asn Arg Leu Gly Ile Gly Ser
        35                  40                  45
Met Ser Leu Gly Arg Pro Gly Ile His Asp Leu Pro Thr Lys Leu His
    50                  55                  60
Gln Ala Ser Arg His Gly Tyr Glu Gly Ile Glu Leu Phe Phe Asp Asp
65                  70                  75                  80
Leu Asp Cys Leu Ala His Ser Ser Phe Asn Gly Cys His Leu Ala Ala
                85                  90                  95
Ala His Glu Val Arg Arg Leu Cys Asp Ser Leu Gly Leu Ser Ile Ile
            100                 105                 110
Cys Leu Gln Pro Phe Leu Phe Phe Glu Gly Leu Leu Asp Arg Thr Gln
        115                 120                 125
Thr Glu His Leu Leu Thr Glu Lys Leu Pro Lys Trp Phe Gln Ile Ala
    130                 135                 140
His Ile Leu Asn Thr Asp Leu Ile Gln Ile Pro Ser Asn Phe Leu Pro
145                 150                 155                 160
Ser Asp Pro Thr Thr Gly Ala Pro Arg Thr Thr Gly Asp Leu Asp Val
                165                 170                 175
Ile Val Ser Asp Leu Gln Arg Ile Ala Asp Leu Gly Ala Ala Gln Ser
            180                 185                 190
Pro Pro Phe Arg Phe Val Tyr Glu Ala Leu Ala Trp Gly Thr His Val
        195                 200                 205
Ser Thr Trp Glu Gln Ala Trp Ala Ala Val Ser Arg Ala Asn Arg Pro
    210                 215                 220
Asn Leu Gly Leu Cys Leu Asp Thr Phe Asn Leu Ala Gly Arg Val Tyr
225                 230                 235                 240
Ala Asp Pro Ala Ala Pro Ser Gly Lys Thr Pro His Ala Glu Ala Asp
                245                 250                 255
Leu Ala Ala Ser Leu Gln Arg Leu
            260

<210> 31149
<211> 219
<212> PRT
<213> A.fumigatus
```

<400> 31149
Glu Ser Gly Leu Cys Pro Trp Ala Gly Gln Glu Ser Thr Thr Cys Pro
1 5 10 15
Pro Ser Ser Ile Arg Leu Pro Gly Thr Ala Thr Lys Ala Ser Ser Ser
20 25 30
Ser Ser Thr Ile Ser Thr Ala Trp Pro Ile Pro Ala Ser Thr Ala Ala
35 40 45
Thr Ser Pro Pro Arg Thr Arg Ser Ala Gly Cys Ala Ile Pro Ser Ala
50 55 60
Ser Pro Ser Ser Ala Cys Ser Pro Ser Ser Ser Ser Arg Val Ser Ser
65 70 75 80
Thr Ala Arg Lys Pro Ser Thr Ser Ser Pro Lys Ser Ser Pro Asn Gly
85 90 95
Ser Arg Ser Pro Thr Ser Ser Thr Pro Thr Ser Ser Arg Ser Pro Pro
100 105 110
Ile Ser Ser Arg Leu Thr Gln Pro Pro Ala His Pro Ala Leu Pro Ala
115 120 125
Thr Trp Met Ser Ser Ser Pro Thr Ser Ser Ala Ser Gln Thr Ser Ala
130 135 140
Pro Pro Lys Ala Arg Leu Ser Ala Ser Ser Thr Arg Pro Ser His Gly
145 150 155 160
Ala Pro Thr Ser Pro Pro Gly Ser Lys Pro Gly Pro Arg Cys Arg Ala
165 170 175
Pro Thr Ala Pro Thr Ser Ala Ser Ala Ser Thr His Ser Thr Ser Arg
180 185 190
Ala Gly Cys Thr Arg Thr Gln Gln His Pro Pro Ala Lys His Pro Thr
195 200 205
Gln Arg Arg Ile Ser Pro Pro Arg Cys Ser Val
210 215

<210> 31150
<211> 195
<212> PRT
<213> A.fumigatus

<400> 31150
Glu Phe Leu Glu Tyr His Ala Pro Pro Asn His His Arg Trp Arg Arg
1 5 10 15
Pro His Arg Pro Ser Pro Arg Pro Ile Arg Pro Leu Gln Pro Ile His
20 25 30
Arg Ala Gly Gly Pro Arg Arg Pro Ser Gln Gln Arg Gly Pro Arg Arg
35 40 45
Leu Thr Ala Ala Asp Arg Thr Leu Pro Leu Cys Ser Arg His Ala Gly
50 55 60
Gly Asn Pro Gln Thr Arg Arg Arg His His Leu His Pro Lys Pro Leu
65 70 75 80
Pro Arg Pro Tyr Arg Asn Arg Ala Ala Leu Pro Arg His Pro Leu Pro
85 90 95
His Arg Glu Thr Pro Gln Arg Gln Arg Leu Ile Gly Pro Val Val Ala
100 105 110
Ser Leu Arg Pro Pro Pro Arg Lys Arg Pro Pro Asp Cys Pro Gly Trp
115 120 125
Pro Pro Pro Pro Leu Gln Pro Leu Cys Ser Gly Ser Pro Gly Asp Ser
130 135 140
Gly Ile Leu Thr Pro Ser Gly Thr Val Ile Arg Ser Pro Arg Pro Ser
145 150 155 160

Gly Pro Ser Tyr Lys Pro Gly Gly Leu Phe Ser Arg Pro Arg Thr Asp
165 170 175
Trp Gly Ser Cys Ser Val Pro Pro Gly Gly Val Asn Pro Pro Leu Thr
180 185 190
Phe Leu Pro
195

<210> 31151
<211> 112
<212> PRT
<213> A.fumigatus

<400> 31151
Gly Asn Ser Glu Lys Arg Glu Asn Ser Trp Asn Ile Met Pro Leu Arg
1 5 10 15
Ile Ile Ile Val Gly Ala Gly Leu Ile Gly Pro Arg His Ala Gln Ser
20 25 30
Val Leu Ser Asn Pro Ser Thr Glu Leu Val Ala Leu Val Asp Pro Ala
35 40 45
Ser Ser Gly Ala Arg Val Ala Ser Gln Leu Gln Thr Glu His Phe Pro
50 55 60
Ser Val Pro Ala Met Leu Ala Ala Ile Pro Lys Pro Asp Ala Ala Ile
65 70 75 80
Ile Cys Thr Pro Asn His Ser His Val Pro Ile Ala Thr Glu Leu Leu
85 90 95
Ser His Gly Ile His Phe Leu Thr Glu Lys Pro Leu Ser Asp Ser Val
100 105 110

<210> 31152
<211> 253
<212> PRT
<213> A.fumigatus

<400> 31152
Ala Leu Ala Leu Trp Ile Ala His Ser Thr Met Val Cys Arg Pro Ile
1 5 10 15
Ile Thr Arg Thr Leu Gln Thr Asn Asp Cys Ala Ala Tyr Asn Thr Phe
20 25 30
Val Ser Met Gln Thr Gly Glu Val Asn Arg Asn Ile Ser Arg Thr Asn
35 40 45
Asp Ala His Arg Gln Gly Asn Thr Ile Phe Val Gly Leu Gly Ala Ser
50 55 60
Asn Gln Asn Leu Lys Pro Tyr Gly Trp Ala Arg Ser Leu Thr Ser Ile
65 70 75 80
Gly Cys Phe Val Ile Gly Cys Phe Leu Phe Ala Arg Leu Asn Arg Leu
85 90 95
Leu Gly Pro Arg Arg Arg Val Thr Leu Val Leu Ser Phe Leu Leu Gln
100 105 110
Val Ala Met Leu Val Ile Thr Ala Ser Leu Val Gln Ser Gly Val Ile
115 120 125
Ala Gly Ile Pro Ser Asn Pro Ala Ser Ser Glu Thr His Trp Ser Gln
130 135 140
Glu Ala Pro Ile Val Leu Leu Ser Ile Gln Ser Ala Gly Gln Ile Val
145 150 155 160
Ala Ser Arg Ala Leu Gly Phe Asn Glu Ile Pro Thr Val Val Ile Thr
165 170 175

```
Ser Leu Leu Cys Asp Leu Val Ser Asp Pro Lys Leu Phe Leu Leu Arg
            180                 185                 190
Asn Glu Lys Arg Asp Arg Arg Met Val Ala Phe Val Leu Thr Leu Ile
        195                 200                 205
Gly Ala Ile Ala Gly Gly Trp Ile Thr Lys Ala Thr Arg Asp Ile Ser
    210                 215                 220
Pro Val Leu Trp Met Ala Ala Gly Leu Lys Phe Ile Ile Ser Val Ser
225                 230                 235                 240
Trp Ile Phe Trp Arg Glu Asn Glu Gly Ala Ser Ala Val
                245                 250
```

<210> 31153
<211> 78
<212> PRT
<213> A.fumigatus

```
<400> 31153
Arg Thr Lys Ser Val Ser Asp Arg Leu Ser Ser Trp Pro Gly Tyr Phe
1               5                   10                  15
Ile Cys Arg Glu Val His Glu Pro Met Val Lys Tyr Gly Pro Asp Ile
            20                  25                  30
His Cys Ser His Ile Gly Pro Thr Gly Gly Asp Tyr Cys Val Asp Asp
        35                  40                  45
Leu Ser Tyr Glu Gln Val Val Leu Glu Lys Tyr Phe Arg Asp Ser Phe
    50                  55                  60
Ile Ala Tyr Gly His Gly Gln Glu Gln Asn Ile Trp Val Ala
65                  70                  75
```

<210> 31154
<211> 156
<212> PRT
<213> A.fumigatus

```
<400> 31154
Val Arg Asp Cys Val Pro Gln Asp Pro Glu Arg Pro Thr Cys Tyr Tyr
1               5                   10                  15
Pro Asn Ile Val Leu Gln Pro Pro Gly Ser Leu Ser Gly Ser Thr Ile
            20                  25                  30
Leu Tyr Phe Pro Leu Phe Glu Ser Phe Thr Pro Ala Arg Gly Thr Leu
        35                  40                  45
Gly Met Lys Leu Leu Ile Met Leu Leu Lys Thr Trp Met Ile Tyr Thr
    50                  55                  60
Val Arg Asn Pro Lys Ala Pro Lys Ser Ala Thr Tyr Asn Ala Thr Lys
65                  70                  75                  80
Ser Leu Asn Asp Asp Arg Arg Trp Ala Ile Ala Arg Pro Asp Cys Arg
                85                  90                  95
Pro Thr Ser Ser Arg Ala Phe Ser Ser Tyr Glu Cys Val Glu Cys Arg
            100                 105                 110
Arg Met Ala Phe Ala Trp Pro Ala Asp Cys Met Leu Tyr His Ala Ser
        115                 120                 125
Tyr Asp Lys Gly Val Leu Ser Gln Val Phe Tyr Gly Glu Gly Ser Ser
    130                 135                 140
Ser Tyr Thr Ala Gly Met Glu Ser His Arg Ser Ala
145                 150                 155
```

<210> 31155

<211> 99
<212> PRT
<213> A.fumigatus

<400> 31155
His Asn Tyr Gln Ile Ile Ile Phe Ala Lys Leu Phe Glu Leu Val Asn
1 5 10 15
Glu Lys Gly Asp Asp Gly Ala Glu Thr Ala Ser Leu Val Pro Ser Gly
20 25 30
Leu Ala Lys Arg Arg Arg Arg Ile Cys Ala Ser Glu Gly Gly Phe Gly
35 40 45
Phe Gly Val Ile Arg Cys Thr Arg Arg Gly Gln Arg Pro Pro Trp Ile
50 55 60
Ala Gly Leu Ile Gly Arg Ala Ala His Leu Ser Gly Ser Ser Asn Asn
65 70 75 80
Glu Ser Glu Ile Val Phe Arg Lys Ile Gln Asn Gly Gln Leu Val Thr
85 90 95
Thr Gln Thr

<210> 31156
<211> 178
<212> PRT
<213> A.fumigatus

<400> 31156
Gly Ala Ala Pro Ser Ser Pro Val Val Lys Thr Val Ile Glu Glu Gln
1 5 10 15
Ala Arg Glu Leu Pro Arg Leu Pro Thr Asn Leu Asp Val Ser Glu Gln
20 25 30
Asp Arg Ile Leu Asn Ala Val Asn Asp Arg Leu Ser Gln Cys Ala Phe
35 40 45
Asp Phe Val Ala Lys Tyr Gln Phe Pro Ile Pro Leu Glu Ala Asp Lys
50 55 60
Arg Glu Val Arg Ile Pro Ser Asp Arg Glu Trp Thr Glu Trp Val Tyr
65 70 75 80
Leu Leu Lys Arg Leu Ala Thr Lys Arg Arg Ile Pro Ala Arg Val Leu
85 90 95
Tyr Asn Gly Gln Ile Lys Gln Leu Val Thr Val Leu Glu Asn Ser Leu
100 105 110
Glu Met Arg His Ala Ala Lys His Gln Ser Arg Pro Ile Lys Asp Asp
115 120 125
Arg Asn Val Leu Gln Leu Ile Ser Ala Gly Thr Gln Val Ala Lys Met
130 135 140
Leu Lys Asp Ala Ser Ala Met Glu Tyr Leu Asp Lys Leu Tyr Val Asp
145 150 155 160
Thr Glu Lys Arg Ile His Glu Arg Arg Ser Arg Arg Val Lys Phe Ala
165 170 175
Ser Pro

<210> 31157
<211> 72
<212> PRT
<213> A.fumigatus

<400> 31157
Glu Tyr Thr Leu His Asn Glu Ile Thr Asn Gly Ala His Asn Arg Gln
1 5 10 15
Lys Arg Cys Arg Glu Ala Gln Ala Ser Val Ala Phe Leu Trp Phe Ala
20 25 30
Trp Ala Gly Tyr Met Ala Ser Thr Ile Ile Ser Ile Leu Met Ala Arg
35 40 45
Ser Ala Thr Val Asp Leu Arg Ser Arg Thr Gly Arg Ala Pro Arg Val
50 55 60
Ala Arg Pro Ser Met Ala Gln Val
65 70

<210> 31158
<211> 101
<212> PRT
<213> A.fumigatus

<400> 31158
Gln Ala Ser Thr Met Gln Phe Val Phe Ser Leu Leu Val Met Ala Leu
1 5 10 15
Ile Gly Asn Ile Ile Ala Met Ala Phe Ala Gly Asn Pro Ala Thr Ile
20 25 30
Asn Tyr Ser Met Phe Thr Ala Thr Phe Ser Ile Ile Ser Leu Phe Tyr
35 40 45
Leu Val Pro Ala Ser Ile Asn Leu Asn Trp Ala Ile His Pro Ile Ile
50 55 60
Met Ile Val Leu Asp Val Leu Asn Asn Ile Phe Phe Leu Thr Cys Ala
65 70 75 80
Ile Ala Leu Ala Ala Arg Leu Glu Cys His Ser Cys Ser Asn Asp Val
85 90 95
Gly Leu Arg Arg Leu
100

<210> 31159
<211> 265
<212> PRT
<213> A.fumigatus

<400> 31159
Arg Gly Leu Ile Ser Ser Thr Thr Val Gly Pro Ser Ser Pro Val Val
1 5 10 15
Lys Thr Leu Thr Val Asp Pro Glu Lys Arg Tyr Ser Ile Lys Glu Phe
20 25 30
Leu Ala His Pro Trp Ile Arg Gln Thr Asp Glu Ala Thr Glu Ala Ala
35 40 45
Asp Asp Ala Pro Pro Leu Ala Thr Pro Leu Ala Ser Arg Gln Thr Lys
50 55 60
Gln Gln Pro Leu Asp Ala Gln Ala Ala Asp Gln Ala Pro Tyr Ala Pro
65 70 75 80
Val Ser Ala Arg Leu Leu Gly Pro Ala Ser Ala Gly Leu Asp Arg Pro
85 90 95
Met Asp Phe Arg Ser Pro Gly Ala Ile Asn Leu Arg Glu Val Phe Asp
100 105 110
Val Gly Tyr Ala Val His Arg Gln Glu Glu Glu Gly Lys Arg Arg Lys
115 120 125
Asn Phe Arg Gln Gly Tyr Arg Gly Ala Asn Pro Thr Thr Gly Phe Gln

```
    130                 135                 140
Ser Ala Leu Asn Pro Leu Asn Glu Asp Asn Asp Asp Asp Glu Glu Asp
145                 150                 155                 160
Asp Val Thr Leu Gln His Val Gln Asn Asp Ala Tyr Pro Pro Ala Lys
                165                 170                 175
Ile Pro Lys Ala Ser Gln Asp Ala Gly Asp Val Ala Ala Met Glu Ala
            180                 185                 190
Lys Leu Arg Ser Thr Asn Leu Gly Ala Pro Ser His Ala Ala Gln Ala
        195                 200                 205
Arg Gln Ala Pro Gln Ser Arg Gln Gln Gly Tyr Gly Thr His Ser Ala
    210                 215                 220
Asn Val Val Ala Ala Ala Lys Gln Ser Ile Asn Arg His Ser Arg Gln
225                 230                 235                 240
Pro Phe Glu Leu Ser Leu Ser Asn Ala Thr Leu Leu Glu Lys Arg Gly
                245                 250                 255
Arg Arg Gln Gln Gly Gln Ala Val Val
            260                 265
```

<210> 31160
<211> 702
<212> PRT
<213> A.fumigatus

<400> 31160

```
Leu Asp Leu Val His Val Val Arg Thr Cys Ser His Pro Val Cys Ser
1               5                   10                  15
His Arg Pro Ala His Gly Gln Ala Leu His Pro Arg Arg Arg Thr Ala
            20                  25                  30
Asp Arg Val Thr Arg His Ile Glu Ala Phe Ala Asp Arg Leu Asp Arg
        35                  40                  45
Phe Asn Gln Lys Gly Arg Thr Asp Asp Leu Gly Asn Tyr Gln Ala Ala
    50                  55                  60
Tyr Gln Leu Val Lys Ser Tyr Gln Val Leu Ala Gln Asp Ala Ile Gln
65                  70                  75                  80
Asp Ile Thr Lys Gln Asn Thr Leu Lys Arg Ala Lys Met Gly Trp Ser
                85                  90                  95
Thr Ser Arg Thr Asn Gly Thr Ala Ser His Asp Pro Lys Ile Glu Glu
            100                 105                 110
Glu Leu Gln Arg Leu Gln Leu Glu Ala Asn Thr Trp Gln Leu Leu Leu
        115                 120                 125
Asn Leu Ile Ser Ile Asp Asp Pro Pro Ser Lys Ala Ser Cys Lys Lys
    130                 135                 140
Ala Gln Glu Thr Val Phe Gln Lys Leu His Arg Tyr Ser Ser Asp Arg
145                 150                 155                 160
Glu Val Trp Glu Ser Phe Leu Ser Ala Asp His Tyr Ala Leu Glu Cys
                165                 170                 175
Val Ile Ile Met Lys Trp Leu Glu Arg Thr Ala Thr Thr Thr Pro Gln
            180                 185                 190
Asp Ile Asp Ser Leu Ile Ser Glu Leu Glu Ser Gln Ala Glu Arg Gly
        195                 200                 205
Gln Gly His Trp Thr His Gly Trp Leu Tyr Thr Lys Glu Thr Ile Lys
    210                 215                 220
Gly Gln Lys Arg Leu Arg Ala Trp Pro Gln Pro Leu Glu Pro Lys Asp
225                 230                 235                 240
Pro Gly Ile Thr Ala Ser Leu Leu Thr Ser Asp Val Ser Glu Pro Leu
                245                 250                 255
```

```
Ile Thr Gln Leu Asp Pro Asp Ala Val Thr Arg Gln Lys Gln His Leu
            260                 265                 270
Gln Lys Gln Asp Gln Phe Tyr Glu Arg Ala Thr Trp Met Thr Cys Trp
        275                 280                 285
Lys Met Leu Arg Gln Gly Glu Asn Trp Thr Lys Ile Arg Asp Trp Ala
    290                 295                 300
Glu Glu Arg Leu Glu Asn Trp Lys Ala Val Ser Leu Cys Gly Ser Ser
305                 310                 315                 320
Val Asp Pro Glu Ser Gly Gly Glu Arg Thr Pro Ala Asp Asp Gly Met
                325                 330                 335
Thr Arg Met Met Asn Phe Arg Ser Gln Glu Ser Trp Arg Ala Ala Gly
            340                 345                 350
Ser Ala Leu Ala Arg Asn Pro His Ile Glu Asp Phe Glu Arg Ala Val
        355                 360                 365
Tyr Ala Leu Leu Cys Gly Glu Thr Glu Ala Ala Leu Lys Val Cys Gln
    370                 375                 380
Ser Trp Asp Asp Tyr Leu Tyr Val His Phe Asn Ser Val Val Leu Ser
385                 390                 395                 400
Arg Tyr Gln Gly Phe Cys Lys Gln Phe Arg Arg Lys Leu Ser His Ser
                405                 410                 415
Pro Thr Ala Pro Val Asn Phe Val Pro Glu Pro Val Gly Tyr Ser Asp
            420                 425                 430
Phe Asn Lys Phe Val Gln Tyr Thr Lys Gly Asn Glu Arg Ile Gly Val
        435                 440                 445
Glu Ala Arg Asn Pro Tyr Arg Thr Ile Gln Ala Ala Ile Leu Gly Lys
    450                 455                 460
Gly Tyr Asp Thr Phe Phe Tyr Ser Leu Ala Lys Ala Val Ser Gln Val
465                 470                 475                 480
Ala Lys Thr Gly Ser Glu Asp Ser Phe Val Pro Asp Leu Ser Pro Thr
                485                 490                 495
His Val Asp Asp Ser Leu Leu Ile Ala Ala Glu Asp Asp Asp Ala Leu
            500                 505                 510
Arg Ile Ala Thr His Leu Tyr Ile Ile Ala Ser Ser Ile Gly Tyr Val
        515                 520                 525
Arg Ser Asp Thr Gln Phe Phe Glu Thr Ala Ser Val Asn Val Ile Gly
    530                 535                 540
Tyr Ile Ala Asn Leu Glu Asp Ala Gly Ile Tyr Glu Ala Ile Pro Leu
545                 550                 555                 560
Tyr Ala Ser Leu Leu Pro Ala Pro Gln Thr His Ser Val Leu Gly Arg
                565                 570                 575
Val Leu Ile Glu Ile Leu Asp Pro Arg Glu Arg Lys Gln Gln Val Arg
            580                 585                 590
Leu Ile Glu Lys Tyr Asp Ile Asn Ile Glu Ala Val Leu Glu Asp Gln
        595                 600                 605
Trp Asn Trp Ile Ser Ser Thr Val Ser Ala Val Glu His Thr Arg Thr
    610                 615                 620
Val Lys Arg Tyr Pro Lys Val Val Arg Arg Asp Asp Gly Thr Arg Glu
625                 630                 635                 640
Leu Val Pro Val Lys Thr Asp Phe Ile Gly Thr Glu Ile Ser Arg Ser
                645                 650                 655
Asp Glu Arg Leu Ile Arg Ser Leu Glu Trp Leu Arg Tyr Val Asp Gly
            660                 665                 670
Gln Trp Gly Arg Ile Cys His Leu Gly Ala Phe Leu Tyr Arg Lys Phe
        675                 680                 685
Tyr Cys Glu Ser Pro Leu Phe Cys Trp Leu Arg Gln Glu Tyr
    690                 695                 700
```

<210> 31161
<211> 70
<212> PRT
<213> A.fumigatus

<400> 31161
Ile Arg Tyr Leu Leu Ile Cys Leu Arg Ile Leu Phe Arg Tyr Ile Cys
1 5 10 15
Thr Ser Tyr Arg Met Ser Gln Gln Leu Gly His Asn Met Leu Tyr Ala
20 25 30
Val Ala Glu Asn Thr Leu Lys Ala Met Val Arg Asp Pro Ala Pro Arg
35 40 45
Val Lys Thr Ile Gln Met Ser His Ile Pro Lys Arg Val Ser Lys Asp
50 55 60
Leu Arg Arg Val Pro Leu
65 70

<210> 31162
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31162
Gln Tyr Arg Ser Leu Phe Ser Pro Asn Phe Ala Cys Ser Phe Gln Ser
1 5 10 15
Ile Phe Ala Ser Asn Phe Ile Tyr Asp Thr Ser Ser Leu Ser Ser Gln
20 25 30
Gln Ala Tyr Leu Pro Gly Thr Thr Cys Val Ala Asp Arg Thr Thr Val
35 40 45
Ser Ser Leu Leu Ala Asp Cys Val Thr Ile Arg Phe Pro
50 55 60

<210> 31163
<211> 390
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (9)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31163
Asp His Leu Asn Leu Asp Leu Asp Xaa Pro Phe Asp Asp Asp Gly Ala
1 5 10 15
Thr Ala Arg Ala Ile Gln Gln Gln Arg Arg Glu Glu Ala Asn Gln Arg
20 25 30
Glu Phe Arg Ala Trp Gln Arg Arg Phe Glu Val Ala Glu Arg Gln Gly
35 40 45
Gly Ser Asn Arg Phe Arg Asp Thr Ala Ala Leu Leu Asp Ile Glu Ala
50 55 60
Pro Arg Pro Ser Arg Pro Arg Val Pro Arg Glu Pro Thr Pro Glu Pro
65 70 75 80
Glu Ser Leu Glu Glu Met Arg Ala Trp Asn Ala Leu Glu Arg Ala Arg
85 90 95

```
Glu Ile Glu Asn Asn Pro Ser Ala Ala Arg Lys Arg Lys Glu Pro Thr
            100                 105                 110
Leu Ser Pro Ser Pro Glu Pro Thr Glu Pro Glu Arg Lys Leu Lys Arg
        115                 120                 125
Pro Arg Thr Arg Arg Pro Gln Glu Leu Ala Ala Leu Ala Leu Gln Asn
    130                 135                 140
Gly Glu Ser Ser Arg Ala Ala Ala Gln Ala Ser Ala Arg Ile Asn Glu
145                 150                 155                 160
Gly Ser Ser Glu Pro Ser Phe Leu Gln Ser Leu Leu Lys Glu Val Glu
                165                 170                 175
Glu Ala Ser Asn Pro Ser Gly Ser Asn Ser His Gly Pro Ser Ala Pro
            180                 185                 190
Val Ser Val Ala Pro Thr Asp His Ser Ser Ile Gly Pro Ser Ser Pro
        195                 200                 205
Pro Ile Ser Pro Ala Pro Ser Asn Gln Ser Ser Pro Arg Ile Ser Ser
    210                 215                 220
Thr Thr Pro Pro Pro Tyr Pro Arg Ser Arg Pro Ile Ser Pro Val Gln
225                 230                 235                 240
Leu Ala Ser Pro Thr Glu Gln Pro Ser Pro Pro Phe Ser Pro Ile Val
                245                 250                 255
Ser Pro Ser Gly Ser His Ser Asp Val Arg Glu Thr Thr Pro Ser His
            260                 265                 270
Val Gly Ser Ser Arg Pro Arg Ser Arg Ile Pro Arg Ala Ala Leu Arg
        275                 280                 285
Leu Thr Ala Arg Ser Asn Glu Ser Ser Pro Thr Arg Pro Asp Leu Ser
    290                 295                 300
Leu Thr Val Lys Ser Asp Ile Gln Lys Leu Val Gly Gly Ala Leu Lys
305                 310                 315                 320
Pro Tyr Tyr Arg Ser Lys Val Val Ser Lys Asp Gln Tyr Thr Asp Ile
                325                 330                 335
Asn Arg Thr Ile Ser Arg Met Leu Tyr Glu Arg Val Gly Asn Ala Gln
            340                 345                 350
Ser Leu Asp Ala Glu Thr Lys Asn Asn Phe Gly Lys Ile Ala Ala Glu
        355                 360                 365
Glu Val Lys Lys Ala Ile Asp Gly Leu Arg Ala Lys Asp Glu Asp Ser
    370                 375                 380
Leu Ala Asp Ser Ser Ser
385                 390
```

<210> 31164
<211> 235
<212> PRT
<213> A.fumigatus

```
<400> 31164
Phe His His Pro Arg Thr Thr His Glu Ser Glu Val Ser Trp Asp Gln
1               5                   10                  15
Leu Leu Gly Asp Tyr Cys Gln Val His Arg Ser Val Trp Thr Arg Ser
            20                  25                  30
Leu Pro Trp Thr Arg Trp Gly Trp Gln Leu Asn Phe Asp Asp Pro Gln
        35                  40                  45
Gln Tyr Thr Met Ala Lys Val Lys Ile Thr Thr Ile Pro Glu Ala Asp
    50                  55                  60
Val Ser Thr Asn Tyr Ser Val Gly Asp Ile Val Lys His Cys Tyr Asp
65                  70                  75                  80
Thr Gly Tyr Val Ser Glu Lys Pro Gly Lys His Thr Gly Ser Asn Gly
```

```
                85                  90                  95
Asn Asn Thr Ser Thr Met Ala Phe Ala Ala Gln Pro Thr Phe Val Val
            100                 105                 110
Lys Ala Glu Asn Gly Ile Gln Ile Thr Gly Asp Asp Ala Ile Val Thr
        115                 120                 125
Asp Asp Ala Phe Ala Thr Pro Glu Val Asp Phe Pro Thr Pro Glu Glu
    130                 135                 140
Thr Asp Gly Thr Gln Thr Pro Asn Pro Val Glu Ala Glu Pro Val Val
145                 150                 155                 160
Asn Asn His Pro Tyr Ala Phe Met Asp Val Pro Gly Val Pro Gly Gly
                165                 170                 175
Gln Gln Leu Glu Leu Glu Leu Phe Gln Gly Asn Asp Phe Asp Leu Asn
            180                 185                 190
Asn Met Gln Leu Pro Ile Ile Asp Ala Leu Pro Phe Asp Leu Ala Val
        195                 200                 205
Ala Asp Ala Phe Pro Leu Asn Tyr Asp Pro Leu Glu Glu Pro Pro Phe
    210                 215                 220
Gly Ala Phe Asp Ile Asp Gln Tyr Ile Asn Val
225                 230                 235
```

<210> 31165
<211> 619
<212> PRT
<213> A.fumigatus

<400> 31165

```
Met Arg Asp Pro Thr Gly Pro Asp Ile Tyr Glu Ser Ser Asp Leu Glu
1               5                   10                  15
Asp Leu Glu Pro Gln Pro Gly Ile His Thr Ser Ser Pro Pro Gly Asp
            20                  25                  30
Pro Leu Pro Arg Asn Ser Thr Gly Glu Gly Ser Asp Val Ser Glu Pro
        35                  40                  45
Ile Cys Met Asp Ile Ser Glu Ser Ser Asp Ser Gly Asp Pro Glu Pro
    50                  55                  60
Gln Pro Gly Val His Thr Ser Ser Ala Pro Arg Glu Pro Ser Pro Arg
65                  70                  75                  80
Thr Ser Ile Gly Glu Gly Cys Asp Val Ser Glu Arg Ala Thr Ile Asp
                85                  90                  95
Ile Ser Glu Ser Ser Asp Ser Gly Asp Pro Glu Pro Gln Pro Gly Ala
            100                 105                 110
His Thr Ser Ser Pro Pro Arg Glu Pro Ser Tyr Pro Thr Ser Thr Gly
        115                 120                 125
Glu Arg Ser Asp Val Asn Glu Pro Ile Arg Met Asp Ile Phe Glu Ser
    130                 135                 140
Ser Asp Ser Glu Asp Leu Gly Pro Gln Pro Gly Val Gln Ser Asp Val
145                 150                 155                 160
Gly Ile Lys Glu Arg Glu Arg Thr Glu Ser Asp Glu Asp Glu Leu Gly
                165                 170                 175
Arg Glu Glu Gln Lys Arg Arg Glu Arg Glu Pro Leu Leu Arg Gly Ala
            180                 185                 190
Glu Glu Gln Val Glu Asn Glu Arg Phe Glu Cys Lys Val Val Glu Thr
        195                 200                 205
Glu Gln Gly Leu Leu Val Arg Glu Glu Leu Ser Asp Gly Glu Arg Gln
    210                 215                 220
Arg Asp Asp Ala Lys Asp Asp Ala His Val Thr Gln Gln Glu Gly Asn
225                 230                 235                 240
```

```
Glu Arg Ala Thr Val Ala Lys Ala Leu Leu Ala Asp His Gln Gly Leu
                245                 250                 255
Arg Thr Glu Glu Asp Leu Met Val Pro Ala Ala Thr Ala Lys Glu Val
            260                 265                 270
Glu Glu Leu Leu Asn Glu Met Leu Gln Gly Lys Ser Gly Leu Arg Ala
        275                 280                 285
Ala Asn Glu Asp Ala Ser Val Pro Glu Glu Gln Val Ser Leu Glu Arg
    290                 295                 300
Ala Asp Ala Leu Ala Arg Leu Glu Ser Lys Ala Glu Ala Leu Thr Val
305                 310                 315                 320
Glu Leu Glu Asp Met Val Glu Gly Ser Asn Glu Ile Val Ser Ser Val
                325                 330                 335
Gly Gly Arg Leu Ser Pro Val His Ser Glu Gly Thr Thr Glu Thr Ala
            340                 345                 350
Gly Ala Ala Glu Leu Gly Pro Ser Arg Gln Val Gln Glu Arg His Val
        355                 360                 365
Ala Ser Leu Pro Gly Pro Glu Gln Ala His Lys Glu Ala Val Glu Arg
    370                 375                 380
Arg Ala Ala Glu Glu Ser Leu Phe Asp Gly Pro Leu Thr Glu Asp Gln
385                 390                 395                 400
Thr Ile Glu Glu Ala Gln Glu Asn Glu Pro Ile Gly Thr Ala Ala Val
                405                 410                 415
Pro Ser Lys Arg Lys Arg Ser Ser Ser Leu Arg His Glu Gln Asp Ala
            420                 425                 430
Gln Ile Arg Val Arg Glu Ile Lys Ala Val Arg Glu Ser Lys Arg Val
        435                 440                 445
Lys Gln Ser Gln Val Gly Glu Ser Gly Thr Pro Gly Ala Ser Gln Val
    450                 455                 460
Glu Leu Ala Phe Pro Leu Arg Ala Val Asn Leu Glu Glu Arg Val Ser
465                 470                 475                 480
Glu Gly Leu Glu Ser Thr Ala Ser Gly Pro Gly Ser His Glu Gln Pro
                485                 490                 495
Asp Asn Arg Pro Glu Val Pro Ala Pro Leu Ala Pro Glu Ser Arg Asp
            500                 505                 510
Gly Glu Leu Pro His Asp Val Pro Pro Gly Gln Arg Val Thr Leu Thr
        515                 520                 525
Phe His Ala Tyr Asp Ser Gly Arg Trp Thr Arg Thr Asp Thr Val Ser
    530                 535                 540
Val Ser Leu Asp Asn Pro Thr Glu Ala Gln Ile Ile Ala Asp Arg Tyr
545                 550                 555                 560
Ala Arg Asp Arg Ser Lys Asn Ala Arg Phe Tyr Asp Glu Gly Leu Arg
                565                 570                 575
Lys Val Ala Ala Asp Glu Cys Val Arg Ala Ala Ile Val Asp Gly Ser
            580                 585                 590
Phe Lys Ile Leu Met Ser Phe Gly Lys Asp Leu Val Val Thr Arg Phe
        595                 600                 605
Leu Val Ala Ser Val Lys Gln Leu Leu Gln Lys
    610                 615
```

<210> 31166
<211> 145
<212> PRT
<213> A.fumigatus

<400> 31166
Ser Ser Val Ser Gly Pro Ser Asn Ser Asp Ser Ser Ala Ala Arg Leu

```
1               5                   10                  15
Ser Thr Ala Ser Leu Trp Ala Cys Ser Gly Pro Gly Arg Asp Ala Thr
            20                  25                  30
Cys Leu Ser Trp Thr Cys Arg Glu Gly Pro Ser Ser Ala Ala Pro Ala
        35                  40                  45
Val Ser Val Val Pro Ser Leu Cys Thr Gly Leu Arg Arg Pro Pro Thr
    50                  55                  60
Glu Glu Thr Ile Ser Leu Leu Pro Ser Thr Ile Ser Ser Asn Ser Thr
65                  70                  75                  80
Val Arg Ala Ser Ala Leu Leu Ser Ser Arg Ala Arg Ala Ser Ala Leu
                85                  90                  95
Ser Arg Leu Thr Cys Ser Ser Gly Thr Leu Ala Ser Ser Leu Ala Ala
            100                 105                 110
Arg Asn Pro Asp Phe Pro Trp Ser Ile Ser Leu Arg Ser Ser Ser Thr
        115                 120                 125
Ser Phe Ala Val Ala Ala Gly Thr Ile Arg Ser Ser Ser Val Leu Ser
    130                 135                 140
Pro
145
```

<210> 31167
<211> 213
<212> PRT
<213> A.fumigatus

<400> 31167

```
Arg Ser Pro Ser Asp Ser Ser Ser Arg Thr Lys Ser Pro Cys Ser Val
1               5                   10                  15
Ser Thr Thr Leu His Ser Asn Arg Ser Phe Ser Thr Cys Ser Ser Ala
            20                  25                  30
Pro Leu Arg Arg Gly Ser Arg Ser Leu Leu Phe Cys Ser Ser Arg Pro
        35                  40                  45
Ser Ser Ser Ser Ser Asp Ser Val Arg Ser Arg Ser Phe Ile Pro Thr
    50                  55                  60
Ser Asp Cys Thr Pro Gly Cys Gly Pro Arg Ser Ser Glu Ser Glu Leu
65                  70                  75                  80
Ser Lys Met Ser Ile Arg Ile Gly Ser Phe Thr Ser Asp Leu Ser Pro
                85                  90                  95
Val Glu Val Gly Tyr Glu Gly Ser Leu Gly Gly Asp Asp Val Cys Ala
            100                 105                 110
Pro Gly Cys Gly Ser Gly Ser Pro Glu Ser Glu Leu Ser Glu Met Ser
        115                 120                 125
Ile Val Ala Arg Ser Leu Thr Ser His Pro Ser Pro Met Glu Val Arg
    130                 135                 140
Gly Glu Gly Ser Leu Gly Ala Asp Asp Val Cys Thr Pro Gly Cys Gly
145                 150                 155                 160
Ser Gly Ser Pro Glu Ser Glu Leu Ser Glu Met Ser Ile His Ile Gly
            165                 170                 175
Ser Leu Thr Ser Asp Pro Ser Pro Val Glu Phe Arg Gly Lys Gly Ser
        180                 185                 190
Pro Gly Gly Asp Asp Val Cys Ile Pro Gly Cys Gly Ser Arg Ser Ser
    195                 200                 205
Lys Ser Glu Leu Ser
210
```

<210> 31168

<211> 141
<212> PRT
<213> A.fumigatus

<400> 31168
Tyr Arg Ser Arg Ser Glu Tyr Lys Lys Arg Val Tyr Pro Leu Gly Asn
1 5 10 15
Val His Ser Thr Thr Ser Leu Ile Leu Pro Ser Ser Lys Thr Ser His
20 25 30
Thr Cys Pro Arg Thr Thr Val Thr Met Lys Phe Leu Ala Ile Ala Thr
35 40 45
Leu Leu Ala Ser Ala Ser Ala Thr Ile Val Tyr Pro Tyr Thr Ser Ala
50 55 60
Ser Cys Ser Gly Ser Thr Val Gly Lys Ile Thr Ser Cys Gly Cys Thr
65 70 75 80
Asn Met Ser Gly Asn Tyr Lys Ile Lys Gly Ala Lys Leu Asp Phe Gln
85 90 95
Lys Ala Thr Ala Ser Phe Tyr Lys Gly Arg Asn Cys Glu Gly Val Arg
100 105 110
Ile Ser Lys Ala Ser Asp Gln Ser Cys Val Lys Leu Pro Val Gly Trp
115 120 125
Glu Ser Phe Gly Ser Val Arg Ile His Gly Gly Thr Cys
130 135 140

<210> 31169
<211> 184
<212> PRT
<213> A.fumigatus

<400> 31169
Pro Arg Pro His Arg Ala Val Ile Leu Leu Leu Gly Leu Ser Ala Ile
1 5 10 15
Ser Trp Tyr Thr Gly Tyr Ile Met Gly Gln Phe Lys Leu Arg Phe Pro
20 25 30
Gln Ile His Ser Met Gly Asp Ala Gly Glu Leu Leu Met Gly Arg Phe
35 40 45
Gly Arg Glu Leu Phe Gly Ile Gly Gln Leu Leu Phe Leu Ile Phe Leu
50 55 60
Met Ala Ser His Ile Leu Thr Phe Ser Val Val Phe Asn Thr Ile Thr
65 70 75 80
Asn His Gly Thr Cys Thr Ile Val Phe Gly Val Val Gly Leu Val Val
85 90 95
Ser Phe Ile Gly Ala Leu Pro Arg Thr Met Gly Lys Val Tyr Trp Met
100 105 110
Ser Met Ala Cys Thr Tyr Pro Phe Ser Ala Ile Asp Ser Gln Pro Thr
115 120 125
Asp Asn Cys Thr Ala Cys Ile Ser Ile Val Thr Ala Thr Val Val Thr
130 135 140
Met Ile Ala Ile Gly Val Gln Ala Pro Asp His Val His Val Asn Val
145 150 155 160
Thr Thr Lys Val Ser Phe Gln Asp Ala Phe Leu Ala Val Thr Asn Ile
165 170 175
Ile Phe Ala Tyr Ser Thr Arg Phe
180

<210> 31170

<211> 157
<212> PRT
<213> A.fumigatus

<400> 31170
Leu Leu Phe Ile Ser Phe Pro Val Ala Asn Ser Ala Leu Val Ala His
1 5 10 15
Val Ala Phe Phe Gly Phe Ile Ser Glu Met His Asp Pro Arg Asp Phe
20 25 30
Pro Lys Ser Leu Thr Met Leu Gln Val Val Asp Thr Ser Leu Tyr Ile
35 40 45
Val Thr Ala Met Val Ile Tyr Arg Tyr Ala Gly Pro Asp Val Ala Ser
50 55 60
Pro Ala Leu Ser Ser Ala Gly Pro Leu Met Lys Lys Val Ala Tyr Gly
65 70 75 80
Leu Ala Ile Pro Thr Val Val Ile Ala Gly Val Val Phe Gly His Val
85 90 95
Ala Cys Lys Tyr Ile Tyr Val Arg Ile Phe Arg Gly Ser Ala His Met
100 105 110
His Gln Asn Ser Phe Leu Ala Ile Gly Ser Trp Val Ala Ile Ala Leu
115 120 125
Gly Val Trp Val Val Ala Trp Val Ile Ala Glu Ser Ile Pro Val Phe
130 135 140
Asn Glu Leu Leu Ser Leu Ile Val Trp Ser Ile Leu Leu
145 150 155

<210> 31171
<211> 130
<212> PRT
<213> A.fumigatus

<400> 31171
Leu Ala Ser Ser Pro Leu His Ile Ile Met Thr Asp Trp Ala Ala Lys
1 5 10 15
Val Lys Thr Ile Gly Leu Thr Gln Val Phe Cys Ser Lys Asp Lys Pro
20 25 30
Leu Val Asp Ile Val Phe Val His Gly Leu Asn Gly His Pro Tyr Asn
35 40 45
Thr Trp Ser Thr Lys Asp Pro Pro Val Phe Trp Pro Ala Asp Leu Leu
50 55 60
Pro Ser Leu Leu Glu Pro Cys Lys Val Arg Ile Leu Thr Tyr Gly Tyr
65 70 75 80
Asn Ala Asn Val Thr Ala Phe Thr Asp Gly Ala Ser Lys Asp His Ile
85 90 95
His Gln His Ala Glu Thr Leu Ala Ser Thr Leu Ala Ala Asn Arg Asn
100 105 110
Val Ser Tyr Val Tyr Ser Pro Leu Tyr Arg Asp Leu Ala Lys Thr Ala
115 120 125
Glu Leu
130

<210> 31172
<211> 219
<212> PRT
<213> A.fumigatus

<400> 31172
Leu Arg His Cys Pro Asp Arg Pro Ile Ile Phe Val Cys His Ser Leu
1 5 10 15
Gly Gly Leu Val Val Lys Arg Ala Arg Ile Asn Gly Lys Thr Phe Pro
20 25 30
Ile Lys Lys Met Asn Pro Phe Arg Ser Ile Leu Phe Pro His Tyr Gly
35 40 45
Ile Leu Ser Trp Gly Asp Pro Pro Arg Val Lys Ile Ser Lys Trp Gly
50 55 60
Val Leu Leu Gln Asn Ile Cys Ser Ala Val Leu Pro Lys Lys Phe Met
65 70 75 80
Glu Ser Ser Pro Gln Leu Ile Lys Ala Leu Arg Thr Asn Asn Glu Thr
85 90 95
Leu Gln Asn Ile Asn Ser Leu Phe Ala Asp Ile Met Gly Arg Phe His
100 105 110
Leu Tyr Phe Phe His Glu Thr Arg Ser Thr Asp Val Lys Gly Thr Arg
115 120 125
Glu Leu Ile Val Asp Glu Ser Ser Ala Ala Pro Tyr Phe Glu Gly Val
130 135 140
Glu Arg Met Gly Ile Glu Ala Asp His Ser His Met Cys Lys Phe Ala
145 150 155 160
Asp Glu Asp Ala Pro Gly Phe Glu Ala Val Ala Glu Ala Leu Leu Arg
165 170 175
Tyr Ser Arg Asp Ala Pro Leu Thr Ile Phe Asp Arg Trp Val Glu Glu
180 185 190
Glu Lys Thr Arg Leu Val Ile Arg Gln Thr Lys Ala Lys Glu Ile Phe
195 200 205
Asn Asn Gly Arg Ser Val Met Cys Asn Lys Pro
210 215

<210> 31173
<211> 564
<212> PRT
<213> A.fumigatus

<400> 31173
His Asp Ile Phe Leu Phe Ser Arg Val Gln Ser Phe His Ile Ala Met
1 5 10 15
Ala Gly His Ala Thr Ala Pro Ala Glu Pro Ser Gln Ala Asn Gly Ser
20 25 30
Thr Gly Leu Asp Pro Ser Thr Thr Asn Pro Tyr Glu Thr Asn Pro Glu
35 40 45
Leu Ile Pro Pro Thr Asp Pro Phe Leu Ser Arg Ser Arg Gln Tyr Gly
50 55 60
Arg Tyr Ala Pro His Val Asp Asp Phe Lys Pro Arg Tyr Asp Gly Trp
65 70 75 80
Tyr Gln Ala Glu Pro Asp Ala Ile Ser Tyr Trp Glu Glu Ile Val Arg
85 90 95
Thr Phe Cys Thr Pro Gln Asn Ser Leu Asn Val Pro Gly Thr Arg Glu
100 105 110
Val Tyr Ala Ala Gly Ser Val Leu Ile Lys Ile Asp Gln Glu Pro Ala
115 120 125
Ala Gly Ala Ala Ala Glu Arg Tyr Ser Asn Val Asn Thr Asn Glu Leu
130 135 140
Ser Ala Ala Arg Arg Ala Gln Asp Ala Leu Gln Glu Leu Gly Val Ala
145 150 155 160

```
Ile Pro Ile Ile Tyr Phe Cys Gly Thr Val Asp Gly Lys Asn Val Thr
                165                 170                 175
Val Glu Ser Arg Ile Pro Gly Val Ser Leu Glu Val Ala Trp Lys Tyr
            180                 185                 190
Leu Thr Ile Glu Gln Ile Gly Ala Phe Lys Gln Gln Cys Arg Arg Val
        195                 200                 205
Ile Gln Arg Leu Ala Leu Val Glu Pro Ala Pro Asp Ser Ala Ser Tyr
    210                 215                 220
Val Cys Gly Glu Leu Asn Ser Gln Ser Pro Pro Gly Val Glu Asp Ser
225                 230                 235                 240
Glu Arg Asp Ile Leu Phe Gln Gly Arg Lys Gly Thr Glu Gln Leu His
                245                 250                 255
Leu Val His Asn Asp Met Ile Arg Ser Asn Ile Val Val Lys Asp Gly
            260                 265                 270
Arg Ile Val Gly Ile Leu Gly Trp Arg Gln Cys Gly Phe Phe Gly Phe
        275                 280                 285
Glu Arg Ala Lys Gln Ile His Arg Gln Phe Arg Ile Pro Glu Arg Pro
    290                 295                 300
Val Ile Asp Asn Gly Gly Val Asn Val Thr Gln Val Trp Ala Asp Leu
305                 310                 315                 320
Tyr Asp Asp Ile Pro Asp Val Gly Gly Thr Asn Gly Phe Pro Asp His
                325                 330                 335
Gln Thr Pro Val Ala Pro Glu Val Lys Ile Glu Pro Leu Gln Pro Ser
            340                 345                 350
Leu Asp Lys Tyr Pro Pro Ser Asn Glu Ala Glu Thr Leu Pro Ala Leu
        355                 360                 365
Ala Gln Leu Asp Gly Thr Leu Leu Pro Glu Glu His Pro Thr Pro Arg
    370                 375                 380
Lys Val Ala Asp Leu Lys Ser Glu Leu Ala Ser Arg Ala Ser Ser Ala
385                 390                 395                 400
Asp Arg Ser Ser Pro Ser Gly Ser Thr Lys Ala Ala Gly Lys Arg Lys
                405                 410                 415
Pro Gly Pro Ser Ala Ser Lys Lys Gly Thr Ala Lys Lys Gln Ala Thr
            420                 425                 430
Lys Lys Arg Lys Ile Asp Glu Leu Ala Ser Glu Asp Ala Glu Asn Arg
        435                 440                 445
Arg Ser Asn Thr Pro Ser Ser Thr Arg Ala Ser Arg Thr Pro Gly Thr
    450                 455                 460
Lys Lys Gln Gly Ser Val Ser Val Ala Gly Ser Pro Ala Pro Glu Gly
465                 470                 475                 480
Thr Lys Arg Lys Lys Asn Ala Lys Lys Ala Lys Val Glu Lys Ala Glu
                485                 490                 495
Glu Glu Glu Glu Pro Glu Glu Asp Ser Ser Glu Asp Asp Gly Val Phe
            500                 505                 510
Cys Ile Cys Arg Lys Gly Asp Asp His Thr Trp Met Ile Ala Cys Asp
        515                 520                 525
Gly Gly Cys Asp Asp Trp Phe His Gly Lys Cys Ile Asn Ile Asp Pro
    530                 535                 540
Lys Asp Ala Asp Leu Ile Asp Lys Tyr Ile Cys Glu Ser Arg Leu Arg
545                 550                 555                 560
Gln Leu Val Leu
```

<210> 31174
<211> 325
<212> PRT

<213> A.fumigatus

<400> 31174

```
Cys Thr Ser Gly Pro Asn Cys Lys Ala Glu Gly Lys Gly Trp Thr Thr
1               5                  10                  15
Trp Lys Pro Met Cys Arg Leu Lys Gly Cys Arg Lys Pro Ala Arg Val
            20                  25                  30
Thr Gly Lys Asn Pro Ser Lys Tyr Cys Ser Asp Glu His Gly Arg Glu
        35                  40                  45
Phe Met Arg Gln Arg Val Gln Gln Leu Asn Arg Ser Pro Gly Asp Pro
    50                  55                  60
Ala Lys Lys Glu Trp Asp Glu Leu Gly Ser Arg Gly Gly Val Leu Thr
65                  70                  75                  80
Thr Gly Asp Leu His Ala Val Val Met Ala Val Ser Ser Ala Glu Glu
                85                  90                  95
Phe Arg Lys Leu Gly Glu Arg Ile Ile Ser Pro Pro Pro Glu Glu Glu
            100                 105                 110
Asp Pro Val Thr Gly Ala Arg Leu Ser Lys Lys Leu Gly Leu Asp Val
        115                 120                 125
Asp Pro Glu Gly Leu Thr Tyr Ser His Asp Glu Ala Ser Lys Leu Glu
    130                 135                 140
Gln Leu Arg Lys Gln Arg Glu Asp Leu Phe His Arg Arg Asp Val Leu
145                 150                 155                 160
Asn Ala Arg Ser Thr Phe Met Ala Leu Val Arg Gln Arg Ser Lys Ser
                165                 170                 175
Ile Val Glu Lys Leu Lys Gln Thr Asp Pro Lys Gly Gly Trp Lys Asp
            180                 185                 190
Ile Cys Gly Phe Asp Thr Arg Leu Ala Trp Ser Asp Glu Glu Phe Asn
        195                 200                 205
Glu Trp Arg Leu Ser Lys Leu Gly Ala Lys Ala Leu Glu Glu Gly Thr
    210                 215                 220
Pro Glu Ala Leu Ala Ser Ser Tyr Pro Asp Ala Val Asp Ala Asp Gly
225                 230                 235                 240
Asp Thr Ala Met Asn Gly Thr Lys Ala Glu Glu Glu Asp Glu Asp Glu
                245                 250                 255
Leu Ala Lys Leu Thr Arg Gly Val Cys Thr Lys Lys Arg Cys Glu Arg
            260                 265                 270
His Lys Gln Trp Val Lys Val His Gln Ser Glu Val Leu Phe Glu Glu
        275                 280                 285
Asn Lys Leu Lys Gln Asp Leu Ala Thr Cys Glu Lys Glu Ala His Asn
    290                 295                 300
Val Val Gln Arg Ala Val Leu Arg Met Trp Ala Glu Lys Asp Asn Ala
305                 310                 315                 320
Asp Asn Gly Thr Glu
                325
```

<210> 31175
<211> 239
<212> PRT
<213> A.fumigatus

<400> 31175

```
Leu Pro Gln Glu His Lys Ser Asn Leu Pro Arg His Leu Glu Tyr Ser
1               5                  10                  15
Leu Ser Leu Ser Cys Ile Ile Tyr Ile Tyr Ile Val Leu Val Ser Thr
            20                  25                  30
```

```
Ala Arg Met Ile Arg Ser Gln Pro Pro Leu Ser Leu Pro Val His Pro
        35                  40                  45
Leu Pro Arg Gly Gln Gly Leu Cys Val Leu Arg Arg Leu Leu Arg Val
    50                  55                  60
Gln Pro Ser Ser Pro Gln Phe Arg Asn Gln Gln Leu Asp His Ile Leu
65                  70                  75                  80
Lys Ser Pro Arg Arg Arg His Met Ala Asp Val Glu Pro Val Gln Ile
                85                  90                  95
Arg Leu His Asp Pro Pro Leu His Leu Val Arg His Arg Arg Arg Ala
            100                 105                 110
Ala Asn Arg His Gly Ala Gln Pro Thr Asp Arg Arg Leu Leu Arg His
        115                 120                 125
His Pro Arg Arg Pro Ala Arg Asp Val Leu Ala Arg Gly Arg Glu Arg
    130                 135                 140
Val Gln Asp Thr His Asp Pro Ala Arg Leu Cys Arg Val Gly Arg Arg
145                 150                 155                 160
Asp Leu Leu Val Gln Arg Asp Pro Arg Asp Val Asp Ala Cys Pro Ser
                165                 170                 175
Ala Glu Glu Asp Glu Pro Pro Asn His Gly Arg Val Phe Phe Gln Leu
            180                 185                 190
Leu Val Leu Gly Pro Gly Leu Leu Val Arg Ala Ala Gln Asp Gly Cys
        195                 200                 205
Glu Cys Arg Lys Asp Leu Asp Arg Pro Trp Ile Pro Pro Leu Leu Arg
    210                 215                 220
Ser Gln Leu Ala Asp Pro Val Asp Phe Gly Pro Gln His Arg Trp
225                 230                 235
```

<210> 31176
<211> 249
<212> PRT
<213> A.fumigatus

<400> 31176

```
Ser Ala Arg Ser Pro Arg Cys Pro Phe Pro Tyr Thr Leu Ser Arg Ala
1               5                   10                  15
Val Arg Ala Ser Ala Ser Cys Ala Gly Cys Ser Gly Tyr Ser Pro Arg
            20                  25                  30
Leu Leu Ser Ser Gly Thr Asn Ser Ser Thr Thr Ser Ser Lys Val Pro
        35                  40                  45
Gly Val Asp Thr Trp Pro Met Leu Asn Pro Ser Arg Ser Ala Ser Thr
    50                  55                  60
Ile His Arg Ser Ile Ser Ser Ala Thr Val Ala Ala Leu Pro Ile Ala
65                  70                  75                  80
Thr Gly Pro Ser Pro Pro Ile Asp Ala Phe Ser Ala Thr Thr Arg Gly
                85                  90                  95
Val Gln Arg Gly Met Ser Leu Leu Val Val Val Asn Ala Ser Arg Ile
            100                 105                 110
Leu Thr Ile Arg Pro Ala Ser Ala Glu Ser Ala Ala Val Ile Ser Trp
        115                 120                 125
Ser Ser Gly Ile Arg Glu Met Ser Met Pro Val His Pro Leu Lys Arg
    130                 135                 140
Thr Ser Pro Pro Thr Thr Asp Ala Tyr Phe Phe Ser Ser Ser Tyr Leu
145                 150                 155                 160
Ala Arg Ala Ser Ser Ser Val Arg Pro Arg Met Gly Val Asn Val Ala
                165                 170                 175
Lys Thr Leu Ile Asp Arg Gly Ser Arg Pro Phe Ser Ala Ala Ser Trp
```

```
            180                 185                 190
Arg Ile Arg Ser Thr Leu Gly Arg Ser Thr Asp Gly Glu Trp Leu Glu
        195                 200                 205
Thr Lys Ile Ala Ser Ala Cys Val Ala Ala Asn Ser Glu Pro Ala Ala
    210                 215                 220
Asp Val Pro Ala Trp Lys Arg Lys Gly Ser Ala Pro Glu Ile Phe His
225                 230                 235                 240
Gln Glu Arg Gln Asp Arg Asp Glu Leu
                245
```

<210> 31177
<211> 203
<212> PRT
<213> A.fumigatus

<400> 31177

```
Leu Ile Ala Val Leu Ala Leu Leu Val Lys Asn Leu Arg Ser Gly Pro
1               5                   10                  15
Leu Ser Leu Pro Gly Gly His Val Cys Ser Arg Leu Gly Val Cys Gly
            20                  25                  30
His Ala Arg Arg Gly Asp Leu Arg Leu Glu Pro Leu Thr Ile Gly Ala
        35                  40                  45
Ala Ala Gln Ser Arg Pro Asp Pro Pro Ala Gly Cys Gly Glu Gly Ala
    50                  55                  60
Gly Ser Thr Val Asp Gln Gly Leu Cys Asp Ile His Thr His Pro Gly
65                  70                  75                  80
Pro His Gly Arg Gly Gly Pro Gly Gln Val Arg Gly Ala Glu Lys Ile
                85                  90                  95
Arg Val Arg Gly Trp Gly Ala Arg Pro Leu Gln Arg Met Asp Arg His
            100                 105                 110
Arg His Leu Ala Asp Pro Ala Gly Pro Arg Asp His Gly Gly Arg Leu
        115                 120                 125
Gly Arg Gly Gly Pro Asp Arg Glu Tyr Pro Gly Arg Val His Asp His
    130                 135                 140
Glu Gln Gly His Pro Ala Leu Asp Ala Ala Gly Gly Gly Gly Glu Gly
145                 150                 155                 160
Val Tyr Arg Trp Ala Gly Pro Arg Gly Asp Trp Gln Arg Gly Asp Gly
                165                 170                 175
Gly Gly Arg Asp Gly Ala Val Asp Arg Gly Gly Gly Ser Gly Arg Val
            180                 185                 190
Gln His Arg Pro Cys Val Asp Ala Gly Asp Phe
        195                 200
```

<210> 31178
<211> 254
<212> PRT
<213> A.fumigatus

<400> 31178

```
Lys Ile Ser Gly Ala Asp Pro Phe Leu Phe Gln Ala Gly Thr Ser Ala
1               5                   10                  15
Ala Gly Ser Glu Phe Ala Ala Thr His Ala Glu Ala Ile Phe Val Ser
            20                  25                  30
Ser His Ser Pro Ser Val Leu Arg Pro Lys Val Asp Arg Ile Arg Gln
        35                  40                  45
Leu Ala Ala Glu Lys Gly Arg Asp Pro Arg Ser Ile Lys Val Phe Ala
```

```
    50                  55                  60
Thr Phe Thr Pro Ile Leu Gly Arg Thr Asp Glu Glu Ala Arg Ala Lys
65                  70                  75                  80
Tyr Glu Glu Leu Lys Lys Tyr Ala Ser Val Val Gly Gly Leu Val Leu
                85                  90                  95
Phe Ser Gly Trp Thr Gly Ile Asp Ile Ser Arg Ile Pro Leu Asp Gln
            100                 105                 110
Glu Ile Thr Ala Ala Asp Ser Ala Glu Ala Gly Arg Ile Val Ser Ile
        115                 120                 125
Leu Asp Ala Phe Thr Thr Thr Ser Lys Asp Ile Pro Arg Trp Thr Pro
    130                 135                 140
Arg Val Val Ala Glu Lys Ala Ser Ile Gly Gly Leu Gly Pro Val Ala
145                 150                 155                 160
Ile Gly Ser Ala Ala Thr Val Ala Asp Glu Met Glu Arg Trp Ile Val
                165                 170                 175
Glu Ala Asp Leu Asp Gly Phe Asn Ile Gly His Val Ser Thr Pro Gly
            180                 185                 190
Thr Phe Glu Asp Val Val Glu Leu Leu Val Pro Glu Leu Arg Arg Arg
        195                 200                 205
Gly Leu Tyr Pro Glu Gln Pro Ala Gln Asp Ala Glu Ala Leu Thr Ala
    210                 215                 220
Arg Glu Arg Val Tyr Gly Lys Gly Gln Arg Gly Leu Arg Ala Asp His
225                 230                 235                 240
Pro Gly Ser Arg Tyr Lys Tyr Asp Val Tyr Val Asp Asp Ala
                245                 250
```

<210> 31179
<211> 290
<212> PRT
<213> A.fumigatus

<400> 31179

```
Leu Thr Asn Leu Leu Met Ser Gly Leu Ile Gly Pro Val Glu Ile Gln
1               5                   10                  15
Leu Pro Ala Glu Gly Glu Gly Asn Lys Ile Ser Val Ser Asn Val Ser
            20                  25                  30
Glu Glu Tyr Leu Gln Met Ala Arg His Pro Ala Tyr Lys Asn Ser Thr
        35                  40                  45
Leu Val Gln Lys Ser Ala Met Ala Ser Arg Leu Ile Val Thr Gly Ser
    50                  55                  60
Ser Tyr Ile Gly Asn Val Leu Thr Ser Gly Ala Glu Ser Phe Thr Lys
65                  70                  75                  80
Lys Thr Lys Pro Asn Pro Lys Pro Met Thr Phe Ser Glu Thr Thr His
                85                  90                  95
Ala Arg Phe Arg Lys Ile Gly Thr Leu Ser Gln Gly Ala Ala Glu Leu
            100                 105                 110
Ser Ala Lys Thr Val Gly Gln Val Gly Lys Val Ala Gln Asn Phe Gly
        115                 120                 125
Ala Ser Leu Thr Arg Arg Glu Gly Lys Gln Lys Gly Ile Asp Lys Tyr
    130                 135                 140
Gly Asn Ser Ser Asp Tyr Lys Pro Gly Ile Leu Asn Lys Ser Leu Ile
145                 150                 155                 160
Ala Phe Ser Thr Leu Ala Asp Gly Ile Glu Gln Gly Ala Arg Asn Val
                165                 170                 175
Leu Thr Ser Gly Ser Val Ala Ala Ser Thr Met Ile Ala His Arg Tyr
            180                 185                 190
```

```
Gly Ala Glu Ala Gly Ala Val Ala Ser Asn Val Thr Gly Gly Ile Lys
        195                 200                 205
Asn Val Gly Leu Val Tyr Ile Asp Ala Ser Gly Val Ser Arg Lys Ala
    210                 215                 220
Val Leu Lys Ser Val Ala Lys Gly Met Val Val Gly Arg Met Arg Asp
225                 230                 235                 240
Gly Lys Gln Val Val Val Gly Thr Gly Asp Gly Gly Glu Val Pro Pro
                245                 250                 255
Ser Val Gly Gly Pro Ser Gln Ser Leu Leu Gly Gly Arg Asp Pro Val
            260                 265                 270
Ala Arg Arg Pro Ser Pro Ser Pro Thr Pro Pro Pro Ala Tyr Gly Ala
        275                 280                 285
Ser Gly
    290
```

<210> 31180
<211> 66
<212> PRT
<213> A.fumigatus

```
<400> 31180
Thr Asn His Asn Pro Cys Gly Gly Ala His Cys Val Ser Val Val Ser
1               5                   10                  15
Val Asn Ile Ile Pro Arg Ser Ala Ala Thr Phe Cys Asn Pro Tyr Lys
            20                  25                  30
Met Ala Leu Phe Lys Ala Leu Ile Ser Gln Gln Pro Asn Ile Tyr Leu
        35                  40                  45
Asp Ile Met Leu Cys Met Thr Tyr Thr Ile His Ile Ser Asn Pro Ser
    50                  55                  60
Tyr Asn
65
```

<210> 31181
<211> 118
<212> PRT
<213> A.fumigatus

```
<400> 31181
Leu Pro Phe Leu Glu Leu Ala Thr His Val Trp Val Asn Ser Pro Ala
1               5                   10                  15
Met Gly Thr Phe Pro Gly Ser Gln Tyr Asp Leu Asn Thr Tyr Trp Gly
            20                  25                  30
Trp Gly Ala Pro Cys Gly Arg Tyr Leu Gly Ser Gln Gly Glu Cys Ser
        35                  40                  45
Asn Ile Leu Ser Arg Phe Cys Cys Ile Ser Thr Asp Ala Tyr Pro Arg
    50                  55                  60
Met Leu Phe Val Ser Pro Ser Gly Leu Glu Gln Ala Lys Arg Leu Ile
65                  70                  75                  80
Ser Ser Tyr Lys Gln Asn His Ile Pro Val Met Thr Pro Glu Leu Trp
                85                  90                  95
Arg Ala Lys Lys Val Val Asp Ser Thr Leu His Pro Gly Val Leu Val
            100                 105                 110
Val Phe Gly Cys Leu Ile
        115
```

<210> 31182

<211> 226
<212> PRT
<213> A.fumigatus

<400> 31182
Thr Thr Gly Thr Leu Leu Trp Gln Ile Ala Asn Gln Ser Leu Asn Val
1 5 10 15
Ala Ile Asn Asn Ala Asn Ala Asn Lys Ser Thr Pro Leu Ser Val Ser
20 25 30
Gln Met Ala Lys Ser Tyr Leu Met Ala Val Ser Ala Ser Cys Ser Val
35 40 45
Ala Leu Gly Leu Asn Ala Leu Val Pro Arg Leu Lys Asn Ile Ser Pro
50 55 60
Asn Thr Lys Leu Ile Leu Gly Arg Leu Val Pro Phe Ala Ala Val Ser
65 70 75 80
Ser Ala Ser Ala Leu Asn Val Phe Leu Met Arg Gly Glu Glu Ile Arg
85 90 95
Gln Gly Ile Asp Val Tyr Pro Val Leu Ser Glu Glu Glu Lys Lys Lys
100 105 110
Arg Glu Glu Thr Gly Glu Pro Val His Ser Leu Gly Lys Ser Lys Lys
115 120 125
Ala Ala Thr Ile Ala Val Gly Glu Thr Ala Ile Ser Arg Val Leu Asn
130 135 140
Ala Thr Pro Ile Met Val Val Pro Pro Leu Ile Leu Val Arg Leu Glu
145 150 155 160
Lys Thr Ala Trp Leu Lys Ala Arg Pro Arg Met Val Thr Pro Ile Asn
165 170 175
Leu Gly Leu Ile Leu Ala Thr Ser Leu Phe Ala Leu Pro Leu Ala Leu
180 185 190
Gly Ala Phe Pro Gln Arg Gln Ala Ile Ser Ala Gln Ser Leu Glu Glu
195 200 205
Glu Phe Trp Gly Arg Gly Gly Lys Asp Gly Gln Val Glu Phe Asn Arg
210 215 220
Gly Met
225

<210> 31183
<211> 160
<212> PRT
<213> A.fumigatus

<400> 31183
Cys Arg Arg Met Leu Leu Ser Asp Ile Ser Gln Val Ser Val Gly Tyr
1 5 10 15
Gln Leu Thr Phe His Lys Tyr Ser Arg Ala Pro Asn Pro Pro Arg Thr
20 25 30
Tyr Leu Ser Glu Thr Ala Asp Ser Thr Ala Ser Leu Val Asp Val Asp
35 40 45
Ser Pro His Val Val Ser Val Asp Ser Asp Phe Leu Asn Gln Glu Val
50 55 60
Lys Thr Thr Thr Gln Ala Asp Arg Leu Glu Arg Glu Ala Gln Glu Lys
65 70 75 80
Glu Glu Arg Lys Glu Gln Arg Lys Ala Glu Lys Ala Lys Ala Lys Ala
85 90 95
Ala Arg Ala Gly His Val Ala Lys Arg Asn Pro Val Ile Leu Gly Asn
100 105 110

```
Ala Val Leu Tyr Ala Leu Val Gly Ala Ala Leu Gly Tyr Gly Ala Tyr
        115                 120                 125
Arg Lys His Ala Glu Gly Lys Leu Ser Leu Lys Leu Val Gly Thr Trp
    130                 135                 140
Thr Gly Ile Val Gly Ala Phe Ser Thr Val Asp Tyr Phe Val Ser Lys
145                 150                 155                 160
```

<210> 31184
<211> 66
<212> PRT
<213> A.fumigatus

<400> 31184

```
His Pro Arg Thr Pro Ala Ile Gln Ser Arg Met Ala Thr Thr Thr Ser
1               5                   10                  15
Arg Ala Ala Phe Glu Ala Val Phe Pro Thr Leu Ala Glu Asp Leu Leu
            20                  25                  30
Ala His Ala Lys Lys Tyr Asn Leu Pro Glu Asn Ala Val Lys Trp Phe
        35                  40                  45
Glu Gln Val Ser Pro Gly Arg Arg Ala His Leu Arg Leu Ile Ser Glu
    50                  55                  60
Gln Pro
65
```

<210> 31185
<211> 313
<212> PRT
<213> A.fumigatus

<400> 31185

```
Pro Ile Leu Phe Gln Lys Val Leu Asp Val Asn Val Pro Gly Gly Lys
1               5                   10                  15
Leu Asn Arg Gly Leu Ser Val Pro Asp Thr Gly Ile Ala Leu Leu Gln
            20                  25                  30
Lys Pro Leu Thr Asp Glu Gln Phe Lys His Leu Ser Ile Leu Cys Trp
        35                  40                  45
Leu Thr Glu Leu Leu Gln Ala Phe Phe Leu Val Ser Asp Asp Met Met
    50                  55                  60
Asp Ser Ser Ile Thr Arg Arg Gly Gln Pro Cys Trp Tyr Arg His Pro
65                  70                  75                  80
Gly Val Gly Leu Ile Ala Ile Asn Asp Ala Phe Met Leu Glu Ser Gly
                85                  90                  95
Ile Tyr Val Ile Leu Lys Lys His Phe Arg Ser His Pro Ala Tyr Val
            100                 105                 110
Asp Phe Leu Glu Leu Phe His Glu Thr Thr Trp Gln Thr Glu Leu Gly
        115                 120                 125
Gln Leu Cys Asp Leu Ile Thr Ala Pro Glu Asp Lys Val Asp Leu Asp
    130                 135                 140
Asn Phe Ser Met Glu Lys Tyr Met Phe Ile Val Thr Tyr Lys Thr Ala
145                 150                 155                 160
Tyr Tyr Ser Phe Tyr Leu Pro Val Ala Leu Ala Leu Leu Tyr Leu Glu
                165                 170                 175
Leu Ala Thr Pro Glu Asn Leu Gln Gln Thr His Asp Ile Leu Ile Pro
            180                 185                 190
Leu Gly Gln Tyr Phe Gln Val Gln Asp Asp Tyr Leu Asp Ala Tyr Gly
        195                 200                 205
```

```
Asp Pro Ala Val Ile Gly Lys Ile Gly Thr Asp Ile Gln Asp Asn Lys
    210                 215                 220
Cys Ser Trp Leu Ile Asn Gln Ala Leu Gln Arg Cys Asn Thr Glu Gln
225                 230                 235                 240
Arg Lys Leu Leu Asp Thr Ala Tyr Gly Arg Lys Asp Ser Glu Leu Glu
                245                 250                 255
Ala Lys Val Lys Ala Leu Tyr Lys Glu Leu Asp Leu Glu Lys Val Tyr
            260                 265                 270
Lys Glu Tyr Glu Glu Lys Thr Val Gly Glu Ile Arg Ser Lys Ile Ala
        275                 280                 285
Ala Ile Asp Glu Ser Gln Gly Leu Lys Lys Glu Val Phe Glu Ala Phe
    290                 295                 300
Leu Gly Lys Ile Tyr Lys Arg Thr Lys
305                 310
```

<210> 31186
<211> 455
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (179)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31186

```
Tyr Trp Gln Asp Ile Arg Pro Asp Trp Tyr His Asn Met Ser Ser Val
1                 5                  10                  15
Met Glu Ala Gly Pro Val Val Arg Thr Asn Gln Leu Asp Phe Asp Glu
            20                  25                  30
Glu Val Ile Tyr Lys Ser Thr Gln Tyr Leu Tyr Asp His Val Arg His
        35                  40                  45
Arg Thr Asp Gln Pro Phe Cys Leu Thr Val Ser Met Thr His Pro His
    50                  55                  60
Asp Pro Tyr Ala Met Thr Lys Glu Phe Trp Asp Leu Tyr Glu Asp Val
65                  70                  75                  80
Asp Ile Pro Leu Pro Lys Thr Pro Ala Ile Pro Gln Asp Gln Gln Asp
                85                  90                  95
Pro His Ser Gln Arg Val Leu Lys Cys Ile Asp Leu Trp Gly Lys Glu
            100                 105                 110
Ile Pro Glu Glu Arg Ile Lys Ala Ala Arg Arg Ala Tyr Tyr Ala Ala
        115                 120                 125
Cys Thr Tyr Val Asp Thr Asn Val Gly Lys Leu Leu Lys Val Leu Glu
    130                 135                 140
Asn Cys Gly Leu Arg Asp Asp Thr Ile Val Val Phe Thr Gly Asp His
145                 150                 155                 160
Gly Asp Met Leu Gly Glu Arg Gly Leu Trp Tyr Lys Met Val Trp Tyr
                165                 170                 175
Glu Asn Xaa Ala Arg Leu Pro Met Ile Val His Ala Pro Asn Arg Phe
            180                 185                 190
Ala Pro Lys Arg Val Ser Glu Asn Val Ser Thr Met Asp Leu Leu Pro
        195                 200                 205
Thr Phe Ala Ala Met Ala Gly Ala Pro Leu Val Lys Glu Leu Pro Leu
    210                 215                 220
Asp Gly Val Ser Leu Met Pro Tyr Leu Thr Gly Glu Glu Gly Val Lys
225                 230                 235                 240
```

```
Thr Asp Thr Val Leu Gly Glu Tyr Met Ala Glu Gly Thr Gln Ser Pro
                245                 250                 255
Thr Val Met Ile Arg Arg Gly Arg Trp Lys Phe Val Tyr Ser Leu Ile
            260                 265                 270
Asp Pro Pro Met Leu Tyr Asp Leu Glu Asn Asp Pro Glu Glu Arg Val
        275                 280                 285
Asn Leu Val Ala Gly Leu Ala Val Pro Ser Gln Ser Leu Ala Val Lys
    290                 295                 300
Gly Ala Ala Val Asp Gln Val Lys Ser Thr Ala Leu Pro Thr Pro Ala
305                 310                 315                 320
Asp Thr Pro Ser Glu Thr Pro Arg Ala Ser Pro Val Pro Gln Arg Ala
                325                 330                 335
Asn Ser Ser Phe Pro Phe Pro Thr Pro Pro Arg Thr Pro Ser Pro Ala
            340                 345                 350
Lys Leu Pro Val Ala Val Pro Ala Thr Thr Asp Pro Ala Thr Leu Leu
        355                 360                 365
Ala His Phe Thr Glu Glu Val His Ala Arg Trp Asp Leu Lys Ala Ile
    370                 375                 380
Gln Glu Asp Val Leu Arg Ser Gln Arg Arg Arg Arg Leu Val Tyr Ser
385                 390                 395                 400
Ala Leu Ile Arg Gly Thr Pro Thr Ile Trp Asp Tyr Glu Pro Arg Ile
                405                 410                 415
Asp Pro Ser Thr Gln Tyr Val Arg Asn Gln Gly Lys Gly Ala Leu Asp
            420                 425                 430
Asp Val Glu Phe Ile Ser Arg Trp Pro Arg Val Leu Gln Gln Ala Ala
        435                 440                 445
Asn Ala Met Gly Ala Lys Val
    450                 455
```

<210> 31187
<211> 65
<212> PRT
<213> A.fumigatus

<400> 31187

```
Ser Val Ser Thr Pro Phe Leu Ser Ser Asp Cys Asp Asp Asn Asp Thr
1               5                   10                  15
Thr Met Ala Ala Lys Lys Pro Asn Ile Leu Tyr Ile Met Ala Asp Gln
            20                  25                  30
Met Ala Ala Pro Leu Leu Ala Phe His Asp Lys Asn Ser Pro Ile Lys
        35                  40                  45
Thr Pro Asn Leu Asp Arg Leu Ala Arg Glu Gly Val Val Phe Asp Ser
    50                  55                  60
Ala
65
```

<210> 31188
<211> 154
<212> PRT
<213> A.fumigatus

<400> 31188

```
Arg Thr Asn His Ser Pro Arg Gly Lys Cys Arg Trp Ser Val Ala Ala
1               5                   10                  15
His Ser His Glu Ala Gly Gln Val His Lys Ser Ala Phe Tyr Gln Pro
            20                  25                  30
```

```
Glu Gln Cys Asp Ser Leu Arg Gly Ala Asn Asn Gly His Met Trp Gly
        35                  40                  45
Cys Arg Arg Ala Ile Pro Lys Ala Trp Ser Tyr Ala Pro Ile Trp Asp
    50                  55                  60
Gly Asn Arg Thr Gly Pro Leu Glu Gln Thr Ala Arg Glu Pro Thr Val
65                  70                  75                  80
Gly Glu Met Ala Leu Cys Gly Ile Lys His His Thr Phe Pro Ser Gln
                85                  90                  95
Thr Val Gln Ile Gly Ser Phe Asp Arg Arg Val Phe Val Met Glu Gly
            100                 105                 110
Gln Lys Gly Ser Gly His Leu Val Arg His Asn Val Glu Asp Val Gly
        115                 120                 125
Leu Leu Ser Arg His Gly Gly Val Val Val Val Thr Val Thr Arg Lys
    130                 135                 140
Glu Arg Ser Arg Asp Arg Leu Asp Glu Thr
145                 150
```

<210> 31189
<211> 442
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (121)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31189

```
Leu Arg Trp Tyr Ser Lys Thr Arg Asn Gln Val His Pro Phe Leu Arg
1               5                   10                  15
Val Val Leu Glu Val Val Lys His Gly Trp Val Asp Gln Arg Ile Asp
            20                  25                  30
Lys Leu Pro Pro Ala Ala Thr Asp His Asp Ser Trp Arg Leu Arg Ala
        35                  40                  45
Leu Gly His Val Leu Ala Gln His Arg Val Gly Leu Asp Thr Leu Leu
    50                  55                  60
Ala Ser Glu Val Arg His Gln Arg His Thr Ile Gln Arg Lys Leu Leu
65                  70                  75                  80
Asp Gln Arg Gly Ser Ser His Cys Gly Lys Gly Arg Gln Gln Val His
                85                  90                  95
Gly Arg Asp Val Leu Arg Asn Ala Leu Arg Ser Lys Ala Val Arg Gly
            100                 105                 110
Met His Asp His Gly Gln Thr Cys Xaa Val Phe Val Pro Asp His Leu
        115                 120                 125
Val Pro Gln Ala Ser Leu Thr Gln His Val Ala Val Ile Ala Arg Glu
    130                 135                 140
Asn Asp Asp Gly Val Val Ala Gln Thr Thr Val Leu Gln His Leu Gln
145                 150                 155                 160
Gln Leu Pro Asp Ile Gly Val Asp Val Gly Ala Gly Gly Val Val Arg
                165                 170                 175
Ala Ala Arg Ser Phe Asp Ala Leu Leu Arg Tyr Leu Leu Ala Pro Gln
            180                 185                 190
Val Asn Ala Leu Glu Asp Pro Leu Arg Val Gly Ile Leu Leu Val Leu
        195                 200                 205
Gly Asn Gly Arg Arg Leu Trp Gln Arg Asn Val His Val Phe Val Gln
    210                 215                 220
```

```
Val Pro Glu Phe Leu Cys His Arg Val Arg Val Met Arg Met Gly His
225                 230                 235                 240
Arg His Cys Gln Ala Glu Gly Leu Val Gly Thr Val Ala Asp Met Ile
                245                 250                 255
Ile Lys Ile Leu Cys Arg Phe Val Asp Asp Phe Phe Val Lys Val Glu
            260                 265                 270
Leu Val Gly Ala His Asp Arg Thr Cys Leu His His Arg Arg His Val
        275                 280                 285
Val Ile Pro Val Gly Thr Asn Ile Leu Pro Ile Leu Val Leu Cys Val
    290                 295                 300
Leu Gln Ala Glu Arg Asn Ala Thr His Arg Leu Val Pro Ile Asp Gly
305                 310                 315                 320
Pro Thr Ile Val Pro Gly Val Asn Val Ala Gly Gln Ser Leu Leu Ile
                325                 330                 335
Ala Met Lys Leu Val Arg Ser Thr Lys Val His Phe Thr Ser Gln Ser
            340                 345                 350
Ser Val Ile Ala Phe Ala Ala Gln Ile Met Gly Ile Cys Gly Asp Val
        355                 360                 365
Gly Gly Gln Phe Arg Arg Leu Gly Pro Thr Arg Gln Phe Gly Thr Gly
    370                 375                 380
Thr Glu Arg Val Pro Leu Asn Lys Pro Arg Gly Asn Pro Gln Trp Gly
385                 390                 395                 400
Lys Trp Pro Tyr Ala Glu Ser Asn Thr Thr Pro Ser Arg Ala Arg Arg
                405                 410                 415
Ser Lys Leu Gly Val Leu Ile Gly Glu Phe Leu Ser Trp Lys Ala Arg
            420                 425                 430
Arg Gly Ala Ala Ile Trp Ser Ala Ile Met
        435                 440
```

<210> 31190
<211> 112
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (23),(41),(77)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31190

```
Asn Pro His Ile Cys Asp Leu Arg Thr Tyr Ala Ile Leu Ser Thr Arg
1               5                   10                  15
Gly Arg Val Leu Arg Thr Xaa Glu Val Asp Ala Glu Gly Asn Ala Thr
            20                  25                  30
Asp Ala Val Pro Asn Gly Glu Glu Xaa Asn Asp Asp Gly Val Asp Gly
        35                  40                  45
Glu Glu Ser Gln Asp Pro Ser Gly Ser Asn Asp Pro Lys Thr Ala Trp
    50                  55                  60
Val Met Ala Leu Tyr Gln Asp Asp Ala Gly Glu Glu Xaa Gln Cys Arg
65                  70                  75                  80
Arg Ser Ile Thr Ser Phe Gly Val Ser Glu Tyr Arg Ile Asn Asn Cys
                85                  90                  95
Phe Gly Thr Gly Gln Gln Tyr Asn Glu Ala Phe Glu Ala Glu Asn Ile
            100                 105                 110
```

<210> 31191

<211> 273
<212> PRT
<213> A.fumigatus

<400> 31191
Leu Thr Pro Ala Ile Leu Pro Ala Pro Cys Glu Asp Gly Pro Gln Ser
1 5 10 15
Leu Pro Thr Trp Arg Tyr Phe Ser Ser Cys Ala Pro Arg Thr Lys Ala
20 25 30
Val Val Lys Pro Thr Ala Pro Arg Asn Pro Pro Lys Pro Ser Gln Glu
35 40 45
Thr Leu Lys Phe Ala Gly Arg Arg Pro Glu Gly Leu Gly Lys Leu Glu
50 55 60
Arg Lys Val Ala Lys Glu Gly Asp Leu Leu Leu Phe Lys Ala Pro Ser
65 70 75 80
His Arg Phe Tyr Val Leu Gly Ala Tyr Gly Ile Ala Ala Phe Cys Leu
85 90 95
Ala Tyr Ser Val Tyr Asn Ser Ser Ile Val Phe Gly Asp Pro Val Val
100 105 110
Ala Leu Pro Met Trp Gln Lys Ser Leu Phe Gly Gly Ile Cys Val Met
115 120 125
Met Ser Val Met Gly Thr Val Phe Ile Val Lys Thr Ala Arg Leu Ile
130 135 140
Lys Ala Ile Asn Ala Ile His Leu Asn Gly Lys Thr Tyr Leu Arg Phe
145 150 155 160
Thr Val Arg Ser Met Ile Pro Phe Arg Lys Pro Tyr Arg Phe Asp Ala
165 170 175
Leu Pro Arg Gln Ile Ala Phe Ser Arg Arg Leu Val Val Ser Pro Glu
180 185 190
Ser Leu Lys Pro Gln Thr Thr Pro Asn Ala Gln Pro Ala Arg Val Ser
195 200 205
Ile Tyr Arg Ala Pro Leu Thr Lys Ile Ser Gln Val Phe Trp Lys Gly
210 215 220
Phe Arg Ser Val Arg Gln Leu Phe Thr Gln Glu Asp Ile Ile Leu Leu
225 230 235 240
Glu Val Glu Gly Gln Lys Gly Val Phe Arg Met Asp Ser Ala Gly Tyr
245 250 255
Ile Ser Glu Asp Phe Leu Val Ile Gly Asn Pro Val Ser Ile Arg Ser
260 265 270
Tyr

<210> 31192
<211> 92
<212> PRT
<213> A.fumigatus

<400> 31192
Val Asn Arg Arg Gly Arg Leu Cys Ser His Phe Glu Thr Ser Thr Leu
1 5 10 15
Leu Leu Gln Ser Trp Asp Ser Gly Cys Leu Ile Ala Arg Trp Gly Asn
20 25 30
Leu Phe Ala Leu Ser Phe Ser Val Arg Asp Asn Thr Ile Thr Arg Arg
35 40 45
Arg Ile Val Leu Thr Tyr Ser Leu Asp Phe Lys Ser Tyr Lys Gly His
50 55 60

```
His Val Leu Leu Phe Gly Asp Ala Tyr Phe Thr Ser Ile Ile Gly Pro
65                  70                  75                  80
Asn Gly Ser Gly Lys Ser Asn Ser Cys Val Ser Leu
                85                  90
```

<210> 31193
<211> 206
<212> PRT
<213> A.fumigatus

<400> 31193

```
Asn Lys Ser Lys Ser Gln Asp Ile Tyr Lys Trp His Thr Thr Asn Ala
1               5                   10                  15
Met Tyr Asn Pro Asn Pro Thr Thr Leu Lys Pro Gln Val Ser Asp Lys
            20                  25                  30
Thr Pro Asn Phe Ala Ser Pro Gln Arg Pro Ile Gly Ile Asn His Ser
        35                  40                  45
Met Gly Leu Thr Ser Ser Ala Thr Leu Asn Gly Ala Ser Val Leu Leu
    50                  55                  60
Arg Thr Ser Ser Thr Val Thr Pro Ser Ala Ser Ser Thr Asn Val Asn
65                  70                  75                  80
Pro Ser Val Lys Ser Thr Ser Lys Thr Gln Ser Ser Val Met Ile Arg
                85                  90                  95
Leu Thr Gln Val Leu Pro Val Arg Gly Asn Ser His Cys Leu Thr Ile
            100                 105                 110
Leu Gly Leu Pro Phe Leu Ser Val Cys Ser Ile Val Thr Thr Thr Leu
        115                 120                 125
Val Ala Glu Gly Leu Asp Thr Arg Ser Ile Ala Pro Pro Lys Pro Leu
    130                 135                 140
Ile Leu Pro Gly Ser Ile Pro Thr Ile Gln Ser Val Thr Ala His Asn
145                 150                 155                 160
Glu Gly Arg Lys Glu Thr His Ser Trp Pro Gly His His Gly Arg Ser
                165                 170                 175
Pro Ala Ser His Pro Glu Trp Ser Asp Arg Cys Val Gln Ser Gly Ser
            180                 185                 190
Tyr Gln Thr Thr His His Cys Arg Thr Gln Pro His Arg Gly
        195                 200                 205
```

<210> 31194
<211> 421
<212> PRT
<213> A.fumigatus

<400> 31194

```
Ser Tyr Arg Gly Ala Ser Leu Gln Tyr Ser Gln Ser Gln His Ile Thr
1               5                   10                  15
Arg Glu Glu Arg Arg Leu Thr Val Gly Gln Val Thr Thr Gly Ala His
            20                  25                  30
Leu His Arg Thr Gln Asn Gly Gln Ile Asp Ala Ser Arg Ala Asp His
        35                  40                  45
Thr Lys Arg Leu Ile Thr Ala Glu His Ser Arg Thr Gly Asp Glu Gly
    50                  55                  60
Asp Gly Leu Leu Ala Gly Ile Asp Gln Val Arg Val Leu Leu Ala Leu
65                  70                  75                  80
Leu Arg Val Arg Ala Gln Thr Glu Asp Thr Ile Leu Arg Leu Glu His
                85                  90                  95
```

```
His Phe His Arg Gly Val Asp Glu Val Gly Arg Gln His Gly His Ala
            100                 105                 110
Asn Thr Gln Val Ser Ile His Ala Val Leu Glu Phe Leu Gly Gly Thr
        115                 120                 125
Thr Asn Asp Thr Leu Pro Leu Arg Gly Arg Val Ala Leu Ala Gln Gly
    130                 135                 140
Gly Arg Val Val Pro Ile Leu Phe Gly Lys Gly Val Phe Leu Asp Val
145                 150                 155                 160
Leu Arg Arg Arg Ala Leu Asp His Thr Leu Asp Ile Asn Thr Arg Gln
                165                 170                 175
Val Asp Ser Ser Arg Leu Asp Leu Thr Arg Phe Asn Asp Val Leu Gly
            180                 185                 190
Leu Asp Asp Ser His Leu Gly Ile Ser Ala His Arg Thr Val Glu Val
        195                 200                 205
Gly Cys Gly Val Pro Glu Leu Ala Val Thr Gln Leu Ile Arg Phe Pro
    210                 215                 220
Cys Leu Asp Lys Gly Ile Val Thr Leu Asp Arg Leu Leu His His Ile
225                 230                 235                 240
Ala Leu Ala Val Glu Asp Leu Asp Val Ala Arg Leu Thr Val Leu Ser
                245                 250                 255
His Arg Ala Val Gly Val Met Leu Glu Arg Gln Leu Ala Gly Leu Asn
            260                 265                 270
Asp Arg Ser Thr Gly Arg Trp Gly Lys Glu Gly Arg Asp Ala Gly Ala
        275                 280                 285
Thr Gly Thr Thr Pro Leu Gly Gln Arg Ala Leu Trp Arg Gln Leu Gln
    290                 295                 300
Leu Asp Phe Ala Gly Gln Val His Pro Leu Glu Gly Leu Val Leu Ser
305                 310                 315                 320
Asn Ile Ala Gly Asn His Phe Leu Asp Leu Leu Arg Leu Glu Glu Gln
                325                 330                 335
Thr Gln Ala Ser Thr Ile Asp Ala Cys Val Ile Ala Asp Asn Gly Gln
            340                 345                 350
Ala Cys Asp Arg Gly Ile Gly Ala His Gly Ala Asp Gln Cys Val Gly
        355                 360                 365
Asn Thr Gly Gln Thr Glu Ser Ser Gly Lys Lys Arg Gly Val Gly Leu
    370                 375                 380
His Ile Leu Asp Gly Phe Leu Gly Arg Ser Tyr His Leu Val Asp Leu
385                 390                 395                 400
Ile Pro Ala His Ala Ala Arg Glu Cys Ser Cys Lys Glu Ser Leu Met
                405                 410                 415
Leu Glu Ser Ser Cys
            420
```

<210> 31195
<211> 119
<212> PRT
<213> A.fumigatus

<400> 31195

```
Val Ser Phe Leu Pro Ser Leu Cys Ala Val Thr Asp Cys Ile Val Gly
1               5                   10                  15
Met Leu Pro Gly Lys Ile Lys Gly Phe Gly Gly Ala Met Asp Leu Val
            20                  25                  30
Ser Asn Pro Ser Ala Thr Lys Val Val Val Thr Met Glu His Thr Asp
        35                  40                  45
Lys Lys Gly Asn Pro Lys Ile Val Lys Gln Cys Glu Phe Pro Leu Thr
```

```
    50                  55                  60
Gly Lys Thr Cys Val Ser Arg Ile Ile Thr Glu Leu Cys Val Phe Asp
65                  70                  75                  80
Val Asp Phe Thr Asp Gly Leu Thr Leu Val Glu Leu Ala Asp Gly Val
                85                  90                  95
Thr Val Glu Glu Val Arg Ser Lys Thr Asp Ala Pro Phe Lys Val Ala
            100                 105                 110
Asp Asp Val Lys Pro Met Leu
        115
```

<210> 31196
<211> 404
<212> PRT
<213> A.fumigatus

<400> 31196

```
His Gln Arg Phe Leu Ala Arg Ala Phe Ser Ser Ser Val Arg Arg Asn
1               5                   10                  15
Glu Ile Asn Lys Val Val Ala Ser Ala Glu Glu Ala Ile Lys Asp Met
            20                  25                  30
Lys Ser Asn Ser Thr Leu Leu Ala Gly Gly Phe Gly Leu Ser Gly Val
        35                  40                  45
Pro Asp Thr Leu Ile Gly Ala Val Arg Ala Asn Pro Ser Ile Thr Gly
    50                  55                  60
Leu Thr Val Val Ser Asn Asn Ala Gly Val Asp Gly Ala Gly Leu Gly
65                  70                  75                  80
Leu Leu Leu Gln Ser Lys Gln Ile Lys Lys Met Ile Ala Ser Tyr Val
                85                  90                  95
Gly Glu Asn Lys Thr Phe Glu Arg Met Tyr Leu Thr Gly Glu Ile Glu
            100                 105                 110
Leu Glu Leu Thr Pro Gln Gly Thr Leu Ala Glu Arg Cys Arg Ala Gly
        115                 120                 125
Gly Ala Gly Ile Pro Ala Phe Phe Thr Pro Ala Ala Cys Gly Thr Val
    130                 135                 140
Val Gln Thr Gly Glu Leu Pro Leu Lys His Asn Pro Asp Gly Thr Val
145                 150                 155                 160
Ala Gln Tyr Ser Gln Pro Arg Asp Val Lys Val Phe Asp Gly Lys Ser
                165                 170                 175
Tyr Val Met Glu Glu Ala Ile Lys Gly Asp Tyr Ala Phe Val Lys Ala
            180                 185                 190
Trp Lys Ala Asp Lys Leu Gly Asn Cys Gln Phe Arg Tyr Ala Ala Ala
        195                 200                 205
Asn Phe Asn Gly Ala Met Gly Arg Asn Ala Lys Met Thr Ile Val Glu
    210                 215                 220
Ala Glu His Ile Val Glu Pro Gly Glu Ile Glu Pro Ala Ala Ile His
225                 230                 235                 240
Leu Pro Gly Ile Tyr Val Lys Arg Val Val Gln Ser Thr Ala Pro Lys
                245                 250                 255
Asn Ile Glu Lys Tyr Thr Phe Ala Lys Glu Asp Gly Asp Asp Thr Ala
            260                 265                 270
Ala Leu Gly Lys Gly Asp Thr Ala Ala Lys Arg Glu Arg Ile Val Arg
        275                 280                 285
Arg Ala Ala Lys Glu Phe Lys Asn Gly Met Tyr Ala Asn Leu Gly Ile
    290                 295                 300
Gly Met Pro Met Leu Ala Pro Asn Phe Val Asp Pro Ser Val Glu Val
305                 310                 315                 320
```

```
Met Leu Gln Ser Glu Asn Gly Ile Leu Gly Leu Gly Pro Tyr Pro Lys
                325                 330                 335
Lys Gly Gln Glu Asp Ala Asp Leu Ile Asn Ala Gly Lys Glu Thr Val
            340                 345                 350
Thr Leu Ile Pro Gly Ala Ala Val Phe Gly Ser Asp Glu Ser Phe Gly
        355                 360                 365
Met Ile Arg Ser Gly Arg Ile Asp Leu Thr Ile Leu Gly Ala Met Gln
    370                 375                 380
Val Ser Ala Arg Gly Asp Leu Ala Asn Cys Glu Ser Pro Phe Phe Pro
385                 390                 395                 400
Arg Tyr Val Leu
```

<210> 31197
<211> 85
<212> PRT
<213> A.fumigatus

<400> 31197

```
Ile Ala Phe Ala Gln Glu Ser Glu Pro Asp Lys Thr Ala Met Ile Gln
1               5                   10                  15
Thr Pro Gly Phe Gly Gly Ser Pro Trp Lys Thr Trp Phe Ile Asp Asn
            20                  25                  30
Met Thr Ser Ser Gln Gln Ala Glu Gln Val Ala Val Ala Ile Leu Ser
        35                  40                  45
Arg Ala Pro Ser Ser Asn Thr Tyr Ser Met His Gly Lys Asp Asp Ile
    50                  55                  60
Met Val Glu Leu Val Cys Ile Gln Ala Leu Ser Ser Gly Gly Ala Ser
65                  70                  75                  80
Ser Ser Gln Asp Gly
                85
```

<210> 31198
<211> 174
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (96)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31198

```
Leu Ala Ser Leu Pro Tyr Ser Ser Tyr Tyr Tyr Leu Pro Ala Glu Pro
1               5                   10                  15
Thr Gln Gln Pro Gln Pro Val Ile Gln Asp Pro Val Leu His Thr Thr
            20                  25                  30
Phe Pro Tyr Asn Leu Thr Asn Pro Asn Thr Ile Pro Thr Glu Asn Asn
        35                  40                  45
Asp Pro Val Val Phe Gln Thr Pro Ser Lys Lys Leu Ser Asp Ser Gln
    50                  55                  60
Gln His Glu Leu Ile Gln Ala Val Val Ala Asn Val Thr Ser Ile Val
65                  70                  75                  80
Asn Gly Asn Ala Thr His Gly Ser Cys Asn Lys Cys Lys Ala Ala Xaa
                85                  90                  95
Ala Ala Thr Lys Pro Ala Ala Leu Tyr Ala Pro Thr Leu Val Pro Asp
```

```
            100                 105                 110
Thr Ile Ile Ser Leu Cys Lys Glu Phe Asn Phe Arg Ser Asn Ala Thr
        115                 120                 125
Cys Glu Glu Asp Tyr Ala Ala Ser Val Phe Gly Ala Val Trp Thr Gln
    130                 135                 140
Val Leu Ala Tyr Ala Asp Val Glu Gly Leu Asp Gly Asp Tyr Ile Cys
145                 150                 155                 160
His Ala Leu Asn Lys Ser Leu Cys Gly Pro Pro Ala Thr Ser
                165                 170
```

<210> 31199
<211> 355
<212> PRT
<213> A.fumigatus

<400> 31199

```
Leu Leu Ala Arg Phe Gly Thr Val Asp Glu Glu Val Leu Gln Lys Thr
1               5                   10                  15
Asn Ile Ala Lys Leu Leu Ser Arg Phe Val Lys Lys Gly Gly Pro Thr
            20                  25                  30
Val Lys Glu Leu Ser Gln Lys Ile Leu Asp Asn Ala Ala Ala Ser Thr
        35                  40                  45
Lys Arg Lys Gln Glu Ser Thr Lys Pro Ala Ala Lys Glu Arg Gln Ala
    50                  55                  60
Thr Lys Ser Ser Pro Ser Glu Ala Ala Pro Ala Asn Asn Ser Arg Pro
65                  70                  75                  80
Glu Ile Thr Gly Ser Lys Arg Pro Arg Glu Gly Glu Pro Ser Gly Gln
                85                  90                  95
Gly Ala Ser Lys Arg Met Val Val Thr Ser Asn Ile Lys Pro Ser Ala
            100                 105                 110
Lys Ala Gly Asn Ala Thr Ile Thr Gly Ser Val Lys Arg Pro Gln Glu
        115                 120                 125
Thr Ala Gln Glu Asn Arg Ser Ala Ala Ala Val Ser Arg Pro Lys Ala
    130                 135                 140
Asn Ile Ile Ala Pro Lys Pro Thr Ser Leu Phe Gly Ser Leu Val Ser
145                 150                 155                 160
Ala Ser Lys Arg Pro Gly Thr Ser Asn Ala Glu Arg Ala Ala Ala Ala
                165                 170                 175
Ala Ala Ala Ala Lys Thr Arg Tyr Ala Glu Cys Glu Ala Pro Val Cys
            180                 185                 190
Gly Pro Ser Glu Ile Met Leu Thr Met Ile Ser Pro Pro Ala Glu Arg
        195                 200                 205
Lys Glu Thr Gln Ala Pro Pro Pro Arg Pro Thr Phe Ser Phe Gly Asp
    210                 215                 220
Ile Met Ala Asp Leu Asn Lys Gln Lys Gly Pro Glu Ser Val Glu Pro
225                 230                 235                 240
Thr Glu Asp Arg Pro Pro Glu Ser Glu Glu Glu Arg Lys Arg Arg Leu
                245                 250                 255
Arg Lys Glu Ala Arg Arg Lys Leu Arg Val Arg Trp Lys Pro Asp Glu
            260                 265                 270
Ser Leu Thr Glu Val Arg Leu Phe Thr His Asp Pro Asp Glu Glu Leu
        275                 280                 285
Gly Pro Gly Asp Arg Ser Gln Gly Glu Ile Gly Asp Ile Lys Gly Glu
    290                 295                 300
Gly Ser Val Leu Lys Leu His Arg Asp Leu Glu Asp Leu Glu Asp Asp
305                 310                 315                 320
```

```
Asp Asp Gly Val Ile Arg Glu Glu Asn Leu Met Asp Tyr Thr Glu Pro
                325                 330                 335
Ser Gly Lys Pro Val Ser Thr Gln Gly Met Gly Cys Leu Leu Thr Glu
            340                 345                 350
Ser Arg Asn
        355
```

<210> 31200
<211> 65
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (11)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31200

```
His Ala Leu Pro Ser Arg Pro Gly Arg Val Xaa Thr Ser Met Cys His
1               5                   10                  15
Arg Leu Met Phe Tyr Leu Phe Val Leu Ser Phe Met Ile Ser Leu Phe
            20                  25                  30
Tyr Leu Pro Leu Thr Thr Trp Val Met Thr Trp Leu Glu Ile Pro Asn
        35                  40                  45
Gly Leu Pro Gly Pro Gln Ile Arg Ser Pro Arg Asp Thr Pro Ile Asn
    50                  55                  60
Gly
65
```

<210> 31201
<211> 81
<212> PRT
<213> A.fumigatus

<400> 31201

```
Ser Val Met Pro Ser Ile Leu Ser Asp Ala Asp Lys Glu Thr Val Lys
1               5                   10                  15
Arg Asn Val Ser Lys Pro Ser Asn Lys Ile Leu Ala Val Ala Val Ala
            20                  25                  30
Arg Leu Tyr Val Ala Tyr Pro Asp Pro Gln Arg Trp Thr Tyr Thr Gly
        35                  40                  45
Leu Gln Gly Ala Ala Val Leu Ala Asn Asp Leu Val Gly Arg Thr Phe
    50                  55                  60
Trp Leu Lys Leu Val Asp Val Ser Val Ser Ser Tyr Phe Leu Glu Gln
65                  70                  75                  80
Gly
```

<210> 31202
<211> 300
<212> PRT
<213> A.fumigatus

<400> 31202

```
Pro Ala Gly Arg Gly Val Ile Trp Asp Gln Glu Ile Tyr Asp Asn Phe
1               5                   10                  15
```

```
Ala Tyr Asn Gln Asp Arg Thr Phe Phe His Thr Phe Glu Leu Glu Asp
            20                  25                  30
Cys Ala Ala Gly Phe Ser Phe Ala Asp Glu Lys Glu Ala Lys Thr Phe
        35                  40                  45
Ile Lys Lys Met His Glu Arg Glu Lys His Ala Ser Lys Glu Thr Arg
    50                  55                  60
Gln Thr Pro Phe Ala Ser Thr Arg Gly Gln Gly Pro Ala Pro Met Ala
65                  70                  75                  80
Asn Gly Lys Pro Gly Val Gly Arg Ser Leu Phe Gly Ser Leu Leu Gly
                85                  90                  95
His Arg Ser Pro Ser Gly Ser Ser Val Pro Pro Pro Ala Pro Ala Pro
            100                 105                 110
Ala Ala Pro Ser Ala Pro Pro Thr Gln Ser Ala Leu Pro Ser Gly Pro
        115                 120                 125
Ser Arg Lys Glu Leu Pro Phe Asp Thr Ser Asp Pro Ser Trp Lys Gly
    130                 135                 140
Leu Leu Asp Glu Leu Leu Gln Met Gly Ile Thr Glu Asp Gln Ile Ala
145                 150                 155                 160
Glu Asn Ser Asp Phe Ile Lys Ala Tyr Ile Glu Gln Arg Gln Gly Ser
                165                 170                 175
Glu Ala Glu Pro Thr Ala Ser Pro Ser Glu Asp Gln Arg Arg Gly Lys
            180                 185                 190
Ala Pro Pro Pro Pro Pro Pro Ser Ala Pro Pro Ala Leu Lys Thr Thr
        195                 200                 205
Pro Ile Ser Pro Gln Asn Thr Gly Asn Ser Gly Gly Ser Arg Arg Gly
    210                 215                 220
Ala Pro Pro Pro Pro Pro Pro Ser Arg Lys Ala Arg Pro Glu Ala Glu
225                 230                 235                 240
Glu Glu Pro Ala Pro Ala Pro Ala Arg Glu Pro Ser Pro Pro Arg Pro
                245                 250                 255
Arg Phe Arg Ala Pro Pro Pro Ile Ala Asp Ala Gly Lys Leu Ala His
            260                 265                 270
Thr Val Gly Pro Pro Val Pro Gly Arg Gln Arg Ala Met Ser Gly Thr
        275                 280                 285
Asn Pro Ser Ser Pro Arg Arg Met Glu Arg Gln Thr
    290                 295                 300
```

<210> 31203
<211> 68
<212> PRT
<213> A.fumigatus

<400> 31203

```
Trp Phe Leu Val Gly Ala Gly Glu Ser Gly Lys Ser Thr Ile Ile Lys
1               5                   10                  15
Gln Met Arg Ile Ile His Ser Gly Gly Phe Pro Glu Asp Glu Arg Arg
            20                  25                  30
Gln Thr Arg Ala Val Ile Tyr Ser Asn Leu Val Ile Ala Phe Lys Val
        35                  40                  45
Leu Leu Asp Ile Met Arg Ala Glu Gln Ile Asp Phe Glu Leu Glu Thr
    50                  55                  60
Thr Lys Val Asn
65
```

<210> 31204
<211> 240

<212> PRT
<213> A.fumigatus

<400> 31204
Gln Ser Ala Ile Val Ser Leu Val Asp Gly Ile Phe Leu Ile Ser Gly
1 5 10 15
Tyr Leu Leu Ser Cys Ser Phe Phe Gly Ser Leu Asp Arg Leu Phe Lys
20 25 30
Pro Gly Trp Leu Pro Asp Asn Gln Asp Met Leu Gln Ala Arg Leu Arg
35 40 45
Thr Thr Gly Ile Thr Glu Thr Leu Phe Glu Leu Gly Gln Met Asn Phe
50 55 60
Arg Met Met Asp Val Gly Gly Gln Arg Ser Glu Arg Lys Lys Trp Ile
65 70 75 80
His Cys Phe Glu Gly Val Gln Cys Leu Leu Phe Met Val Ala Leu Ser
85 90 95
Gly Tyr Asp Gln Cys Leu Val Glu Asp Gln Asn Ala Val Ser Gln Ser
100 105 110
Ser Leu Ser Ala Ser Glu Glu Ala Cys Tyr Leu Thr Gln Thr Gln Asn
115 120 125
Gln Met His Glu Ala Met Met Leu Phe Glu Ser Leu Val Asn Gly Glu
130 135 140
Trp Phe Lys Arg Lys Pro Ile Ile Leu Phe Leu Asn Lys Ile Asp Leu
145 150 155 160
Phe Lys Gly Lys Leu Glu Phe Ser Pro Val Ser Lys His Phe Pro Asp
165 170 175
Tyr Asn Gly Ser Asn Ser Asp Phe Asp Ala Ala Ala Arg Tyr Phe Ala
180 185 190
Asp Arg Phe Arg Gly Ile Asn Arg Ile Pro Asp Arg Glu Ile Tyr Ile
195 200 205
His Tyr Thr Asn Ala Thr Asp Thr Thr Leu Leu Lys Ala Thr Met Glu
210 215 220
Ser Val Gln Asp Met Ile Ile Gln Lys Asn Leu His Thr Leu Ile Leu
225 230 235 240

<210> 31205
<211> 80
<212> PRT
<213> A.fumigatus

<400> 31205
Thr Glu Gly Glu Pro Ser Ile Phe Pro Ile Gln Thr Leu Val Pro Leu
1 5 10 15
Leu Ile Leu Thr Val Gly Phe Ala Phe Gln Gln Leu Ala Glu Phe Ile
20 25 30
Asp Asn Leu Glu Pro Asp Val Gly Ser Asp Glu Ala Phe Ser Asp Tyr
35 40 45
Lys Val Arg Asp Ala Met Arg Glu Met Trp Val Asp Ala Trp Val Gln
50 55 60
Lys Ala Val Ser Arg Gly His Glu Phe Ala Leu His Asp Asn Leu Gln
65 70 75 80

<210> 31206
<211> 82
<212> PRT
<213> A.fumigatus

<400> 31206
Gly Gly Val Ala Thr Pro Ala Asp Ala Ala Leu Met Met Gln Leu Gly
1 5 10 15
Cys Asp Gly Val Phe Val Gly Ser Gly Ile Phe Lys Ser Gly Asp Ala
20 25 30
Lys Lys Arg Ala Lys Ala Ile Val Gln Ala Val Thr His Tyr Lys Asp
35 40 45
Pro Lys Val Leu Ala Glu Val Ser Glu Gly Leu Gly Glu Ala Met Val
50 55 60
Gly Ile Asn Val Ser Gln Met Pro Glu Ala Asp Arg Leu Ala Lys Arg
65 70 75 80
Gly Trp

<210> 31207
<211> 174
<212> PRT
<213> A.fumigatus

<400> 31207
Tyr Tyr Pro Ser Val Tyr Asp Cys Ile Lys Ile Thr His Arg Met Asn
1 5 10 15
Ser Leu Ser Ser Phe Arg Lys Cys Val Leu Ser Arg Ser Ala Arg Ser
20 25 30
Thr Ser Pro Leu Met Leu Asp Phe Leu Ala Pro Ser Val Leu Arg Gln
35 40 45
Ser Arg Thr Arg His Ser Ser Thr Ala Ala Ser Ser Ser Pro Asp Gly
50 55 60
Ala Gln Gln Ser Ser Gln Asn Ser Gly Ala Gly Ser Ser Lys Pro Thr
65 70 75 80
Tyr Ile Leu Ser Lys Lys Gln Arg Glu Tyr Leu Asp Ser Ala Leu Arg
85 90 95
Val Tyr Gln Ala Gly Glu Leu Ala Ala Thr Leu Ile Tyr Ala Ala Pro
100 105 110
Thr Pro Gln Val Leu Arg Ser His Pro His Leu Arg Thr Leu Met Lys
115 120 125
His Met Cys Glu Pro Arg Ser Arg Asn Leu Leu Asp Ile Gln Gln Asn
130 135 140
Ser Leu Ala Lys Pro Pro Gly Ser Ala Pro Thr Val Leu Val Phe Arg
145 150 155 160
Phe Gly Lys Ile Pro Thr Gly Leu Ser Leu Gly Met Val Arg
165 170

<210> 31208
<211> 284
<212> PRT
<213> A.fumigatus

<400> 31208
Val Cys Arg Phe Leu Cys Thr Pro Phe Asp Leu Asn Cys Val Leu Cys
1 5 10 15
Val Arg Trp Leu Glu Thr Asp Asn Thr Gly Pro Thr Arg Ser Asp Ala
20 25 30
Gly Ser His His Ser Leu Glu Ser Ala Ser Met Ser Glu Ser Asp Ala
35 40 45

```
Ala Ser Asp Ser Glu Gly Ala Ser Glu Asp Ala Glu Glu Asp Arg Pro
    50                  55                  60
Ile Phe Pro Tyr Glu Lys Leu Tyr Tyr Ser Ala Lys Asp Lys Glu Glu
65                  70                  75                  80
Ile Met Ala Leu Pro Glu Ile Gln Arg Glu Gln Ile Leu Ser Glu Arg
                85                  90                  95
Ala Gln Glu Val Asp Arg Arg Asn Gln Asp Leu Ala Leu Arg Arg Leu
            100                 105                 110
Leu Ala Ser Arg Glu Arg Asp Glu Ala Arg Arg Val Lys Lys Ser Lys
        115                 120                 125
Arg Lys Ala Ser Val Ala Asp Leu Glu Glu Gly Gln Arg Lys Ser Ser
    130                 135                 140
Arg Gln Lys Thr Thr Leu Gly Gly Arg Lys Val Gly Glu Ala Ser Glu
145                 150                 155                 160
Ala Ile Glu Ala Tyr Lys Arg Gln Arg Glu Lys Lys Gly Arg Arg Asp
                165                 170                 175
Glu Leu Arg Arg Arg Asp Met Ala Ala Gly Glu Ala Ala Pro Val Lys
            180                 185                 190
Asp Glu Ala Pro Ser Asp Lys Asp Ala Glu Gly Glu Ser Glu Val Glu
        195                 200                 205
Trp Asp Asn Arg Glu Arg Ser Pro Ser Pro Pro Lys Asp Asp Pro Pro
    210                 215                 220
Ala Asp Leu Arg Asp Ile Gln Arg Ala Arg Val Gly Arg Thr Asn Phe
225                 230                 235                 240
Ala Gln Val Cys Phe Tyr Pro Gly Phe Asp Glu Ala Ile Ser Gly Cys
                245                 250                 255
Tyr Ala Arg Val Asn Ile Gly Pro Asn Arg Asp Thr Gly Ile Asn Glu
            260                 265                 270
Tyr Arg Leu Cys Leu Ile Lys Ser Met Ser Pro Gly
        275                 280

<210> 31209
<211> 89
<212> PRT
<213> A.fumigatus

<400> 31209
Asn Val Ser Ser Ser Thr Ser Ser Leu Ser Leu Arg Phe Leu Thr Met
1               5                   10                  15
Pro Gln Asp Ile Asn Ser Glu Leu Asp Glu Leu Asp Arg Glu Glu Phe
            20                  25                  30
Tyr Arg Leu Lys Lys Val Ser Asn Lys Lys Gln Arg Asp Ser Ala Ala
        35                  40                  45
Ala Asp Ala Glu Ile Val Ala Thr Arg Glu Arg Glu Ala Ala Asp Lys
    50                  55                  60
Arg Ala Ala Glu Val Glu Ala Val Pro Glu Val Pro Asp Val Leu Gly
65                  70                  75                  80
Glu Asn Glu Asp Ala Asp Val Ile Phe
                85

<210> 31210
<211> 158
<212> PRT
<213> A.fumigatus

<400> 31210
```

```
Pro Lys Leu Arg Ser Ala Val Ser Met Cys Val Ser Ser Ser Ala Cys
1               5                  10                  15
Tyr Asn Glu Arg Thr Ala His Leu Thr Ser Leu Thr Lys Gln Val Arg
            20                  25                  30
Asn Leu Glu Glu Arg Ile Lys Val Asp Gln Leu Lys Val Ala Leu Glu
        35                  40                  45
Glu Ile Phe Ser Glu Tyr Gly Asn Ile Val Glu Ile Val Ala Lys Thr
    50                  55                  60
Asn Leu Lys Ala Lys Gly Gln Ala Phe Ile Val Phe Asp Asn Val Glu
65                  70                  75                  80
Ser Ala Thr Arg Ala Ile Glu Glu Val Asn Gly Phe Glu Leu Phe Asp
                85                  90                  95
Lys Pro Met Val Leu Asp Tyr Ala Lys Thr Lys Ser Asp Ala Thr Val
            100                 105                 110
Leu Arg Glu Gly Gly Thr Glu Glu Leu Glu Val His Lys Arg Arg Arg
        115                 120                 125
Leu Ala Glu Lys Gly Ala Phe Phe Leu Ala Phe Ser Phe Phe Pro Phe
    130                 135                 140
Lys Ser Cys Leu Leu Leu Leu Val Leu Gly Cys Val Phe His
145                 150                 155
```

<210> 31211
<211> 137
<212> PRT
<213> A.fumigatus

```
<400> 31211
Leu Cys Leu Phe Leu Val Glu Arg Lys Gln Ala His Glu Ala Leu Glu
1               5                  10                  15
Ala Gln Lys Lys Leu Lys Arg Pro Pro Gly Pro Ala Asp Thr Ala Arg
            20                  25                  30
Pro Ala Lys Thr Val Lys Gly Ala Gly Leu Lys Pro Thr Ser Gly Ala
        35                  40                  45
Ala Ala Ala Val Ile Pro Asp Glu Tyr Leu Pro Pro Asn Lys Ile Leu
    50                  55                  60
Phe Leu Arg Asp Leu Pro Asp Thr Ala Asp Gln Glu Ser Leu Thr Ala
65                  70                  75                  80
Ile Phe Gly Arg Phe Glu Gly Phe Gln Glu Val Arg Leu Val Pro Gly
                85                  90                  95
Arg Lys Gly Ile Ala Phe Val Glu Tyr Glu Asn Glu Ser Gly Ala Ile
            100                 105                 110
Ser Ala Lys Glu Ala Thr Ala Asn Met Pro Met Gly Asp Asn Gly Lys
        115                 120                 125
Pro Ile Arg Val Thr Tyr Gln Arg Gln
    130                 135
```

<210> 31212
<211> 63
<212> PRT
<213> A.fumigatus

```
<400> 31212
Glu Met Tyr Ile Ala Gln Arg Asn Ser Ala Asp Thr Leu Glu Asn Asp
1               5                  10                  15
Ile Gly Val Phe Ile Leu Pro Gln Asn Val Trp Asp Leu Trp His Arg
            20                  25                  30
```

```
Leu Asp Phe Ser Gly Pro Leu Val Arg Ser Leu Pro Phe Pro Ser Ser
        35                  40                  45
Tyr Asn Phe Gly Ile Ser Ser Ser Thr Ile Pro Leu Leu Leu Val
    50                  55                  60

<210> 31213
<211> 168
<212> PRT
<213> A.fumigatus

<400> 31213
Thr Gln His Ala Met Asn Gly Thr Pro Arg Leu Arg Ser Ala Phe Pro
1               5                   10                  15
Gln Thr Pro Gln Thr Leu Gln Arg Thr Arg Glu Tyr Asn Ile Thr Pro
            20                  25                  30
Thr Arg Pro Lys Pro Arg Asp Val Gly Leu Arg Arg Ser Pro Val Lys
        35                  40                  45
Val Pro Gln Thr Lys Ala Asp Ala Pro Leu Val Pro Thr Gly Val Ile
    50                  55                  60
Asp Ala Pro Ser Gln Arg Leu Tyr Val Val Ala Phe Tyr Ile Ala Leu
65                  70                  75                  80
Asn Ala Trp Arg Val Tyr Glu Ser Trp Thr Ala Ser Asp Glu Leu Asp
                85                  90                  95
Ser Thr Trp Leu Phe Leu Lys Trp Thr Ser Ile Asp Gly Val Phe Leu
            100                 105                 110
Phe Gly Leu Gln Ala Leu Arg Ile Pro Trp Leu Glu Trp Ala Phe Pro
        115                 120                 125
Thr Thr Leu Ala Ile Phe Leu Ile His Val Val Gly Asn Met Phe Leu
    130                 135                 140
Met Phe Gln Ile Pro Val Arg Thr Leu Pro Cys Arg Ala Met Val Asp
145                 150                 155                 160
Leu Leu Thr Pro Arg Arg Phe Gln
                165

<210> 31214
<211> 574
<212> PRT
<213> A.fumigatus

<400> 31214
Lys Trp His Thr Ile Gly Asn Tyr Pro Phe Pro Ser Val Val Ser Asn
1               5                   10                  15
Leu Glu Ile Leu Ser Ile Met Pro Leu Ser Phe Leu Gly Ser Arg Ser
            20                  25                  30
Phe Thr Phe Phe Arg Arg Gly Arg Leu Ser Leu Ser Trp Val Pro Lys
        35                  40                  45
Thr Arg Leu Leu Thr Phe Phe Ser Ser Ala Val Leu Asn Pro Asp Gln
    50                  55                  60
Ile Pro Phe Cys Leu Asp Ser Gln Arg Ser Thr Val Asn Leu Pro Ile
65                  70                  75                  80
Arg Val Asn Gln Thr Asp Pro Val Leu Ile Glu Leu Leu Arg Leu Asp
                85                  90                  95
Leu Ser Thr Gly Glu Asn Glu Thr Ile Thr Ile Ser Ser Lys Gln Leu
            100                 105                 110
Lys Gln Met Lys Arg Gln Ala Gly Lys Lys Leu Ser Ser Ser Asp Ala
        115                 120                 125
```

```
Pro Glu His Arg Asp Ile Leu Tyr Pro Ile Arg Arg Thr Gly Ile Tyr
    130                 135                 140
Arg Leu Gln Arg Val Val Asp Glu Ser Asn Leu Glu Val Arg Met Arg
145                 150                 155                 160
Ser Ser Asp Ala Leu Val Val Ser Cys Pro Arg Ala Leu Ile Lys Asn
                165                 170                 175
Ser His Thr His Lys Cys Lys Gly Glu Leu Ser Asn Leu Val Leu Glu
            180                 185                 190
Val Glu Gly Thr Pro Pro Leu Lys Ile Lys Tyr Ser Arg Gln Val Asn
        195                 200                 205
Lys Leu Asp Arg Gly Phe Ser Phe Gln Asn Ile Gln Pro Asp His Leu
    210                 215                 220
Arg Ser Pro Leu Leu Gly Gln Arg Ser Ser Gly Ile Leu Phe Asp Ala
225                 230                 235                 240
Glu Gln Pro Glu Ile Thr Trp Ala Gln Ser Gln Thr Ile Glu Val Pro
                245                 250                 255
Leu Asn Glu Ser Leu Asn Val Gly Gly Glu Trp Phe Tyr Asn Ile Glu
            260                 265                 270
Glu Val His Asp Gly Cys Gly Asn Ile Ala Asn Tyr Ser Thr Leu Leu
        275                 280                 285
Asp Glu Ala Asp Arg Ser Ser Pro Lys Ser Leu Pro His Trp His Gln
    290                 295                 300
Phe Ser Val His Glu Arg Pro Arg Leu Ser Leu Ser Gly Cys Asp Asp
305                 310                 315                 320
Gln His Phe Ile Lys Val Ala Lys Gly Glu His Val Asn Leu Pro Leu
                325                 330                 335
Arg Phe His Pro Val Gly Gln Gly Tyr Asp Tyr Asp Gly Pro Phe Ser
            340                 345                 350
Leu Gly Tyr Ser Phe Arg Gly Asn Glu Leu Asp Glu Arg Asp Ser Ser
        355                 360                 365
Asp Lys Val Arg Gln Leu Ser Leu Lys Asp Leu Asp Gln Lys Pro Gln
    370                 375                 380
Ile Lys Glu Ser Gly Trp Tyr Met Leu Asn Ser Ile Ser Ser Gln Phe
385                 390                 395                 400
Cys Ser Gly Glu Ile Leu Glu Pro Ser Ser Cys Tyr Leu His Asn Pro
                405                 410                 415
Pro Glu Pro Glu Leu Ala Leu Lys Tyr Glu Lys Ile Phe Asp Lys Cys
            420                 425                 430
Ala Asn Asn Ser Val Gly Leu Leu Leu Asp Leu Asp Leu Thr Gly Ser
        435                 440                 445
Pro Pro Phe Arg Met Arg Tyr Ser Ile Glu His Ser Lys Gly Val Glu
    450                 455                 460
Thr Lys Ser Leu Thr Val Asp Gly Leu Arg Thr Gln Leu Asp Phe Thr
465                 470                 475                 480
Pro Ser Glu Ala Gly Phe Tyr Arg Tyr Arg Phe Leu Asp Ile Ala Asp
                485                 490                 495
Thr Val Tyr Ala Pro Arg Ser Leu Lys Asp Lys Val Pro Val Leu Glu
            500                 505                 510
Gln Asp Val Lys Pro Pro Ala Ser Ala His Phe Leu Gly Ser Arg Glu
        515                 520                 525
Val Arg Arg Ala Cys Phe Gly Glu Pro Val Ser Ile Asp Val Ser Phe
    530                 535                 540
Leu Gly Glu Ser Pro Trp Thr Leu His Tyr Glu Leu Pro His Asn Gly
545                 550                 555                 560
Lys Phe Phe His Glu Ser Val Ser Arg Asn Ser Asp Trp Gly
                565                 570
```

<210> 31215
<211> 77
<212> PRT
<213> A.fumigatus

<400> 31215
Cys Tyr Thr Leu Leu Ser Phe Glu Val Phe Glu Gly Ser Glu Glu Arg
1 5 10 15
Gln Thr Glu Val Glu Glu Cys Arg Ser Trp His Ala Gly Phe Thr Glu
20 25 30
Lys Asn Pro Leu Leu Ile Glu Val Ser Cys Thr Tyr Thr Asn Gly Gln
35 40 45
Ser Ile Glu Asp Val Asn Asn Arg Lys Asn Asn Leu Met Ile Arg Glu
50 55 60
Asn Arg Glu Ser Tyr Thr Arg Leu Leu Gln Leu Ala Asn
65 70 75

<210> 31216
<211> 70
<212> PRT
<213> A.fumigatus

<400> 31216
Ala Gly Arg Arg Val Leu Glu Ser Leu Pro Ala Ser Leu Asn Leu Lys
1 5 10 15
Phe Ser Phe Val Asp Leu Asp Ala Gly Phe Asp Thr Phe Lys Arg Thr
20 25 30
Gly Thr Ala Leu Pro Asp Lys Thr Val Glu Thr Leu Lys Lys Glu Cys
35 40 45
Asp Gly Ala Leu Phe Gly Ala Val Arg Ser Val Val Pro Met Thr Gly
50 55 60
Asn Phe Arg Ser Ser Ala
65 70

<210> 31217
<211> 71
<212> PRT
<213> A.fumigatus

<400> 31217
Gln Glu Cys Gln Pro Thr Gly Leu Met Asn Arg Val Gln Ser Lys His
1 5 10 15
Thr Val Pro Asp Asn Arg Thr Val Val Phe Leu Tyr Ala Ile Asn Thr
20 25 30
Leu Tyr Ala Phe Asp Gly Tyr Ile Ile Ser Ser His Gln His Lys Met
35 40 45
His Leu Ile Tyr Leu Leu Ser Gly His Ser Ala Ser Glu Arg Gln Lys
50 55 60
Ile Gly Asn Ala Pro Gln Val
65 70

<210> 31218
<211> 69
<212> PRT
<213> A.fumigatus

<400> 31218
Arg His Gly Ser Met Ser Leu Asn Gln Thr Gly Phe Thr Asp Ile Ile
1 5 10 15
Asp Gly Gly Ser Ser Gly Cys Tyr Val Gly Thr Ser Asn Glu Gln Leu
20 25 30
Val Pro Asn Ala Ser Trp Asn Ala Thr Pro Gly Trp Asp Pro Val Thr
35 40 45
Gly Leu Gly Thr Pro Ile Tyr Asn Thr Leu Val Lys Leu Ala Thr Ser
50 55 60
Val Ser Ser Thr Pro
65

<210> 31219
<211> 216
<212> PRT
<213> A.fumigatus

<400> 31219
Glu Asp Val Ala Ile Met Ala His Ser Val Asp Leu Arg Ser Leu Val
1 5 10 15
Ser Glu Leu His Asn Ala Leu Asn Arg Lys Gln Leu Asp Ala Ala Asn
20 25 30
Asn Leu Leu Ser Gln Ala Lys Arg Thr Leu Leu Leu Gln Asn Ala Leu
35 40 45
Ile Pro Thr Pro Ser Thr Pro Ser Asp Leu Ile Ala Leu Ala Arg Glu
50 55 60
Val Leu Glu Leu Gly Ala Leu Ala Ser Ile Arg Gln Thr Asp Ala Gln
65 70 75 80
Gly Phe Thr Arg Tyr Tyr Gln Gln Leu Gln Pro Phe Tyr Asp Leu Glu
85 90 95
Arg Asp Gly Ala Gly Ser Val Lys Val Asp Thr Lys Ser Ser Gln Arg
100 105 110
Ser Lys Ile Thr Gly Leu Tyr Leu Met Leu Leu Leu Ser Met Gly Asp
115 120 125
Ser Thr Ser Phe His Thr Val Leu Glu Gly Leu Val Glu Glu Ala Ser
130 135 140
Leu Gln Gly Lys Arg Val Glu Asp Asp Leu Tyr Ile Lys Tyr Pro Val
145 150 155 160
Asp Leu Glu Arg Ser Leu Met Glu Gly Ser Tyr Asp Lys Val Trp Arg
165 170 175
Glu Thr Asn Ser Glu Arg Val Pro Ser Glu Asp Phe Ala Leu Phe Ser
180 185 190
Asn Val Ser Ser Ala Leu Phe Arg Cys Ile Leu Cys Phe Cys Ser Ala
195 200 205
Val Glu Leu Pro Leu Met Thr Leu
210 215

<210> 31220
<211> 92
<212> PRT
<213> A.fumigatus

<400> 31220
Val Leu Val Gly Thr Ile Arg Ser Glu Ile Ala Asp Cys Ser Glu Lys
1 5 10 15

```
Ala Tyr Pro Ser Leu Pro Ile Ser Asn Ala Lys Asn Leu Leu Phe Leu
            20                  25                  30
Asp Ser Glu Gly Ala Val Ile Glu Phe Ala Gln Gln Arg Gly Trp Val
        35                  40                  45
Leu Arg Asp Gly Arg Ile Tyr Phe Pro Val Glu Pro Glu Ala Ala Ala
    50                  55                  60
Arg Ser Glu Lys Asp Ile Leu Val Ala Ser Ser Thr Val Ile Glu Asn
65                  70                  75                  80
Thr Ile Gly Tyr Ala Arg Glu Leu Glu Thr Ile Val
                85                  90
```

<210> 31221
<211> 211
<212> PRT
<213> A.fumigatus

```
<400> 31221
Cys His His His Val Ala Trp His Cys His Cys Cys Pro Leu Leu Arg
1               5                   10                  15
Leu Leu Pro Pro Asp Ser Val His Ile His Pro Cys Gly Phe His Leu
            20                  25                  30
Asp Ser Tyr Phe His Pro Gln Val Ser Asn Tyr Ile His Thr His Ser
        35                  40                  45
Arg Phe Phe Tyr Trp Arg Ile Thr Ser Tyr Ser Leu Leu Arg Phe Leu
    50                  55                  60
Tyr Tyr Lys Arg Asn Thr Ala Arg Trp Tyr Ile Ile Gly Val Gly Asn
65                  70                  75                  80
Glu Arg Val Arg Ala Ile Met Pro Gly Lys Thr Thr Thr Thr Pro Arg
                85                  90                  95
Ile Thr Lys Phe Thr Asn Cys Arg Ile Val Lys Gly Ser Glu Leu Val
            100                 105                 110
Glu Gln Asp Val Trp Ile Asp Ser Leu Ser Gly Lys Ile Leu Lys Asp
        115                 120                 125
Gln Glu Ala Phe Tyr Gly Leu His Leu Ser Pro Asp Glu Val Val Asp
    130                 135                 140
Leu Gly Gly Arg Ile Leu Ala Pro Gly Leu Ile Asp Val Gln Leu Asn
145                 150                 155                 160
Gly Ala Gln Gly Phe Asp Phe Ser Val Pro Gln Ala Ser Lys Glu Glu
                165                 170                 175
Tyr Asn Glu Gly Leu Arg Leu Val Asn Lys Gly Leu Ala Arg Thr Gly
            180                 185                 190
Val Thr Ser Tyr Leu Pro Thr Val Val Ser Ser Thr Pro Glu Val Tyr
        195                 200                 205
Trp Lys Val
    210
```

<210> 31222
<211> 144
<212> PRT
<213> A.fumigatus

```
<400> 31222
Arg Pro Leu Arg Leu Arg Glu Ser Ala Asp Leu Thr Gln Met Ser Phe
1               5                   10                  15
Gln Val Leu Pro Ser Leu Gly Pro Ser Gly Ser Asn His Arg Pro Glu
            20                  25                  30
```

```
Asp Gly Ala Glu Ser Leu Gly Ala His Val Glu Gly Pro Phe Ile Asn
        35                  40                  45
Pro Asn Arg Asn Gly Ile His Lys Thr Glu Val Leu Arg Ala Ala Gln
    50                  55                  60
Asn Phe Glu Asp Leu Glu Glu Cys Tyr Gly Lys Glu Asn Leu Thr Gly
65                  70                  75                  80
Ser Ser Lys Ser Val Lys Met Ile Thr Val Ala Pro Glu Val Gly Asn
                85                  90                  95
Met Val Ser Thr Ile Pro Ser Leu Thr Ser Ala Gly Ile Val Cys Ser
            100                 105                 110
Ile Gly His Ser Asp Ala Thr Phe Glu Gln Ala Leu Ser Ala Thr Thr
        115                 120                 125
Ala Gly Ala Thr Met Val Thr His Met Phe Asn Ala Met Arg Pro Phe
    130                 135                 140
```

<210> 31223
<211> 102
<212> PRT
<213> A.fumigatus

<400> 31223

```
Cys Cys Glu Gly Gln Ser Pro Gln Leu Ala Ala Leu Leu Trp Tyr Gln
1               5                   10                  15
Val Ser Phe Leu Arg Asn Ile Glu Ile Tyr Ala Ile Pro Arg His Gly
            20                  25                  30
Met His Val Ile Ile Asp Val His Ser Pro Gly Gly Val Asn Gly Met
        35                  40                  45
Pro Phe Ser Glu Ala Tyr Gly His Tyr Arg Trp Phe Asn Ser Gln Thr
    50                  55                  60
Ala Leu Asp Cys Ser Leu Ala Ala Ile Asp Ala Val Leu Ala Tyr Val
65                  70                  75                  80
Gln Ser Leu Ser His Pro Glu Cys Ser Pro Leu His Pro Ser Met Ser
                85                  90                  95
Arg Leu Ile Ile Glu Pro
            100
```

<210> 31224
<211> 432
<212> PRT
<213> A.fumigatus

<400> 31224

```
Ser Thr Leu Ser Leu Pro Pro Ile Leu Ser Leu Ala Val Val Phe Val
1               5                   10                  15
Thr Gln Ala Asp Thr Thr Val Pro Gly Thr Thr Ile Lys Gly Thr Cys
            20                  25                  30
Val Pro Cys Asp Ser Glu Pro His Thr Thr Ser Ser Pro Leu Ser Leu
        35                  40                  45
Val Leu Ser Ala Arg Pro Ala Ser Gly Met Ala Val Ser Phe Arg Trp
    50                  55                  60
Arg Pro Ser Pro Arg Ala Thr Lys Ala Leu Leu Ile Ser Ala Phe Ala
65                  70                  75                  80
Ile Leu Ser Leu Cys Thr Leu Trp Thr Leu Trp Tyr His Val Ser Ser
                85                  90                  95
Thr Phe Ser Ala Val Ser Thr Pro Ile Gly Leu His Asp Ser Glu Gly
            100                 105                 110
```

JC542 U.S. PTO
09/417507
10/14/99

```
Lys Leu Ser Asp Glu Gln Arg Glu Arg Pro Ser Pro Ser Gly Pro Glu
        115                 120                 125
Thr Val Pro Glu Lys Gly Pro Pro Arg Gln His Arg Tyr Ala Phe Ala
    130                 135                 140
Thr Ile Leu Thr Gly Glu Asp Ala Thr Glu Thr Asp Ile Lys Asp Pro
145                 150                 155                 160
Tyr Phe Thr Ala Val Arg Leu Leu Ala Tyr Gln Leu Leu Arg Ser Pro
                165                 170                 175
His Thr Lys Ser Ser Ser Asp Ile Pro Phe Leu Val Leu Val Thr Glu
            180                 185                 190
Glu Val Pro Gln Arg Gln Arg Asp Ile Leu Ser Arg Asp Gly Ala Ile
        195                 200                 205
Val Val Pro Val Glu Gly Phe Ser Arg Asp Trp Ile His Pro Lys Trp
    210                 215                 220
Glu Arg Trp Lys Ser Val Leu Ala Lys Leu Asn Leu Trp Lys Leu Thr
225                 230                 235                 240
Glu Tyr Glu Lys Ile Thr Phe Leu Asp Ala Asp Ser Val Ile Phe Glu
                245                 250                 255
Pro Ile Asp Gly Ile Phe Thr Glu Arg Ala Thr Met Thr Gln Ile Thr
            260                 265                 270
Arg Pro Ser Ser Ala Ala Leu Thr Thr Pro Gly Pro Val Pro Asp Ser
        275                 280                 285
Tyr Met Met Ala Gly Met His Asp Arg Trp Val Glu Val Ala Leu Pro
    290                 295                 300
Pro Val Pro Gly Ser Glu Phe Tyr Ala Lys Asp Asn Tyr Met Asn Ala
305                 310                 315                 320
Gly Phe Phe Val Leu Ala Pro Ser Glu Ala Met Phe Lys Tyr Tyr Ser
                325                 330                 335
Phe Leu Leu Asp Gln Pro Gly Leu Phe Asp Pro Ala Tyr Pro Glu Gln
            340                 345                 350
Asn Leu Leu Asn Tyr Ala His Arg Val Asp Gly Arg Met Pro Trp Gln
        355                 360                 365
Asp Ile Gly Pro Leu Trp Ser Gln Lys Gly Ser Ser Phe Glu His Tyr
    370                 375                 380
Asp Pro Arg Leu Lys Ser Leu His Gln Lys Trp Trp Lys Thr Ser Tyr
385                 390                 395                 400
Asp Gln Thr Phe Asp Glu Arg Ile Ala Asn Ala Met Ala Glu Leu Lys
                405                 410                 415
Asp Tyr Leu Gly Lys Gln Glu Glu Asp Thr Val Gln Pro Arg Ser Pro
            420                 425                 430

<210> 31225
<211> 135
<212> PRT
<213> A.fumigatus

<400> 31225
Arg Gly Gln Thr Arg Thr Trp Asn Phe Ile Leu Pro Glu Leu Gln Leu
1               5                   10                  15
Gln Glu Gln Glu Asp Gln Gly Gln Ser Lys Tyr Ser Asp Gln Ile Gly
            20                  25                  30
Ala Glu Gly Arg Val Gly Arg Tyr Ser Gln Asp Asn Arg Gly Gly Ser
        35                  40                  45
Lys Val Thr Ser Ser Gly Met Tyr Phe Pro Gly Ser Pro Ala Ala Pro
    50                  55                  60
Pro Ala Thr Asn Arg Val Ile Gln Ser Ala Ile Val Arg Ile Met Lys
```

65 70 75 80
Ser Arg Lys Lys Met Lys His Val Gln Leu Val Gln Glu Val Ile Gln
85 90 95
Gln Val Lys Ser Arg Phe Pro Pro Lys Val Gln Asp Ile Lys Lys Asn
100 105 110
Ile Glu Ala Leu Met Glu Lys Asp Tyr Ile Glu Arg Val Phe Asn Thr
115 120 125
Thr Gly Asp Pro Gln Trp Leu
130 135

<210> 31226
<211> 707
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (604)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31226
Leu Ser Ala Val His Asn Phe Cys Thr Ser Gln Lys Ala Val Ser Asn
1 5 10 15
Gly Gln Gly Leu Gln Ala His Arg Gly Gly Ser Ser Phe Arg Pro Leu
20 25 30
Cys Glu Trp Tyr Val Gly Leu Cys Trp Pro Cys Ser Asp Asp Phe Ser
35 40 45
Ser Val Ala His Leu Leu Gly Glu Glu Leu Tyr Lys Leu Leu Gly Glu
50 55 60
Tyr Leu Ser Arg His Leu Glu Ala Val Tyr Arg Glu Ser Leu Ser His
65 70 75 80
Thr Glu Glu Ala Leu Leu Gly Phe Tyr Ile Arg Glu Trp Val Arg Tyr
85 90 95
Thr Thr Ala Ala Lys Tyr Val Asn His Leu Phe Arg Tyr Leu Asn Arg
100 105 110
His Trp Val Lys Lys Glu Ile Asp Glu Gly Lys Lys Asn Val Tyr Asp
115 120 125
Val Tyr Thr Leu His Leu Val Lys Trp Lys Asp Asp Phe Phe Met Lys
130 135 140
Val His Glu Lys Val Met Glu Ala Val Leu Asn Leu Ile Glu Lys Gln
145 150 155 160
Arg Asn Gly Glu Thr Ile Glu Gln Ser Gln Ile Lys Asn Ile Val Asp
165 170 175
Ser Phe Val Ser Leu Gly Leu Asp Glu Asn Asp Asn Thr Lys Ser Thr
180 185 190
Leu Glu Val Tyr Arg Val Tyr Phe Glu Lys Pro Phe Ile Ala Ala Thr
195 200 205
Arg Val Tyr Tyr Glu Asn Glu Ser Arg Gln Phe Val Ala Glu Asn Ser
210 215 220
Val Val Glu Tyr Met Lys Lys Ala Glu Ala Arg Leu Asp Glu Glu Lys
225 230 235 240
Ala Arg Val Gly Leu Tyr Leu His Pro Asp Ile Met Lys Arg Leu Thr
245 250 255
Asp Thr Cys Leu Asp Val Leu Val Thr Ala His Ser Glu Leu Leu Arg
260 265 270
Asp Glu Phe Gln Val Leu Leu Asp Asn Glu Arg Gln Asp Asp Leu Ala

```
        275                 280                 285
Arg Met Tyr Arg Leu Leu Ser Arg Ile Lys Asp Gly Leu Asp Pro Leu
    290                 295                 300
Arg Ala Lys Phe Glu Thr His Val Arg Lys Ala Gly Leu Ala Ala Val
305                 310                 315                 320
Glu Lys Val Ala Ala Glu Gly Glu Ala Phe Glu Pro Lys Met Tyr Val
                325                 330                 335
Asp Ala Leu Leu Gln Val His Thr Arg Tyr Gln Asn Leu Val Asn Glu
            340                 345                 350
Ala Phe Asn Gly Glu Ser Glu Phe Val Arg Ser Leu Asp Asn Ala Cys
        355                 360                 365
Arg Glu Phe Val Asn Arg Asn Lys Val Cys Lys Ser Ser Ser Thr Lys
    370                 375                 380
Ser Pro Glu Leu Leu Ala Arg Tyr Thr Asp Ser Leu Leu Lys Lys Gly
385                 390                 395                 400
Ser Lys Ala Ala Glu Glu Ser Glu Leu Glu Glu Met Leu Val Gln Ile
                405                 410                 415
Met Thr Val Phe Lys Tyr Ile Glu Asp Lys Asp Val Phe Gln Lys Phe
            420                 425                 430
Tyr Ser Lys Met Leu Ala Lys Arg Leu Val His Val Ser Ser Val Ser
        435                 440                 445
Asp Asp Ala Glu Thr Ser Met Ile Ser Lys Leu Lys Glu Ala Cys Gly
    450                 455                 460
Phe Glu Tyr Thr Asn Lys Leu Gln Arg Met Phe Gln Asp Ile Gln Ile
465                 470                 475                 480
Ser Lys Asp Leu Asn Ser Asn Tyr Lys Asp Trp Gln Glu Lys Val Leu
                485                 490                 495
Asp Glu Asp Asp Arg Lys Lys Gln Val Asp Ala His Phe Gln Ile Leu
            500                 505                 510
Gly Thr Gly Phe Trp Pro Leu Asn Pro Pro Thr Thr Gly Phe Ser Ala
        515                 520                 525
Pro Pro Glu Ile Val Lys Thr Tyr Glu Arg Phe Gln Ser Phe Tyr Tyr
    530                 535                 540
Asp Lys His Asn Gly Arg Lys Leu Thr Trp Leu Trp Gln Leu Cys Lys
545                 550                 555                 560
Gly Glu Val Lys Ala Asn Tyr Ile Lys Asn Thr Lys Val Pro Tyr Thr
                565                 570                 575
Phe Gln Val Ser Thr Phe Gln Met Gly Ile Leu Leu Leu Phe Asn Glu
            580                 585                 590
Asn Asp Thr Leu Thr Tyr Ser Asp Ile Gln Lys Xaa Thr Ser Leu Ala
        595                 600                 605
Pro Glu Ile Leu Asp Pro Asn Leu Ala Ile Leu Leu Lys Ala Lys Val
    610                 615                 620
Leu Leu Pro Ser Pro Glu Gly Ala Lys Pro Glu Pro Gly Thr Ser Phe
625                 630                 635                 640
Ser Leu Asn Tyr Asn Phe Lys Asn Lys Lys Ile Lys Val Asn Leu Asn
                645                 650                 655
Ile Gln Ile Lys Ser Glu Gln Lys Val Glu Ser Asp Asp Thr His Lys
            660                 665                 670
Thr Ile Glu Glu Asp Arg Lys Leu Leu Leu Gln Val Cys Ile Ser Gln
        675                 680                 685
Asp Leu Pro Leu Pro Arg Pro Gln Leu Ile Glu Leu Ser Ser Pro Pro
    690                 695                 700
Ser Phe Ala
705
```

<210> 31227
<211> 133
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (31)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31227
Cys His Ser Ser Tyr Val Phe Leu Pro Asn Gln Asn Pro His Gln Leu
1 5 10 15
Ala Ser Tyr Arg Ala Ile Pro Phe Ser Ser Lys Ser Leu Thr Xaa Asn
20 25 30
Asn His Asn His Asn Arg His Asp Thr Thr Arg His Asp Thr Thr Arg
35 40 45
Gln Gly Lys Lys Thr Tyr Lys Met Lys Leu Gln Leu Asn Pro Thr Thr
50 55 60
Leu Leu Leu Ala Thr Leu Ala Leu Thr Ser Gln Leu Ala Arg Ala Asp
65 70 75 80
Leu Ser Tyr Tyr Cys Glu Met Ala Lys Asp Gly Thr Asn Met Ile Gln
85 90 95
Lys Ala Tyr Cys Cys Asp Asp Leu Val Pro Ala Arg Tyr Ala Glu Arg
100 105 110
Phe Leu Gln Gly Glu Lys Cys Thr Pro Leu Ile Leu Gly Ser Cys Pro
115 120 125
Cys Cys Ile Leu Arg
130

<210> 31228
<211> 80
<212> PRT
<213> A.fumigatus

<400> 31228
Ile Tyr Pro Phe Glu Val Gln Ile Asn Ile Arg Ser Tyr His His Pro
1 5 10 15
Pro Leu Ala Ser Leu Leu Phe Pro His Ser Pro Gln Glu Thr Ala Arg
20 25 30
Gly Thr Tyr Asn Arg Ile Thr Thr Asn Arg His Arg Pro Ile Ile Gly
35 40 45
Thr Leu Ile Pro His Arg Leu Arg Ile Arg Lys Arg Thr Tyr Thr His
50 55 60
Pro Ile Thr Ser Val Ile Ala Val Cys Asn Lys Asp Lys Asn Gln Gly
65 70 75 80

<210> 31229
<211> 552
<212> PRT
<213> A.fumigatus

<400> 31229
Gln Leu Val Ser Phe Gln Pro Gly Gly Glu Asp Arg Leu Glu Asn Leu
1 5 10 15
Ser Trp Arg Leu Trp Thr Arg Glu Thr Phe Cys Val Glu Pro Asp Lys

```
            20                  25                  30
Ser Ser Asp Thr Ser Val Leu Pro Leu Leu Arg Ser Glu Ala Gly Asp
        35                  40                  45
Leu Pro Glu Leu Ser Ala Ser Val Glu Ser Ala Ala Ser Glu Gln Ala
    50                  55                  60
Glu Arg Ile Glu Ser His Ile Lys Arg Ser Arg Cys Asp Leu Lys Pro
65                  70                  75                  80
Ala Val Val Arg Glu Asp Ser Phe Ser Tyr Leu Gly Arg Gly Lys Glu
                85                  90                  95
Lys His Ile Thr Ser Leu Gly Leu Glu Arg Met Val Leu Asn Ile Lys
            100                 105                 110
Glu Lys Lys Asn Leu Glu Pro Leu Asp Pro Pro Met Thr Thr Val Ala
        115                 120                 125
Pro Pro Val Val Asp Leu Thr Pro Arg Pro Ser Thr Leu Ser Pro Thr
    130                 135                 140
Pro Pro Ser Glu Ser Thr Ala Lys Arg Thr Pro Ser Phe Pro Pro Phe
145                 150                 155                 160
Asn Asn Gln Ala Leu His Ser Thr Ala Ser Cys Ser Thr Thr Ala Pro
                165                 170                 175
Glu Gly Asn Asp Ser Asp Ala Ala Asn Val Asn Ala Ser Asp Thr Ser
            180                 185                 190
Val Ser Ser Ser Gly Met Leu Pro Ser Arg Ser Cys Leu Ile Lys Ser
        195                 200                 205
Pro Ser Val Val Arg Gly Phe Ser Pro Ser Leu Val Ser Ser Ser Tyr
    210                 215                 220
Arg Ser Gln Pro Arg Leu Ala Ala Asp Pro Gly Pro Ala Gln Gln Pro
225                 230                 235                 240
Ala Gln Leu Lys Pro Thr Pro Phe Lys Lys Lys Gly Gly Met Phe Thr
                245                 250                 255
Leu Gly Gly Ser Ser Gly Asp Asp Asp Glu Ser Ser Phe Glu Asp Arg
            260                 265                 270
Ile Ala Ile Gln Lys Pro Gln His Ser Ser Leu Ser Asn Glu His Ser
        275                 280                 285
Lys Ser Ala Asn Thr Asn Pro Ser Pro Ser Lys Lys Val Thr Ser Phe
    290                 295                 300
Gln Glu Gln Val Gly Ile Ile Lys Pro Val Ser Glu Arg Ser Tyr Asp
305                 310                 315                 320
Asn Asp Glu Asp Ala Ile Glu Thr Glu Asp Glu Val Ser Glu Ser Ala
                325                 330                 335
Ile Glu Asp Asp Glu Asp Ser Asp Trp Glu Asp Ser Val Thr Glu Ser
            340                 345                 350
Gly Arg Ser Ser Val Glu Glu Arg Glu Leu Phe Lys Arg Val Asp Ser
        355                 360                 365
Arg Pro Asn Leu Val Ser Arg Arg Ser Leu Leu Thr Met Met Met His
    370                 375                 380
Gln Pro Thr Lys Met Gln Gly Pro Ala Ser Arg Ser Ser Pro Ala Leu
385                 390                 395                 400
Gln Arg Ser Arg Leu Thr Ser Pro Asn Gly Pro Ser Ile Pro Ala Ser
                405                 410                 415
Pro Pro Glu Asp Glu Glu Glu Ser Leu Thr Met Arg Gly Pro Asp Val
            420                 425                 430
Pro Arg Ser Lys Pro Ile Ile Val Lys Pro Ser Pro Gln Ser Val Ala
        435                 440                 445
His Ser Pro Arg Thr Thr Arg Arg Asn Met Leu Ala Thr Glu Leu Thr
    450                 455                 460
Glu Ser Leu Arg Arg His Leu Leu Trp Glu Arg Gln Gln Lys Ser Ala
```

```
465                 470                 475                 480
Thr Ala Asn Ala Phe Leu Lys Arg Arg His Thr Thr His Asp Met Ala
                485                 490                 495
Asn Leu Gln Glu Tyr Pro Glu Pro Asn Gly Ala Leu Lys Gly Gln Thr
            500                 505                 510
Ser Gln Gln Asn Ala Gly Val Pro Asn Gly Thr Ser Ala Lys Ala His
        515                 520                 525
Ala Glu Lys Asp Val Ala Ser Phe Asn His Tyr Thr Asp Phe Gly Pro
    530                 535                 540
Trp Glu Tyr His Val Glu Gly Trp
545                 550
```

<210> 31230
<211> 138
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (129),(132),(137),(138)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31230

```
Ser Ser Ser Leu Gln Ser Lys Gly Leu Arg Arg Arg Ser Thr Arg Ser
1                   5                   10                  15
Pro Ile Arg Pro Thr Ala Thr Val Pro Thr Thr Leu Phe Ser Arg Ser
            20                  25                  30
Asn Ser Phe Leu Ala Thr Ala Ala Thr Ser His Ser Pro Leu Arg Ile
        35                  40                  45
Cys Ser Trp Ala Gly Thr Lys Leu Arg Thr Ser Ala Arg Met Val Met
    50                  55                  60
Thr Thr Cys Ser Ala Thr Glu Thr Thr Leu Gln Pro Val Thr Ser Ala
65                  70                  75                  80
Thr Val Ile Pro Pro Leu Val Leu Leu Ala Ala Leu Arg Ser Thr Trp
                85                  90                  95
Ser Glu Pro Thr Pro Ala Val Thr Ala Ser Phe Asn Phe Leu Ala Leu
            100                 105                 110
Ala Lys Arg Ser Gly Leu His His Gly Ala Gly Lys Cys Arg Ser Ile
        115                 120                 125
Xaa Lys Pro Xaa Arg Arg Ser Gln Xaa Xaa
    130                 135
```

<210> 31231
<211> 310
<212> PRT
<213> A.fumigatus

<400> 31231

```
Arg Pro Glu Arg Leu Ala Lys Ala Lys Lys Leu Lys Leu Ala Val Thr
1                   5                   10                  15
Ala Gly Val Gly Ser Asp His Val Asp Leu Asn Ala Ala Asn Lys Thr
            20                  25                  30
Asn Gly Gly Ile Thr Val Ala Glu Val Thr Gly Cys Asn Val Val Ser
        35                  40                  45
Val Ala Glu His Val Val Met Thr Ile Leu Ala Leu Val Arg Asn Phe
    50                  55                  60
```

```
Val Pro Ala His Glu Gln Ile Arg Asn Gly Glu Trp Asp Val Ala Ala
65                  70                  75                  80
Val Ala Lys Asn Glu Phe Asp Leu Glu Asn Lys Val Val Gly Thr Val
                85                  90                  95
Ala Val Gly Arg Ile Gly Glu Arg Val Leu Arg Arg Leu Lys Pro Phe
            100                 105                 110
Asp Cys Lys Glu Leu Leu Tyr Tyr Asp Tyr Gln Pro Leu Arg Pro Glu
        115                 120                 125
Val Glu Lys Glu Ile Gly Cys Arg Arg Val Glu Asn Leu Glu Glu Met
    130                 135                 140
Leu Ala Gln Cys Asp Val Val Thr Ile Asn Cys Pro Leu His Glu Ser
145                 150                 155                 160
Thr Arg Gly Leu Phe Asn Lys Glu Leu Ile Ser Lys Met Lys Lys Gly
                165                 170                 175
Gly Phe Trp Leu Ser Ser Phe Pro Leu Ala Asn Ala Ile Ser Ala Asn
            180                 185                 190
Cys Leu Ser Leu Gly Ser Trp Leu Val Asn Thr Ala Arg Gly Ala Ile
        195                 200                 205
Val Val Lys Glu Asp Val Ala Glu Ala Val Lys Ser Gly His Leu Arg
    210                 215                 220
Gly Tyr Gly Gly Asp Val Trp Phe Pro Gln Pro Ala Pro Lys Asp His
225                 230                 235                 240
Pro Leu Arg Tyr Val Gln Gly Pro Trp Gly Gly Gly Asn Ala Met Val
                245                 250                 255
Pro His Met Ser Gly Thr Ser Ile Asp Ala Gln Ile Arg Tyr Ala Gln
            260                 265                 270
Gly Thr Lys Ala Ile Leu Glu Ser Tyr Phe Ser Gly Arg His Asp Tyr
        275                 280                 285
Lys Pro Glu Asp Leu Ile Val Lys Asp Gly Asp Tyr Val Thr Lys Ala
    290                 295                 300
Tyr Gly Gln Arg Gln Lys
305                 310

<210> 31232
<211> 86
<212> PRT
<213> A.fumigatus

<400> 31232
Met Ala Leu Ile Ile Leu Val Ile Ile Ala Ile Val His Glu Pro Leu
1               5                   10                  15
Leu Glu Val Ser Ala Glu Ser Ala Thr Cys Val Cys Arg Ile Ala Pro
            20                  25                  30
Ser Phe Lys Arg Phe Pro Pro Arg Arg Ile His Ile His Pro Asp His
        35                  40                  45
Asp Phe Pro Leu Leu Val Lys Tyr Ala Asn Val Ile Val Leu Cys Val
    50                  55                  60
Gly Leu Pro Pro Pro Arg Arg Trp Gln Glu Glu Ala His Asp Ser Ile
65                  70                  75                  80
Gly Tyr Thr Ile Ser Gln
                85

<210> 31233
<211> 141
<212> PRT
<213> A.fumigatus
```

<400> 31233
Ala Leu Gly Ser Ser Thr Leu Pro Val Val Leu Leu Leu Ser Arg Arg
1 5 10 15
Thr Leu Pro Arg Pro Ser Ser Pro Ala Thr Ser Ala Val Thr Val Val
20 25 30
Met Ser Gly Ser Leu Ser Leu Pro Pro Arg Thr Thr Leu Phe Gly Thr
35 40 45
Ser Arg Ala Leu Gly Ala Val Val Thr Pro Trp Phe Leu Thr Cys Pro
50 55 60
Val Pro Gln Ser Thr Pro Arg Ser Val Thr Pro Arg Val Pro Arg Pro
65 70 75 80
Ser Ser Lys Ala Thr Ser Pro Val Ala Thr Thr Thr Asn Pro Arg Ile
85 90 95
Ser Ser Ser Arg Thr Val Thr Thr Ser Pro Arg Leu Thr Ala Arg Asp
100 105 110
Arg Ser Lys Arg His Asn His Phe Met Lys Arg Met Thr Glu Cys Ile
115 120 125
Tyr Ser Tyr Thr Phe Leu Phe Gly Phe Arg Ser Ser Phe
130 135 140

<210> 31234
<211> 74
<212> PRT
<213> A.fumigatus

<400> 31234
Leu Gln Ser Ala Leu Tyr Arg Phe Thr Phe Ser Phe Ser Gln Tyr Leu
1 5 10 15
Gln Thr Phe Ile Val Leu Ala Ser Gln Thr Leu Ser Asp His Ile Ser
20 25 30
His His Ala Ala Ala Ala Ala Phe Leu Ala Ser Val Pro Arg Arg Pro
35 40 45
Ser Tyr Pro Pro Gly Asn Lys Arg Ile Gln Arg Arg Arg Glu Tyr Gln
50 55 60
Glu His Ser Gly Thr Gln Asp His Leu Pro
65 70

<210> 31235
<211> 148
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (88),(89)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31235
Gln Ala Arg Gly Leu Arg Gly Ala Ser Ile Pro Thr Lys Ala Arg Leu
1 5 10 15
Thr Tyr Phe Gln Asp Lys Ser Leu Thr Leu Asp Leu Gln Tyr Lys Ser
20 25 30
Glu Asp Thr Trp Thr Asn Cys Phe Thr Leu Asn Ala Pro Glu Thr Asn
35 40 45
Ile Ala Ile Pro Ala Val Ser Tyr Leu Gly Phe Ser Ala Glu Thr Gly

```
    50                  55                  60
Glu Leu Ser Asp Asn His Asp Ile Ile Ser Val Asn Ala Lys Asn Leu
65                  70                  75                  80
Tyr Ser Ile Gly Gly Asn Ala Xaa Xaa Thr Phe Gly Arg Gly Pro Ala
                85                  90                  95
Asn Asn Gly Arg Gln Asp Gln Ala His Val Lys Leu Pro Lys Gln Lys
            100                 105                 110
Gly Gly Trp Gly Trp Phe Leu Phe Lys Phe Ile Leu Phe Leu Gly Ala
        115                 120                 125
Ile Val Gly Ala Tyr Val Gly Phe Thr Met Tyr Arg Thr Lys Gln Arg
    130                 135                 140
Tyr Ser Arg Phe
145
```

<210> 31236
<211> 61
<212> PRT
<213> A.fumigatus

```
<400> 31236
Leu Leu Arg Leu Tyr Pro Ile Thr Ser Val Ile Met Leu Pro Pro Arg
1               5                   10                  15
Leu Ser Ser Leu Leu Tyr Leu Ala Gly Leu Ala Thr Leu Pro Val Thr
            20                  25                  30
Ser Ala Tyr Asn Gly Asp Glu Asn Ile Lys Ser Ile Pro Val Arg Lys
        35                  40                  45
Ile Ile Phe His Glu Cys Ala Asn Ala Pro Arg Ile Arg
    50                  55                  60
```

<210> 31237
<211> 95
<212> PRT
<213> A.fumigatus

```
<400> 31237
Arg Val Thr Gln Ile Glu Val Glu Phe Asn Ile His Gly Gln Gly Asn
1               5                   10                  15
Leu His Gly Asp Gly Phe Ala Met Trp Leu Thr Lys Gln Arg Ala Thr
            20                  25                  30
Gln Gly Pro Val Phe Gly Ser Thr Asp Asn Phe Glu Gly Leu Gly Ile
        35                  40                  45
Phe Phe Asp Thr Tyr Lys Asn Asn Arg Pro Gly Thr Ser Phe Pro Tyr
    50                  55                  60
Val Met Ala Met Met Gly Asp Gly Lys Thr Ser Tyr Asp Gln Ala His
65                  70                  75                  80
Asp Gly Lys Ala Asn Glu Val Ala Gly Cys Ser Val Ser Leu Ser
                85                  90                  95
```

<210> 31238
<211> 61
<212> PRT
<213> A.fumigatus

```
<400> 31238
Ile Gln Ser Thr Asp Thr Pro Gln Ser Thr Ser Leu Pro Thr Pro Asn
1               5                   10                  15
```

```
Pro Phe Arg Arg Pro Gln Asn Gln Asn Thr Ser Ser Lys Met Ala Ile
            20                  25                  30
Trp Gly Ser Ser Ser Ser Asn Thr Ala Ser Ser Gly Glu Ala Asp Ile
        35                  40                  45
Lys Thr His Leu Met Asn His Val Arg Gln Glu Ala Tyr
    50                  55                  60

<210> 31239
<211> 414
<212> PRT
<213> A.fumigatus

<400> 31239
Ser Leu Thr Pro Lys Arg Glu Arg Asp Asn Ala Leu Ser Ile Leu Gly
1               5                   10                  15
Arg Leu His Ile Met Thr Ser Thr Thr Thr Ser Asp Asn Ile Lys Ala
            20                  25                  30
Tyr Thr Val Thr Asp Pro Phe Ala Ser Ser Leu Arg Gln Ala Leu Thr
        35                  40                  45
Gly Ala Glu Gln Thr Gln Ser Phe Gly Val Leu Ser Gln Ile Ser Asp
    50                  55                  60
Lys Glu Ala Val Ser Ile Ala Asp Leu Asp Glu Tyr Ser Arg Arg Gln
65                  70                  75                  80
Trp Glu Gly Val Leu Gly Tyr Met Val Gly Thr Ser Gly Leu Gly Met
                85                  90                  95
Gln Arg Asp Val Ser Leu Ser Lys Gly Val Lys Glu Leu Leu Gln Ala
            100                 105                 110
Gly His Leu Val Glu Ile Arg Asp Arg Arg Val Glu Ile Thr Gln Asp
        115                 120                 125
Gly Phe Ala Phe Ala Leu Gln Asp Val Gly Thr Gln Val Trp His Ile
    130                 135                 140
Leu Val Leu Tyr Val Glu Ser Ala Ala Ala Ile Gly Met Asp Ser Val
145                 150                 155                 160
Glu Val Leu Ser Phe Val Phe Phe Leu Ser Ser Leu Glu Leu Gly Lys
                165                 170                 175
Ser Tyr Glu Lys Lys Gln Leu Thr Ser Asn Gln Leu Arg Thr Leu Thr
            180                 185                 190
Asp Leu Ala Asp Phe Gly Ile Val Tyr Gln Glu Thr Pro Asp Ala Thr
        195                 200                 205
His Phe Tyr Pro Thr Arg Leu Ala Thr Thr Leu Thr Ser Asp Ser Ser
    210                 215                 220
Thr Leu Ser Asn Pro Leu Ala Gly Ser Leu Ser Gly Pro Thr Gly Thr
225                 230                 235                 240
Ser Ser Ser Lys Ala Gly Ser Gly Phe Ile Ile Ile Glu Thr Asn Tyr
                245                 250                 255
Arg Leu Tyr Ala Tyr Thr Ser Ser Pro Leu Gln Ile Ser Leu Ile Ala
            260                 265                 270
Leu Phe Thr Thr Leu Lys Tyr Arg Phe Pro Asn Leu Ile Thr Gly Lys
        275                 280                 285
Ile Thr Arg Gln Ser Val Arg Arg Ala Val Glu Met Gly Ile Thr Ala
    290                 295                 300
Asp Gln Ile Ile Ser Tyr Leu Ser Thr His Ala His Pro Gln Met Arg
305                 310                 315                 320
Lys His Asn Val Ser Arg Ser Thr Ser Asn Gln Ala Gly Met Pro Val
                325                 330                 335
Ser Val Leu Pro Pro Thr Val Val Asp Gln Ile Arg Leu Trp Gln Leu
```

```
            340                 345                 350
Glu Arg Asp Arg Val Lys Ala Thr His Gly Phe Leu Phe Arg Asp Phe
        355                 360                 365
Asn Thr Leu Ala Glu Tyr Glu Ala Pro Cys Arg Tyr Ala Glu Glu Ile
    370                 375                 380
Gly Val Leu Val Trp Lys Ser Asp Arg Lys Arg Met Phe Phe Val Thr
385                 390                 395                 400
Arg His His Gln Val Ala Ala Phe Leu Lys Thr Arg Arg Lys
                405                 410
```

<210> 31240
<211> 337
<212> PRT
<213> A.fumigatus

<400> 31240

```
Lys Gly Arg Ser Arg Arg Gly Ser Gly Val Val Gly Arg Asn Ser Ala
1               5                   10                  15
Asp Arg Gly Tyr Gly Ala Gly Arg Arg Phe Arg Arg Ser Glu Val Cys
            20                  25                  30
Phe Pro Phe Lys Ser Phe Leu Lys Asn Leu Asn Leu Ser Trp Pro Thr
        35                  40                  45
Asp Cys His Arg Phe Thr Gly Met Gly Val Gln Ala Leu Asp Leu Leu
    50                  55                  60
Gln Lys Lys Ala Ala Pro Ser Pro Phe Met Asp Glu Ala Ile Gln Arg
65                  70                  75                  80
Val Cys Asp Leu Ala Ile Ser Arg Asn Val Arg Leu Leu Val Asp Ala
                85                  90                  95
Glu Glu Gln Ala Val Gln Pro Gly Ile Glu Asn Trp Thr Met Lys Tyr
            100                 105                 110
Gln Lys Tyr Cys Asn Ser Gln Thr Pro Gly Arg Ala Ile Phe Tyr Asn
        115                 120                 125
Thr Tyr Gln Ala Tyr Leu Cys Ser Thr Pro Ala Thr Leu Ala Arg His
    130                 135                 140
Leu Glu Ile Ala Arg Gln Glu Gly Tyr Thr Leu Gly Val Lys Leu Val
145                 150                 155                 160
Arg Gly Ala Tyr Leu Lys Thr Glu Pro Arg His Leu Ile Trp Ser Thr
                165                 170                 175
Lys Glu Glu Thr Asp Ala Cys Tyr Asp Gly Ile Val Glu Ala Leu Leu
            180                 185                 190
Thr Arg Gln Tyr Asn Ser Met Leu Lys Pro Ala Ser Val Glu His Thr
        195                 200                 205
Thr Glu Leu Pro Pro Val Asn Val Ile Ile Ala Thr His Asn Arg Asp
    210                 215                 220
Ser Val Arg Lys Ala His Ala Leu Arg Leu Gln Gln Ala Ser Lys Gly
225                 230                 235                 240
Glu Asp Lys Gly Val Asp Leu Ser Tyr Ala Gln Leu Gln Gly Met Ala
                245                 250                 255
Asp Glu Val Ser Cys Glu Leu Leu Glu Gly Phe Gln Ser Pro Glu Pro
            260                 265                 270
Thr Gly Lys Asn Ser Phe Val Glu Ser Pro Asn Val Tyr Lys Leu Leu
        275                 280                 285
Thr Trp Gly Ser Val Lys Glu Cys Met Gly Phe Leu Leu Arg Arg Ala
    290                 295                 300
Val Glu Asn Thr Glu Ala Val Gly Arg Thr Lys Gln Ser Gln Glu Ala
305                 310                 315                 320
```

```
Met Phe Ala Glu Leu Lys Arg Arg Ala Arg Gln Ala Phe Arg Leu Ser
                325                 330                 335
Asn


<210> 31241
<211> 74
<212> PRT
<213> A.fumigatus

<400> 31241
Leu Ser Phe His His Ser Gly Asn Ser Ile Leu Ser Pro Glu Pro Thr
1               5                   10                  15
Thr Gly Leu Val Val Asp Pro Val Arg Trp Val Asp Pro Asp Ile Ile
            20                  25                  30
Lys Tyr His Cys Gly Trp Gln Ala Ala Pro Leu Cys Met Ser Ser Tyr
        35                  40                  45
Leu Arg Asn Asp Ile Ala Asp Arg Pro Gly Phe Gln Ala Val Ser Thr
    50                  55                  60
Gly Cys Thr Ile Thr Phe Phe Ser Thr Lys
65                  70

<210> 31242
<211> 230
<212> PRT
<213> A.fumigatus

<400> 31242
Phe Ser Ser Ile Asn Thr Ser Ala Ser Leu Ser Leu Ile Val Gly Phe
1               5                   10                  15
Ile Ala Gln Val Pro Pro Pro Val Ser Thr Thr Thr Met Lys Ala Ser
            20                  25                  30
Arg Arg Pro Leu Arg Ala Leu Ser Cys Met Pro Thr Thr Tyr Pro Thr
        35                  40                  45
Pro Arg Tyr Val Ser Gly Thr Ser Asn Ala Lys Ser Ser Ile Ala Ala
    50                  55                  60
Thr Pro Ala Thr Ser Leu Leu His Gln Val Pro Pro Ser Pro Lys Lys
65                  70                  75                  80
Glu Ala Thr Ser Pro Leu Ala Lys Leu Pro Leu Ser Ser Val Leu Arg
                85                  90                  95
Ser Leu Met Ile Leu Ser Val Ser Ser Ser Ser Leu Leu Leu Lys Pro
            100                 105                 110
Cys Ile Tyr Thr Leu Ser Val Leu Ala His Pro Lys Thr Pro Leu Leu
        115                 120                 125
Asp Val Ala Lys Asn Pro Leu Leu Asn Met Leu Val Lys His Thr Ile
    130                 135                 140
Tyr Lys Gln Phe Asn Ala Gly Glu Asn Lys Leu Glu Val Gln Gln Ser
145                 150                 155                 160
Ile Arg Asp Ile Lys Asn Leu Gly Tyr Arg Gly Val Leu Leu Gly Tyr
                165                 170                 175
Ala Lys Glu Val Leu Val Gly Glu Ser Asn Val Ser Pro Arg Asp Glu
            180                 185                 190
Lys Ala Ala Arg Glu Glu Val Gln Ala Trp Leu Asp Gly Thr Leu Gln
        195                 200                 205
Thr Val Asp Met Ala Gln Glu Gly Asp Phe Val Ala Leu Lys Tyr Val
    210                 215                 220
```

Ser Leu Leu Ser Leu Phe
225 230

<210> 31243
<211> 274
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (18),(44)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31243
Leu Ser Gln Cys Asn Arg Phe Arg Tyr Arg Val Thr Phe Phe Ala Pro
1 5 10 15
Thr Xaa Ile Thr Asp His Ala His Glu Pro Pro Val Thr Tyr Leu Asn
20 25 30
Lys Ser Gln Ser Tyr Ser Val Ser Ile Val Asp Xaa Thr Pro Pro Ala
35 40 45
His Ala Thr Gln Ser Val Lys Tyr Arg Thr Ser Val Arg Ile Thr Phe
50 55 60
Glu Glu Thr Ala His Arg Ser Asn Pro Ala Arg Cys Trp Arg Leu Trp
65 70 75 80
Lys Glu Ala Arg Gly Ala Val Glu Ala Gln Gln Arg Gly Gly Lys Met
85 90 95
Arg Ala Leu Glu Phe Val Asp Leu Arg Leu Gly Ser Lys Lys Asn Ala
100 105 110
Pro Arg Ile Lys Lys Val Asp Ser Ala Ser Phe Asp Gly Phe Cys Val
115 120 125
Thr Trp Thr Ser Thr Pro Glu Ala Gly Ser Ser Glu Cys Val Ile Asn
130 135 140
Val Arg Leu Asn Phe Leu Ser Thr Asp Phe Ser Leu Ser Lys Gly Val
145 150 155 160
Lys Gly Val Pro Thr Arg Leu Cys Val Lys Thr Glu Met Ile Gly Leu
165 170 175
Glu Asp Gly Thr Pro Ala Ser Gly Ser Asp Thr Glu Ala Glu Ile Cys
180 185 190
Tyr Cys Lys Val Lys Val Phe Arg Asp His Gly Ala Glu Arg Lys Leu
195 200 205
Ser Asn Asp Val Ala His Val Gln Lys Ala Ile His Lys Val Glu Arg
210 215 220
Gln Ile Ala Gln Gly Asp Ile Asp Gly His Asn Gly Leu Gly Lys Arg
225 230 235 240
Lys Arg Arg Lys Gly Val Gly His Gly Leu Thr Lys Asn His Ala Val
245 250 255
Ser Met Ser Leu Ser Pro Ser Arg Ser Asn Ser Leu Thr Gly Ile Asp
260 265 270
Asp Leu

<210> 31244
<211> 368
<212> PRT
<213> A.fumigatus

<400> 31244
Asn Asp Ala Arg Arg Pro Val Asp Leu Trp Arg Pro Ile Ser Ser Ile
1 5 10 15
Arg Arg Glu Glu Cys Thr Leu Glu Ala Asp Leu Asn Arg Ala Gln Ser
20 25 30
Gln Val Thr Ala Gln Gly Asn Ala Leu Lys Ala Met Ala Ala Glu Met
35 40 45
Pro Leu Glu Ala Gly Gly Arg Asn Thr Tyr Thr Glu Ile Leu Glu Leu
50 55 60
Ile Lys Asp Leu Asp Pro His Ser Thr Thr His Ser Ser Gly Lys Pro
65 70 75 80
Ser Leu Ser Arg Asp Ala Asp Ser Arg Asp Glu Ile Met Glu Glu Tyr
85 90 95
Arg Gln Asp Leu Ala Lys Ala Arg Ala Glu Leu Glu Glu Ala Ser Ser
100 105 110
Val Arg Lys Ala Leu Glu Leu Asp Leu Lys Arg Ser Gln Glu Gln Ala
115 120 125
Ala Glu Ala Gln Thr Leu Phe Lys Ser Val Glu Asp Glu Asn Thr Arg
130 135 140
Leu Thr Lys Gln Ile Asp Asp Leu Arg Thr Ser Leu Asp Lys Val Gln
145 150 155 160
Gly Glu Leu Gly Gln Met Lys Ala Glu His Ser Glu Ala Leu Glu Thr
165 170 175
Ile Asn Arg Leu Gln Thr Glu Arg Lys Thr Gln Gln Pro Ser Pro Pro
180 185 190
Pro Ser Pro Pro Thr Pro His Asn Ile Gly Gln Ala Glu Lys Leu Glu
195 200 205
Glu Ser Tyr Arg Ala Gln Leu Lys Ser Leu His Thr Ala His Ala Thr
210 215 220
Ala Ile Ser Thr Leu Arg Ser Ser His Ala Asp Ser Thr Arg Lys Leu
225 230 235 240
Arg Asp Leu Leu Ala Ala Ala Glu Lys Arg Glu Ser Lys Leu Lys Ala
245 250 255
Glu Val Gln Ser Leu Leu Ala Ala Arg Ala Ala Gln Asp Thr Gln Leu
260 265 270
Gln Ser Leu Asp Thr Glu Val Lys Arg Leu Gln Ser Ala Ile Ala Val
275 280 285
Lys Glu Glu Ala Ala Ala Ala Leu Asp Glu Arg Ile Ala Arg Ser Val
290 295 300
Glu Lys Arg Glu Lys Glu Trp Glu Arg Arg Val Asp Leu Leu Leu Lys
305 310 315 320
Glu Arg Glu Arg Met Ala Lys Ala Leu Met Trp Ala Trp Gly Glu Lys
325 330 335
Glu Val Gly Glu Val Lys Glu Asn Leu Gly Glu Asp Gly Arg Arg Val
340 345 350
Arg Gln Ala Tyr Arg Tyr Lys Tyr Ala Gln Arg Lys Gly Arg Glu Gly
355 360 365

<210> 31245
<211> 165
<212> PRT
<213> A.fumigatus

<400> 31245
Leu Ser Gly Ala Leu Cys Leu Ser Ala Met Ala Pro Ile Lys Arg Lys
1 5 10 15

```
Gly Asn Ala Gly Glu Glu Ala Val Thr Arg Gln Pro Gln Lys Arg Val
            20                  25                  30
Arg Val Gly Gly Ala Glu Gln Gly Lys Asp Gln Lys Lys Gln Arg Thr
        35                  40                  45
Ser Glu Ser Thr Ser Asp Leu Lys Pro Thr Glu Leu Thr Val Leu Arg
    50                  55                  60
Asp Asp Glu Pro Ser Phe Pro Arg Gly Gly Gly Ser Val Leu Thr Pro
65                  70                  75                  80
Leu Glu Lys Lys Gln Ile His Ile Gln Ala Thr Lys Asp Val Leu Phe
                85                  90                  95
Glu Gln Lys Gly Ser Lys Lys Ser Ser Asp Asn Phe Ala Val Gly Asp
            100                 105                 110
Asp Asp Glu Asp Ile Glu Met Asp Asp Ala Glu Asp Asn Ala Thr Ser
        115                 120                 125
Thr Lys Leu Ser Arg Lys Arg Lys Ala Lys Ser Lys Lys Arg Ala Lys
    130                 135                 140
Glu Glu Ala Asn Glu Lys Gln Gly Val Arg Ile Glu Gly Leu Asn Phe
145                 150                 155                 160
Lys Val Gly Pro His
                165
```

<210> 31246
<211> 64
<212> PRT
<213> A.fumigatus

<400> 31246

```
Leu Ile Gly Thr Gly Ser Gln Lys Asn Ser Gly Tyr Lys Lys Phe Leu
1               5                   10                  15
Asp Leu Cys Arg Gln Thr Ala Phe Arg Ile Lys Tyr Asn Pro Ile Thr
            20                  25                  30
Leu Ile Glu Glu Ser Thr Ala Tyr Trp Lys Lys Gln Leu Ala Ser Arg
        35                  40                  45
Lys Lys His Val Asp Thr Arg Leu Ile Cys Ser Ala Ala Arg Asp Ala
    50                  55                  60
```

<210> 31247
<211> 67
<212> PRT
<213> A.fumigatus

<400> 31247

```
Arg Thr Asp Leu Val Pro Arg Ser Asp Gln Leu Asp Thr Tyr Thr Val
1               5                   10                  15
Glu Pro Ser Leu Asn Lys Lys Thr Leu Ser Pro Ser Ser Ser Pro Ser
            20                  25                  30
Glu Ile Val Asn Phe Thr Pro Ala Arg Leu Val Leu Ser Pro Val Lys
        35                  40                  45
Leu Val Val Pro Leu Phe Pro Ser Pro Ser Pro Leu Phe Asn Gly Ser
    50                  55                  60
Thr Thr Gly
65
```

<210> 31248
<211> 442
<212> PRT

<213> A.fumigatus

<220>
<221> UNSURE
<222> (420),(432)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31248

```
His Arg Val Gly Val Leu Ser Asp Arg Gly Thr Trp Ser Cys Leu Tyr
1               5                  10                  15
Glu Gly Cys Gly Phe Gly Ser Ala Ser Ser Gln Ile Val Val Ala Met
            20                  25                  30
Ala Pro Ser Ile Trp Glu Lys Ala Lys Val Gly Gly Lys Lys Gly Phe
        35                  40                  45
Asp Lys Ala Trp Asn Thr Val Asp Lys Leu Gly Ala Pro Val Asn Arg
    50                  55                  60
Leu Ser Asn Arg Val Gly Ala Glu Ala Phe Trp Pro Met Thr Leu Asp
65                  70                  75                  80
Lys Glu Ser Asp Lys Ala Ala Arg Ile Leu Arg Ser Phe Cys Lys Asp
                85                  90                  95
Gly Phe Tyr Thr Lys Glu Asp Leu Glu Gln Asn Gly Thr Asp Ser Asp
            100                 105                 110
Gly Lys Ile Asn Arg Pro Lys Gly Lys Gln Arg Val Ile Lys Lys Ile
        115                 120                 125
Pro Ala Pro Val Ile Gln Arg Ala Val Gly Leu Ala Ile Phe Thr Thr
    130                 135                 140
Met Arg Thr Gly Leu Trp Leu Ser Gly Ser Gly Gly Ser Gly Val Leu
145                 150                 155                 160
Leu Ala Arg Ile Pro Glu Thr Gly Glu Trp Ser Pro Pro Ser Gly Ile
                165                 170                 175
Met Leu His Thr Ala Gly Ile Gly Phe Leu Ala Gly Val Asp Ile Tyr
            180                 185                 190
Asp Cys Val Val Val Ile Asn Thr Phe Glu Ala Leu Glu Ala Phe Lys
        195                 200                 205
Lys Val Arg Cys Thr Leu Gly Gly Glu Val Ser Ala Ala Ala Gly Pro
    210                 215                 220
Tyr Gly Val Gly Gly Val Leu Glu Ser Glu Val His Lys Arg Gln Ala
225                 230                 235                 240
Pro Ile Trp Thr Tyr Met Lys Ser Arg Gly Leu Tyr Ala Gly Val Gln
                245                 250                 255
Val Asp Gly Thr Ile Ile Ile Glu Arg Thr Asp Glu Asn Glu Arg Phe
            260                 265                 270
Tyr Gly Glu Arg Ile Ser Val Thr Asp Ile Leu Ala Gly Lys Ala Lys
        275                 280                 285
Arg Pro Pro Arg Ser Ile Gln Thr Leu Ile Gln Thr Ile Lys Ala Ala
    290                 295                 300
Gln Gly Asp Ser Asp Val Glu Glu Ser Trp Ile Pro Pro Pro Gly Gln
305                 310                 315                 320
Thr Pro Gly Asp Val Glu Val Gln Pro Ala Thr Leu Phe Gly Val Pro
                325                 330                 335
Asp Pro Asp Asp Pro Asp Pro Phe Gly Val Lys Ala Leu Glu Ala Glu
            340                 345                 350
Gly Leu Phe Ile Arg Glu Ala Gly Thr Arg Ser Arg Pro Ser Tyr Asp
        355                 360                 365
Val Phe Glu Phe Lys Pro Ser Pro His Ser Pro Ile Tyr Ser Thr Phe
    370                 375                 380
```

```
Arg Arg Ser Leu Asp Ser Ser Pro Arg Ser Ser Trp Arg Ala Ser Val
385                 390                 395                 400
Gln Ser His Ala Ser Val Asp Arg Gly Thr Gln Thr Asp Val Ala Ser
                405                 410                 415
Phe Thr Ala Xaa Thr Ser Ile Cys Arg Ala Ser Ala Arg Ser Ser Xaa
            420                 425                 430
Ser Met Ser Gln Gln Ser Arg Thr Ile Ala
        435                 440
```

<210> 31249
<211> 198
<212> PRT
<213> A.fumigatus

<400> 31249

```
Lys Cys Ser Glu Val Asn Ser Phe Ser Pro Ala Ala Leu Glu Thr Glu
1               5                  10                  15
Asp Ile Glu Val Ser Asp Ala Pro Gln Pro Gly Ile Ser Glu Pro Ala
            20                  25                  30
Ala Pro Val Gly Ala Ala Ala Ala Gln Val Lys Glu Thr Lys Pro Glu
        35                  40                  45
Glu Glu Ser Arg Glu Asp Glu Ala Pro Gly Ala Ala Ser Pro Glu Glu
    50                  55                  60
Glu Ile Pro Glu Glu Glu Ser Pro Gln Glu Glu Ser Pro Gln Glu Glu
65                  70                  75                  80
Ser Pro Gln Glu Glu Ser Pro Glu Glu Glu Ala Pro Gly Val Ala Ser
                85                  90                  95
Pro Glu Leu Gln Pro Arg Ser Gly Val Arg Thr Tyr Gly Lys Gly Arg
            100                 105                 110
Arg Phe Pro Ala Gly Glu Thr Ala Glu Ala Phe Glu Thr Glu Asn Ile
        115                 120                 125
Pro Trp Thr Lys Gly Asp Pro His Asp Trp Pro Trp Trp Thr Tyr Pro
    130                 135                 140
Leu Pro Asn Gly Gly Ala Ile Met Ala Glu Lys Lys Thr Lys Glu Arg
145                 150                 155                 160
Thr Gly Gly Gly Arg Leu Pro Leu Ala Ile Thr Leu Leu Lys Phe Gln
                165                 170                 175
Cys Ser Lys Thr Lys Asp Gly Gly Val Leu Arg Cys Ile Ser Ile Thr
            180                 185                 190
Leu Val Arg Tyr Tyr Asp
        195
```

<210> 31250
<211> 107
<212> PRT
<213> A.fumigatus

<400> 31250

```
Val Arg Thr Pro Asp Leu Gly Cys Ser Ser Gly Glu Ala Thr Pro Gly
1               5                  10                  15
Ala Ser Ser Ser Gly Asp Ser Ser Trp Gly Asp Ser Ser Trp Gly Asp
            20                  25                  30
Ser Ser Trp Gly Asp Ser Ser Ser Gly Ile Ser Ser Ser Gly Glu Ala
        35                  40                  45
Ala Pro Gly Ala Ser Ser Ser Arg Asp Ser Ser Ser Gly Phe Val Ser
    50                  55                  60
```

```
Phe Thr Cys Ala Ala Ala Ala Pro Thr Gly Ala Ala Gly Ser Asp Ile
65                  70                  75                  80
Pro Gly Cys Gly Ala Ser Leu Thr Ser Met Ser Ser Val Ser Ser Ala
                85                  90                  95
Ala Gly Leu Asn Glu Phe Thr Ser Glu His Phe
            100                 105
```

<210> 31251
<211> 658
<212> PRT
<213> A.fumigatus

<400> 31251

```
Glu Val Leu Thr Ala Gly Thr Ala Glu Glu Gly His Ala Glu Arg Tyr
1                   5                   10                  15
Thr Val Ala Ser Gln Tyr Leu Asn Leu Cys Lys Thr Ile His Gly Gln
            20                  25                  30
Ser Ser Pro Ala Thr Arg Asp Ala Thr Leu Arg Leu Ala Glu Ile Cys
        35                  40                  45
Glu Gln Ser Asp Ser His Leu Glu Glu Ala Leu Ala Leu Tyr Arg His
    50                  55                  60
Val Leu Gln Thr Lys Glu Trp Val Pro Pro Thr Gln Ala Ser Arg Ala
65                  70                  75                  80
Leu Pro Asp Met Thr Asp Pro Thr Ala Lys Met Val Lys His Lys Leu
                85                  90                  95
Ala Gln Ile Tyr Leu Arg Lys Lys Ser Thr Ser Asp Glu Ala His Gly
            100                 105                 110
Leu Tyr Met Glu Glu Leu Thr Leu Ser Lys Gln Gln Arg Gly Leu Ser
        115                 120                 125
Ser Ser Pro Thr Met Leu Trp Leu Arg Glu Val Ala Leu Val Tyr Ala
    130                 135                 140
Leu Lys Asp Thr Ile Glu Ala Arg Asn Gln Gly Ala Thr Leu Leu Arg
145                 150                 155                 160
Asp His Val Asn Glu Val Ile His Val Thr Ala Ser Arg Glu Ala Val
                165                 170                 175
Val Glu Arg Ala His Arg Leu Ala Glu Ile Tyr Leu Glu Cys Gly Tyr
            180                 185                 190
Lys Asp Ala Gly Tyr Asp Leu Ile Asp Glu Leu His Lys Lys Val Ile
        195                 200                 205
Leu Asp Thr Ser Ala Ala Gln Arg Leu Ala Leu Asn Glu Tyr Arg Pro
    210                 215                 220
Ala Val Phe Val Ala Ala Phe Glu Glu Lys Phe Gly Lys Lys Met Thr
225                 230                 235                 240
Tyr Ser Gln Ile Leu Asp Ala Leu Ser Gln Glu Ser Gly Val Tyr His
                245                 250                 255
Glu Tyr Gln Thr Ser Leu Ser Arg His Asp Leu Val Thr Thr Leu Val
            260                 265                 270
Ala Gly Gln Lys Leu His Val Leu Gln Thr Glu Gln Arg Arg Thr Thr
        275                 280                 285
Ala Ala Thr Lys Thr Gln Gly Ser Leu Tyr Glu Tyr Phe Cys Asn Ser
    290                 295                 300
Leu Ser Val Ser Ser Ser Leu Arg Ser Arg Asp Val Val His Gln Phe
305                 310                 315                 320
Tyr Asn Leu Cys Arg Arg Glu Val Leu Asn Ala Asp Tyr Asn Ile Asn
                325                 330                 335
Ile Ile Thr Glu Thr Thr His Met Val Arg Asp Leu Cys Asp Ser Ser
```

```
            340                 345                 350
Arg Phe Gln Asp Ala Ala Glu Leu Thr Gly Val Phe His Ser Phe Val
        355                 360                 365
His Leu Thr Asp Gly Leu Asn Ser His Glu Ala Ile Phe Thr Ala Ile
    370                 375                 380
Lys Leu Cys Leu Tyr Leu Asn Gly Tyr Gln Thr Ser Lys Cys Ser Asp
385                 390                 395                 400
Ser Gly Lys Ala Lys His Met Ala Phe Glu Ser Gln Met Leu Leu Gln
                405                 410                 415
Glu Ile Met Asp Arg Ala Arg His Leu Lys Ile Glu Phe Ser Glu Leu
            420                 425                 430
Pro Phe Ala Glu Leu Asn Asp Leu Ala Thr Val Leu Gly Glu His Glu
        435                 440                 445
Met Phe Asp Asp Leu Glu Val Tyr Asp Pro Tyr Pro Phe Cys Leu Pro
    450                 455                 460
Asp Tyr Met His Met Leu Ile Ala Pro Gly His Pro His Arg Pro Leu
465                 470                 475                 480
Asp Leu Ala Ser Arg Pro Lys Asn Met Val Phe Gln His Asp Arg Leu
                485                 490                 495
Asp Arg Pro Ala Ser Gly Gly Asn Pro Phe Leu Pro Arg Ala His Arg
            500                 505                 510
Arg Gly Asn Ala Ala Arg Gln Gly Tyr Leu Leu Gln Pro Pro Thr Gly
        515                 520                 525
Leu Gly Gln Leu Arg Pro Arg His Ala Gly Asp Asp Gln Ala Ala Val
    530                 535                 540
Arg Pro Val His Gly Val Gly Glu Pro Pro Gly Gly Arg Gly Ala Ala
545                 550                 555                 560
Arg Asp Gly Ala Ala Arg Ala Pro Gln Arg His Arg His Arg Pro Gly
                565                 570                 575
Ala Cys Gly Arg Arg Arg Gln Pro Ala Ser Ala Ala Ala His Ala Arg
            580                 585                 590
Ala Val Ala Ala Pro Gln Gly Glu Gln Ser Gly Arg Gly His Gln Arg
        595                 600                 605
Val Arg Arg Ala Gly Ala Ala Gly Trp His Gln Val Trp Arg Glu Ala
    610                 615                 620
Gly Gly Ser Ala Arg Arg Arg Arg Arg Cys Gly Asn Val Ala Ser Ala
625                 630                 635                 640
Glu Ala Val Gln Pro Gly Tyr Gly Arg Gly Ala Asp Ala Phe Glu Pro
                645                 650                 655
Pro Ala
```

<210> 31252
<211> 207
<212> PRT
<213> A.fumigatus

<400> 31252

```
Leu His Gln Ala Ile Leu Thr Asp Leu Trp Thr Ser Arg Leu Val Gln
1               5                   10                  15
Lys Thr Trp Ser Ser Asn Met Ile Val Trp Ile Gly Arg Arg Leu Val
            20                  25                  30
Glu Thr Arg Phe Cys Arg Gly His Thr Asp Ala Ala Thr Gln Leu Gly
        35                  40                  45
Arg Asp Ile Cys Tyr Asn Leu Arg Gln Val Trp Gly Asn Cys Asp Pro
    50                  55                  60
```

```
Val Thr Leu Glu Met Thr Lys Leu Leu Ser Gly Leu Tyr Thr Ala Ser
65                  70                  75                  80
Gly Asn His Leu Ala Ala Val Ala Leu His Glu Thr Ala Leu His Glu
                85                  90                  95
Leu Leu Asn Asp Thr Asp Ile Asp Gln Ala His Ala Ala Asp Ala Ala
            100                 105                 110
Ser Gln His Leu Arg Leu Leu Met His Ala Gln Ser Arg Leu Arg Lys
        115                 120                 125
Glu Ser Ser Gln Ala Val Asp Thr Ser Ala Tyr Asp Glu Leu Val Gln
    130                 135                 140
Gln Val Gly Thr Lys Phe Gly Val Arg Pro Glu Gly Leu Gln Gly Ala
145                 150                 155                 160
Gly Asp Asp Val Gly Met Trp His Arg Pro Arg Arg Phe Ser Leu Asp
                165                 170                 175
Met Gly Glu Glu Gln Met His Ser Asn His Leu Arg Ser Ser Ser Gly
            180                 185                 190
Ser Ala Val Leu His Gly Tyr Phe Ser Ala Ser Gly Glu Asn His
        195                 200                 205
```

<210> 31253
<211> 406
<212> PRT
<213> A.fumigatus

<400> 31253

```
Thr Ile Gln Gln Ala Asp Ser Asp His Gly Gly Asp Ala Leu Gln Glu
1               5                   10                  15
Asp Leu His Val Leu Gln Phe Val Asn Leu Ala Gly Ala His Arg Val
            20                  25                  30
Val Ala Glu Gly Ala His Arg Pro Ala Lys Gly Ser Ala Leu Leu Glu
        35                  40                  45
Glu Thr Ser Val Gln Ala Phe Val Arg Phe Leu His Glu Phe Leu Val
    50                  55                  60
Gly Glu Leu Leu Gly Leu Val Gly Asp Lys Gly Leu Leu Val Gly Gly
65                  70                  75                  80
Asp Gly Arg Arg Gly Asp Gly Phe Asp Leu Gly Leu Gly Val Leu Ala
                85                  90                  95
Val Lys Leu Gly Glu Gly Leu Leu Gly Gly Ser Gly Gly Gly Leu Gly
            100                 105                 110
Ser Val Leu Leu Val Val Leu Val Leu Asp Asp Gly Val Val Gly Asp
        115                 120                 125
Phe Gly Thr Val Gly Ala Leu Arg Ser Gly Thr Leu Glu Gln Gln Arg
    130                 135                 140
Thr Glu Asp Lys His Pro Pro Leu Asp Ala Val Ile Pro Leu Asp His
145                 150                 155                 160
Thr Gly Val Asp Lys Gly Asn Glu Glu Asp Gly Gly Glu Asp Gly Asn
                165                 170                 175
Thr Thr Thr Ala Thr His Gly His Arg Gly Asn Ile Pro Ala Gly Leu
            180                 185                 190
Leu Ala Gln Thr Glu Thr Arg Arg Thr Leu Val Asp Asn Gly Gln Gly
        195                 200                 205
Thr Asp Arg Gly Gly Glu Glu Glu Pro Glu Gly Arg Ala Val Asp Ser
    210                 215                 220
Pro Arg His Gly Val Leu Ala His Val Asp Asp Glu Leu Asp Gln His
225                 230                 235                 240
Glu Asp Thr Gly Thr Glu Thr Gly Arg Asp Gly Gly Ser His Thr Gln
```

```
                245                 250                 255
Ala Gly Glu Asp Ser Ser Gln Ser Leu Ser Val Val Pro Ser Pro Leu
            260                 265                 270
Tyr Leu Gly Ser Thr Asp Gly Cys Asn Thr Asp Thr Ser Asn Gly Arg
        275                 280                 285
Asp Glu Gly Val Gly Arg Arg Asp Met Gly Arg Val Leu Gly Ala Pro
    290                 295                 300
His Asn Pro Gly Gly Ser Ser Gly Glu Gly Thr Gly Lys Ser Lys His
305                 310                 315                 320
Leu His Thr Gly Ile Thr Ala Glu Gly Arg Val Gly Asp Asp Thr Val
                325                 330                 335
Leu Asp Gly Val Ser Arg Pro Ser Thr Asp Cys Asp Gly Thr Glu His
            340                 345                 350
Leu Glu Asp Gly Ala Glu Asp His Gly Leu Ser Val Gly Asn Arg Ser
        355                 360                 365
Gly Arg Asn Thr Gly Ser Pro Gly Val Gly His Ile Ile Phe Arg Gln
    370                 375                 380
Ala Met Ser Ala Asn His Leu Ser Lys Arg Gly Gln Arg Asp Ile Asp
385                 390                 395                 400
Ile Leu Ala Pro Leu Leu
                405
```

<210> 31254
<211> 67
<212> PRT
<213> A.fumigatus

<400> 31254

```
Gln His Lys Ser Pro Val Ala Arg Ser Leu Ser Glu Ser Ile Ala Asn
1               5                   10                  15
Gln Ala Leu Ile His Leu Ser His Thr His Thr His Thr His Thr Phe
            20                  25                  30
Thr Val Glu Met Val Leu Ser Gln Tyr Asp Tyr Ile Phe Ala Ile Gly
        35                  40                  45
Thr Leu Phe Ala Met Leu Asp Ala Tyr Asn Asn Gly Ala Ser Met Ser
    50                  55                  60
Ile Ser Leu
65
```

<210> 31255
<211> 98
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (9)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31255

```
Ala Ile Val Met Gly Asn Lys Ile Xaa Tyr His Ser Pro Ser Arg Gly
1               5                   10                  15
Cys Ser Met Glu Leu Gly Ala Ala Ile Thr Val Leu Val Phe Ser Gln
            20                  25                  30
Tyr Ser Leu Pro Val Ser Thr Ser Met Cys Ile Thr Gly Ala Thr Val
        35                  40                  45
```

```
Gly Val Gly Leu Cys Asn Gly Thr Leu Lys Ala Val Asn Phe Gln Arg
    50                  55                  60
Val Gly Leu Leu Leu Leu Ala Trp Ile Met Thr Ile Pro Ile Ala Gly
65                  70                  75                  80
Thr Leu Gly Gly Val Leu Met Gly Leu Phe Ile Asn Ala Pro His Phe
                85                  90                  95
Ser Ser
```

<210> 31256
<211> 498
<212> PRT
<213> A.fumigatus

<400> 31256

```
His Cys Leu Ser Lys Asp Asp Val Ala Asn Ser Trp Ala Thr Ser Val
1               5                  10                  15
Ser Ser Arg Ser Val Thr Tyr Arg Gln Ala Met Ile Phe Gly Thr Val
            20                  25                  30
Phe Glu Met Leu Gly Ala Ile Thr Val Gly Ala Arg Thr Ala Asp Thr
        35                  40                  45
Ile Lys Asn Gly Ile Ile Pro Asn Ser Ala Phe Arg Gly Asp Ala Gly
    50                  55                  60
Val Gln Met Leu Ala Phe Thr Cys Ala Leu Ala Ala Ala Ser Ser Trp
65                  70                  75                  80
Val Met Trp Cys Thr Lys His Ser Ala His Val Ser Ser Thr Tyr Ser
                85                  90                  95
Leu Ile Ser Ala Val Ala Gly Val Gly Val Ala Thr Val Gly Ala Ser
            100                 105                 110
Lys Val Gln Trp Gly Trp Asn His Gly Lys Gly Leu Gly Ala Ile Phe
        115                 120                 125
Ala Gly Leu Gly Met Ala Pro Ala Ile Ser Ala Gly Phe Gly Ala Ser
    130                 135                 140
Ile Phe Met Leu Ile Lys Leu Ile Val His Met Arg Lys Asn Pro Val
145                 150                 155                 160
Pro Trp Ala Val Tyr Ser Ser Pro Phe Trp Phe Leu Leu Ala Ala Thr
                165                 170                 175
Val Cys Thr Leu Ser Ile Val Tyr Lys Gly Ser Pro Ser Leu Gly Leu
            180                 185                 190
Ser Lys Lys Pro Ser Trp Tyr Ile Ala Ser Val Thr Met Gly Cys Gly
        195                 200                 205
Gly Gly Val Ala Ile Leu Ser Ala Ile Phe Phe Val Pro Phe Val His
    210                 215                 220
Ala Arg Val Ile Lys Arg Asp His Gly Val Lys Trp Trp Met Phe Ile
225                 230                 235                 240
Leu Gly Pro Leu Leu Phe Lys Arg Pro Ala Pro Gln Gly Ala Asp Arg
                245                 250                 255
Ala Lys Val Pro Asn Tyr Ala Val Val Gln Asp Glu Asp His Glu Glu
            260                 265                 270
Asp Ala Thr Gln Ala Ser Pro Ala Pro Ser Glu Gln Thr Leu Ser Glu
        275                 280                 285
Phe Asp Ser Lys Asn Pro Lys Thr Glu Ile Glu Pro Ile Thr Ser Pro
    290                 295                 300
Ala Ile Ser Pro Asn Glu Lys Thr Leu Val Thr Asn Glu Thr Lys Gln
305                 310                 315                 320
Leu Thr Tyr Lys Glu Leu Met Glu Glu Ser Asn Lys Arg Leu Asn Ala
```

```
                325                 330                 335
Arg Leu Leu Lys Lys Arg Gly Pro Leu Gly Trp Ala Met Arg Thr Leu
            340                 345                 350
Arg Asp Asn Pro Met Gly Pro Gly Glu Ile Tyr Glu Leu Lys Asn Met
        355                 360                 365
Lys Ile Leu Leu Lys Arg Ile Pro Ala Met Ile Thr Val Gly Leu Leu
    370                 375                 380
Tyr Gly Leu His Tyr Asp Ile His Ala Ala Gln Ser Gly Ile His Gly
385                 390                 395                 400
Thr Pro Glu Gly Glu Arg Met Gln Arg Val Tyr Ala His Ala Glu Lys
                405                 410                 415
Tyr Pro Asn Glu Val Glu His Thr Tyr Ser Phe Val Gln Val Leu Thr
            420                 425                 430
Ala Cys Thr Ala Ser Phe Ala His Gly Ala Asn Asp Ile Gly Asn Ser
        435                 440                 445
Val Gly Pro Trp Ala Val Ile Tyr Ser Ala Trp Lys Thr Gly Asn Ala
    450                 455                 460
Ala Ala Ser Lys Ala Pro Val Pro Val Trp Gln Leu Ala Val Leu Ser
465                 470                 475                 480
Gly Cys Ile Ser Ile Gly Leu Ile Thr Tyr Gly Tyr Asn Ile Met Lys
                485                 490                 495
Gly Lys
```

<210> 31257
<211> 69
<212> PRT
<213> A.fumigatus

<400> 31257

```
Ser Phe Glu Ser Ser Leu Leu Pro Lys Tyr Pro Leu Asn Ser Thr Ser
1               5                   10                  15
Lys Val Met Pro Lys Val Gly Ser Glu Gly Pro Lys Leu Pro Asn Asn
            20                  25                  30
Ile Thr Gly Thr Thr Ala Pro Pro Ser Asp Leu Glu Trp Pro Trp Thr
        35                  40                  45
Phe Arg Ala Gly Thr Glu Ser Phe Pro Phe Leu Phe Ser Phe Ile Phe
    50                  55                  60
Ser Ser Arg His Cys
65
```

<210> 31258
<211> 137
<212> PRT
<213> A.fumigatus

<400> 31258

```
Val Ser Arg Gln Arg Arg Leu Pro Val Arg Pro Phe Pro Ser Leu Ile
1               5                   10                  15
Asp Leu Ala Asn Ser Asp Arg Tyr Ile Pro Tyr Ala Glu Glu Ser Ser
            20                  25                  30
Asp Ile Asn Ala Cys Gly Ile Pro Ile Asn Tyr Asn Ala Ser Lys Glu
        35                  40                  45
Trp Ala Asp Lys Lys Val Val Leu Phe Ser Val Pro Gly Leu Phe Thr
    50                  55                  60
Ser Pro Ala Leu Pro Asn Tyr Glu Ser Asn Ser Thr Gly Ala Phe Thr
```

```
65                  70                  75                  80
Pro Thr Cys Ser Ala Asn His Leu Pro Gly Tyr Ile Lys Ser Leu Pro
                85                  90                  95
Gln Leu Lys Glu Lys Gly Val Gln Ile Val Ala Val Leu Ala Ser Asn
            100                 105                 110
Asp Pro Tyr Val Met Ser Ala Trp Gly Lys Ala Asn Gln Val Thr Gly
        115                 120                 125
Asp Asp Ile Val Arg Gly Ala Thr Thr
    130                 135
```

<210> 31259
<211> 62
<212> PRT
<213> A.fumigatus

<400> 31259

```
Glu Pro Gly Pro Lys Gly Leu Ala Gln Met Gly Ala Ile Ser Pro Gly
1               5                   10                  15
Gly Met Ser Ser Ser Pro Pro Glu Thr Pro Lys Gly Pro Lys Ile Gln
            20                  25                  30
Thr Leu His Thr Ala Tyr Gln Thr Asp Leu Ala Arg Ala Asp Ser Pro
        35                  40                  45
Gly Pro Ser Glu Arg Leu Lys Arg Arg Leu Leu Trp Val Leu
    50                  55                  60
```

<210> 31260
<211> 531
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (336)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31260

```
Leu Arg Gly Ser Ala Phe Pro Ser Ser Pro Trp Arg Glu Asp Ala Arg
1               5                   10                  15
Pro Lys Ser Arg Ser Arg Asp Ser Gly His Arg Arg Ser Arg Asp Lys
            20                  25                  30
Gly Ser Arg Ser Ser Ser Leu Ser Arg His Ala Tyr Ser Gln Glu Ala
        35                  40                  45
Asn Phe Leu Ala Ser Arg Gly Arg Arg Glu His Ser Pro Lys Arg His
    50                  55                  60
Glu Ser Glu Pro Gly Phe Pro Arg Asp Leu His Gly His Glu Ala Ala
65                  70                  75                  80
Asn Arg Gly Gly Ser Lys Ala Arg Asp Ser Glu His Asn Gly Pro His
                85                  90                  95
Lys Gly Ser Asp Lys Asn Asp Trp Val Gly Gln His Leu Asp Glu Ile
            100                 105                 110
Asp Ser Ala His Trp Ile His Arg Asp Lys Leu Ala Arg Ile Glu Ser
        115                 120                 125
Glu Glu Leu Gln Gln Ala Ala Tyr Leu Phe His Arg Arg Ala Gly Leu
    130                 135                 140
Glu Asn Gly Lys Ala Ser Arg Ala Arg Asn His Asp Phe Asp Asn Ser
145                 150                 155                 160
```

```
Gly Phe Ser Gly Leu Val Gly Ala Pro Thr Ala Ser Glu Ser Met Glu
                165                 170                 175
Pro Trp Pro Asn Leu Arg Asp Glu Gln His Lys His Ala Ser Ser Pro
            180                 185                 190
Ile Pro Phe Asp Gly Asp Asp Thr Gly Asp Val Thr Glu Glu Glu Arg
        195                 200                 205
Arg Gly Trp Asp Leu Arg Arg Pro Glu Glu Ile Ala Ala Asp Glu Val
    210                 215                 220
Thr Asp Ser Thr Ser Ser Met Tyr Arg Asn Pro Gly Leu Arg Lys Ser
225                 230                 235                 240
Ser Ser Arg Ile Pro Ile Ser Thr Ala Ser Pro Ala Pro Ile Ser Pro
                245                 250                 255
Glu His Leu Gly Arg Glu Phe Ser Met Gln Arg Ala Pro Asp Ala His
            260                 265                 270
Lys Arg Gly Gly Gly Asn Leu Val Phe Gly Lys Pro Arg Arg Ala Ser
        275                 280                 285
Glu Pro Ile Ala Gly Glu Gly Ser Asp Ser Leu Ala Thr Pro Cys Ala
    290                 295                 300
Gly Ser Arg Pro Asn Ser Arg Gly Ile Gln Pro Asn Gln Ser Cys Ser
305                 310                 315                 320
Ala Lys Arg Gly Pro Ala Ser Lys Gly Ser Ala Thr Arg Lys Pro Xaa
                325                 330                 335
Ala Pro Pro Ser Asn Thr Arg Lys Thr Ser Arg Asn Arg Thr Val Ser
            340                 345                 350
Thr Asn Ser Gln Arg Pro Thr Thr Arg Ser Gly Glu Pro Arg Pro Pro
        355                 360                 365
Gln Pro Ile Asn Arg Pro Glu Gly Asp Pro Pro Trp Leu Ala Thr Met
    370                 375                 380
Tyr Lys Pro Asp Pro Arg Leu Pro Pro Asp Gln Gln Ile Leu Pro Thr
385                 390                 395                 400
His Ala Arg Arg Met Gln Gln Glu Gln Trp Glu Lys Glu Gly Arg Thr
                405                 410                 415
Pro Thr Thr Tyr Asp Arg Glu Phe Ala Pro Leu Ala Ile Gly Pro Asp
            420                 425                 430
Asp Arg Pro Gln Leu Pro Ser Lys Ala Glu Gly Thr Glu Lys Val Glu
        435                 440                 445
Asn Thr Pro Glu Lys Thr Glu Glu Gln Ser Leu Ser Gln Gly Gln Ala
    450                 455                 460
Glu Lys Thr Asp His Leu Leu Ala Ser Pro Lys Ser Pro Thr Ser Arg
465                 470                 475                 480
Pro Ser Ser Ser Thr Gly Tyr Ser Pro Met Pro Lys Leu Gln Glu Met
                485                 490                 495
Pro Ala Ala Ala Gln Val Gly Leu Thr Pro Lys Trp Asn Pro Pro Val
            500                 505                 510
Val Thr Ala Gln Pro Pro Pro Pro Lys Glu Lys Gly Cys Gly Cys Cys
        515                 520                 525
Ile Val Met
    530
```

<210> 31261
<211> 70
<212> PRT
<213> A.fumigatus

<400> 31261
Asn Gly Asn Glu Lys Arg Cys Ala Asp Val Cys Gly Asp Asp Asp Asp

```
1               5                   10                  15
Asp Val Asp Asp Gly Arg Glu Ile Gln Asn Ala Leu Tyr Glu Met Thr
            20                  25                  30
Gln Gln Arg Thr Val Pro Asn Ile Phe Ile Gly Gln Lys His Ile Gly
        35                  40                  45
Gly Asn Ser Glu Leu Gln Ala Lys Ser Ala Gln Leu Pro Ala Leu Leu
    50                  55                  60
Lys Glu Ala Gly Ala Leu
65                  70
```

<210> 31262
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31262

```
Ala Gly Glu Tyr Ser Ile Asp Asn Arg Ser Thr Asn Ser Val Val Thr
1               5                   10                  15
Phe Ala Val Cys Thr Tyr Val Leu Ala Tyr Ser Gly Leu Gln Ala Glu
            20                  25                  30
Pro Trp Ala Ile Asn Pro Leu Val Pro Thr Ser Pro Gly Val Phe Asn
        35                  40                  45
Tyr Ser Asn Lys Thr Thr Gln Leu Leu Asn Leu Gln Val
    50                  55                  60
```

<210> 31263
<211> 74
<212> PRT
<213> A.fumigatus

<400> 31263

```
Asn His Thr Pro Phe Arg Val Ser Ser Phe Gln Ala Leu Arg Asn Arg
1               5                   10                  15
Leu His Val Leu Arg His Ala Gln Lys Phe Thr Ala Val Val Gln Thr
            20                  25                  30
Ser Thr Val Tyr Ala Asp Leu Ser Leu Met Lys Pro Ser Ser Tyr Ile
        35                  40                  45
Asp Ala Gly Leu Asn Val Asp Val Leu Leu His Arg Thr Ala Arg His
    50                  55                  60
Gly Leu Leu Pro Pro Ser Ile Leu Glu Tyr
65                  70
```

<210> 31264
<211> 77
<212> PRT
<213> A.fumigatus

<400> 31264

```
Gln Leu Ser Asn Ile Leu Leu Ser Arg Asp Gln Lys Ala Lys Ala Ser
1               5                   10                  15
Phe Pro Asp Gln Trp Arg Leu Gly Ala Ala Thr Phe Arg Pro Phe Thr
            20                  25                  30
Val Ile Asn Arg Thr Thr Ala Gln Leu Ala Ile Ile Leu Glu Ala Gly
        35                  40                  45
Ile Tyr Leu Ala Pro Ser Phe Ser Ala Arg Asn Gln Thr Ser Ile Ser
    50                  55                  60
```

Leu Ser Glu Lys His Ala Ile Ile Leu Ser Leu Arg Ser
65 70 75

<210> 31265
<211> 140
<212> PRT
<213> A.fumigatus

<400> 31265
Asn Asp Ala Tyr Leu Ser Phe Leu Arg Lys Ser Trp Ser Asn Thr Arg
1 5 10 15
Leu Thr Gln Trp Asn Ala Val Ala Leu Trp Ala Trp Asp Ile Val Val
20 25 30
Asp Asn Cys Ala Ile Cys Arg Asn His Ile Met Asp Leu Cys Met Ser
35 40 45
Leu Thr Pro Leu Phe Cys Leu Ile Asp Ala His Leu Leu Gln Thr Gly
50 55 60
Ile Glu Cys Gln Ala Asn Gln Gly Ser Ser Thr Thr Glu Glu Cys Thr
65 70 75 80
Val Ala Trp Gly Ile Cys Asn Val Gly Phe Ala Ser Ala Thr Ala Phe
85 90 95
Ser Pro Ser Arg Ala Asn Lys Cys Phe Thr Ser Gln His Ala Phe His
100 105 110
Phe His Cys Ile Ser Arg Trp Leu Lys Thr Arg Gln Val Cys Pro Leu
115 120 125
Asp Asn Arg Asp Trp Glu Phe Gln Lys Tyr Gly Arg
130 135 140

<210> 31266
<211> 303
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (84)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31266
Tyr Arg Leu Leu Gly Ser Ile Thr Val Ile Arg Leu Tyr Pro Ser Leu
1 5 10 15
Leu Leu Phe Leu Ser Val Thr Ser Leu Phe Ile Asp Gln Phe His Phe
20 25 30
Lys Phe Phe His Glu Ser Ser Lys Ala Ala Tyr Leu Leu Ser His Leu
35 40 45
Ile Ala Met Ser Ser Ile Ser Pro Thr Pro Pro Thr Pro Lys Gly Ser
50 55 60
Arg Ser Asn Arg Arg Asn Pro Lys Lys Thr Thr Thr Pro Ser Asn Gln
65 70 75 80
Lys Met Ala Xaa Leu Thr Thr Pro Pro Ser Ser Pro Pro Gly Asn Ser
85 90 95
Ser Pro Gly Glu Ile Val Thr Asp Thr Ser Ile Asn Leu His Asn Pro
100 105 110
Ser Lys Arg Lys Asn Pro Arg Ser Asn Lys Lys Pro Arg Asp Ala Pro
115 120 125
Lys Ser Ser Pro Ala Asn Asn Asn Gly His Arg His Thr Ser Ser His

```
    130                 135                 140
Pro Ala Gly Ser Thr Pro Gln Val Lys Asp Ser Pro His Tyr Ala Gly
145                 150                 155                 160
Pro Thr Phe His Ala Ser Pro Ala Pro Ser Ala Leu Pro Ile Pro Ser
                165                 170                 175
Phe Phe Ser Lys Ser Val Pro Glu Ser Asp Pro Ala Glu Glu Ile Asp
            180                 185                 190
Gly Asp His Leu Glu Ala Gly Leu Asp Leu Asp Thr Thr Pro Ser Lys
        195                 200                 205
Pro Arg Pro Arg Phe Gln Thr Gln Ser Glu Lys Ser His Ser Thr Pro
    210                 215                 220
Leu Asp Phe Leu Phe Lys Ala Ala Val Glu Ala Arg Asn Ser Gln Leu
225                 230                 235                 240
Gln Arg Ser Pro Glu Ala Asn Ile Gly Thr Arg Ser Pro Gln Thr Asp
                245                 250                 255
Leu Lys Val Gln Arg His Gln Met Pro Asn Cys Lys Asn Gly Ala Phe
            260                 265                 270
Ala Gly Ile Phe Pro Val Arg Asp Gly Lys Phe Arg Pro Thr Glu Leu
        275                 280                 285
Cys Leu His Pro Gln Gly Pro Glu Gly Pro Ala Leu Cys Val Tyr
    290                 295                 300

<210> 31267
<211> 66
<212> PRT
<213> A.fumigatus

<400> 31267
Pro His Leu Met Phe Ala Trp Ala Leu Leu Val Ile Ala Asp Pro His
1               5                   10                  15
Leu Lys Phe Pro Asn Ser Leu Gln Pro Thr Ser Ala Arg Pro Ser Gln
            20                  25                  30
Gly Ser Phe Arg Pro Leu Ala Ser Leu Leu Gln Leu Gln Met Ser Lys
        35                  40                  45
Ala Thr Asn Met Arg Leu Cys Pro Val Ser Ile Leu Ser Leu Arg Ser
    50                  55                  60
Pro Ile
65

<210> 31268
<211> 71
<212> PRT
<213> A.fumigatus

<400> 31268
His Tyr Phe Leu Lys Thr Pro Ser Gln Tyr Asn Arg Ala Leu Ile Asn
1               5                   10                  15
Thr Lys Leu Ser Thr Glu Gln Glu Val Ala Leu Ile Lys Tyr Ile Asn
            20                  25                  30
Ile Leu Ile Lys Leu Asp Ile Pro Leu Gln Leu Lys Ala Ile Ser Asn
        35                  40                  45
Ile Val Asn Leu Ile Leu Phe His Arg His Thr Asn Leu Ile Thr Pro
    50                  55                  60
Pro Pro Leu Ile Ser Met His
65                  70
```

<210> 31269
<211> 418
<212> PRT
<213> A.fumigatus

<400> 31269

```
Glu Asp Val Gln Arg Asp Leu Val Leu Leu Lys Ala Arg Arg Pro Val
1               5                  10                  15
Tyr Asp Gln Asn Pro Pro Ser Leu Glu Tyr Asn Leu Thr Leu Cys Asp
            20                  25                  30
Ser Gly Tyr Ile Asp Trp Ala Arg Val Leu Ser Pro Pro Glu Asp Phe
        35                  40                  45
Leu Ser Thr Ala Arg Asp Cys Leu Leu Asn Gly Arg Ala Ser Asn Val
    50                  55                  60
Pro Thr Thr Val Arg Thr Thr Gly Ser Glu Gln Thr Gln Val Thr Gly
65                  70                  75                  80
Ala Val Asn His Glu Thr Pro Gln Ser Phe Asn Gln Pro Glu Glu Thr
                85                  90                  95
Asn Ala Gly Arg Ala Tyr Lys Asp Ser Thr Val Ser Phe Arg Ser Asp
            100                 105                 110
Gly Asp Ser Val Ala Ile Ala Thr Pro Val Ser Ser Asn Asn Gly Gln
        115                 120                 125
Ser Ser Arg Val Ser Ile Val Gln Ala Ala His Thr Ala Thr Glu Thr
    130                 135                 140
Asp Gln Arg Phe Glu Pro Ser Arg Leu Arg Ser Ser Gln Gln Gly Lys
145                 150                 155                 160
Pro Gln His Val Lys Ser Asn Ser Glu Leu Ala Asp Asp Lys Ala Gln
                165                 170                 175
Ala Gly Lys Gln Asn Gln Asp Asp Ala Leu Val Asp Val Ser Thr Pro
            180                 185                 190
Pro Ser Gly Ser Thr Thr Ile Val Arg Thr Lys Asp Leu Tyr Tyr Asp
        195                 200                 205
Asn Val Gln Thr Glu Gly Lys Thr Gly Ile Leu Leu Asp Phe Asn Ser
    210                 215                 220
Thr Pro Pro Arg Lys Ser Leu Pro Gly Ala Glu Asn Ser Leu Ser Met
225                 230                 235                 240
Ser Pro Ala Leu Gln Asp Leu Glu Gly Ile Asn Phe Gln Val Asn Val
                245                 250                 255
Ala Gln Ser Ile Leu Leu Arg Pro Glu Gln Arg Pro Glu Thr Gln Ile
            260                 265                 270
Tyr Ser Phe Ile Glu Ala Asp Pro Val Asp Leu Lys Asp Phe Ser Ser
        275                 280                 285
Pro Arg Ile Val Glu Ser Asn Gly Asp Thr Met Thr Pro Thr Pro Asp
    290                 295                 300
Ser Thr Pro Ser Asp Leu Ala Ala Leu Arg Glu Lys Leu Ala Arg Leu
305                 310                 315                 320
Cys Lys Phe Val Glu Glu Thr Leu Arg His His Val Pro Glu Pro Leu
                325                 330                 335
Arg Asp Met Asp Leu Gln Ala Leu Arg Lys Tyr Glu Gln Glu Leu Thr
            340                 345                 350
Glu Ile Leu Ser Leu His Gln Gly Thr Met His Glu Thr Ala Ser Gln
        355                 360                 365
Thr Ala Arg Lys Arg Gln Glu Phe Leu Ser Ser Arg Lys Ser Gln Glu
    370                 375                 380
Lys Lys Ala Glu Thr Ala Val Glu Arg Lys Ser Pro Lys Ile Ser Ser
385                 390                 395                 400
```

```
Pro Thr Pro Ser Val Cys Ser Pro Pro Val Arg Ala Pro Leu Glu Glu
                405                 410                 415
Gly Asn
```

<210> 31270
<211> 210
<212> PRT
<213> A.fumigatus

<400> 31270

```
Gly Tyr Asp Val Gly Lys Thr Leu Val Ser Arg Phe Ser Asn Val Arg
1               5                  10                  15
Met Glu Asn Asn Thr Pro Gln Tyr Thr Ile Ala Gln Ile Ser Ala Ala
            20                  25                  30
Gly Phe Phe Ser Ala Ile Pro Met Thr Leu Ile Thr Ala Pro Phe Glu
        35                  40                  45
Arg Val Lys Val Leu Leu Gln Ile Gln Gly Gln Asn Pro Pro Pro Pro
    50                  55                  60
Gly Gln Lys Pro Lys Tyr Ser Gly Gly Leu Asp Val Val Arg Gln Leu
65                  70                  75                  80
Tyr Lys Glu Gly Gly Ile Arg Ser Val Phe Arg Gly Ser Ala Met Thr
                85                  90                  95
Leu Ala Arg Asp Gly Pro Gly Ser Ala Ala Tyr Phe Ala Ala Tyr Glu
            100                 105                 110
Tyr Ile Lys Arg Ser Leu Thr Pro Lys Asp Glu His Gly Asn Val Thr
        115                 120                 125
Gly Ala Leu Ser Met Pro Ala Val Leu Ala Ala Gly Gly Ala Ala Gly
    130                 135                 140
Ile Ala Met Trp Ile Pro Val Phe Pro Val Asp Thr Ile Lys Ser Arg
145                 150                 155                 160
Leu Gln Ser Ala Pro Gly Lys Pro Thr Ile Gly Gly Thr Ile Arg Ser
                165                 170                 175
Val Tyr Ala Ser Gly Gly Phe Lys Ala Phe Phe Pro Gly Phe Gly Pro
            180                 185                 190
Ala Leu Ala Arg Ala Val Pro Val Phe Thr Thr Gly Leu Glu Arg Ala
        195                 200                 205
Ala Pro
    210
```

<210> 31271
<211> 113
<212> PRT
<213> A.fumigatus

<400> 31271

```
Ala Tyr Pro Ser Asn Thr Gly Ala Thr Thr Thr Asp Thr Thr Leu Thr
1               5                  10                  15
Thr Thr Thr Thr Ser Phe Glu Asn Gly Ser Ser Thr Gly Asn Ser Ser
            20                  25                  30
Ser Glu Thr Gly Ala Gly Ser Gly Ser Ser Thr Ala Thr Gly Ser Gly
        35                  40                  45
Ser Gly Ser Gly Ala Gly Ser Ala Ser Thr Thr Ala Pro Asn Ser Ser
    50                  55                  60
Ser Thr Gly Asn Val Ala Pro Trp Arg Arg Cys Arg Trp Phe Arg Cys
65                  70                  75                  80
```

```
Arg Trp Ser Pro Gly Pro Arg Cys Leu Asp Tyr Pro Leu Asp Phe Ser
                85                  90                  95
Lys Ile Thr Leu Met Gly Ile Gly Ser Leu Met Ser Val Tyr Val Leu
            100                 105                 110
Cys
```

<210> 31272
<211> 161
<212> PRT
<213> A.fumigatus

<400> 31272

```
Asn Ile Phe Leu Ile Lys Phe Leu Leu Thr Ser Ala Leu Phe Leu Arg
1               5                   10                  15
Phe Leu His Phe Ala Thr Val Ser Arg Pro Pro Ser Ser His Pro Ser
            20                  25                  30
Leu Cys Ser Arg Asp His Leu Thr Pro Trp Pro Leu Cys Ala Ile Thr
        35                  40                  45
Tyr Leu Pro Pro Leu Pro His Tyr Glu Leu Ser Arg Phe Phe Pro Ala
    50                  55                  60
Ser Pro Cys Thr His Ser Thr Met Ser Thr Pro Gly Ser Ser Thr Pro
65                  70                  75                  80
Glu Asn Leu Ser Asp Glu Leu Lys Ala Ile Glu Thr Lys Ala Val Asn
                85                  90                  95
Gln Thr Ile Ala Gln Ile Arg Ser Leu Ala Ala Gly Ala Ala Gly Gly
            100                 105                 110
Ile Cys Ala Val Val Val Gly His Pro Phe Asp Leu Val Lys Val Arg
        115                 120                 125
Leu Gln Thr Ala Glu Lys Gly Val Tyr Ser Gly Ala Ile Asp Val Val
    130                 135                 140
Lys Lys Thr Ile Ala Arg Glu Gly Leu Ala Arg Val Ser Cys Ala Val
145                 150                 155                 160
Ser
```

<210> 31273
<211> 400
<212> PRT
<213> A.fumigatus

<400> 31273

```
Thr Glu Arg Thr Gly Arg Pro Trp Glu Asp Leu Arg Lys Arg Glu Glu
1               5                   10                  15
Ala Ala Ser Gln Lys Val Lys Glu Met Glu Gln Ala Phe Ala Lys Leu
            20                  25                  30
Glu Lys Glu Lys Gln Gln Met Lys Thr Glu Ile Glu Asn Thr Val Arg
        35                  40                  45
Arg Glu Trp Glu Val Lys Ala Arg Leu Glu Ile Asp Arg Gln Val Gln
    50                  55                  60
Asn Glu Leu Asp Arg Leu Arg Lys Arg Phe Glu Phe Glu Val Gln Glu
65                  70                  75                  80
Arg Val Asn Ile Glu Val Glu Lys Gln Lys Arg Asn Asn Thr Ser Arg
                85                  90                  95
Asp Asp Thr Val Leu Pro Thr Gly Ser Ser Gln Ser Ser Val Asn Ser
            100                 105                 110
```

```
Gly Asp Asp Thr Gly Phe Pro Ser Asn Thr Asp Leu Ser Gln Leu Ser
        115                 120                 125
Ile Glu Ser Pro Thr Ala Asn Ala Asn Lys Gln Pro Lys Lys Glu Ser
    130                 135                 140
Arg Thr Pro Phe Ser Arg Ser Lys Thr Met Val Glu Ser Pro Val Asp
145                 150                 155                 160
Val Gln Met Ala Glu Pro Ser Pro Ile Ser Ile Ala Ser Leu Ser Leu
                165                 170                 175
Ser Pro Arg Arg Thr Ser Val Ala Ser Arg Asn Ile Phe Ala Glu Ala
            180                 185                 190
Asp Lys Pro Arg Ala Lys Trp Glu Pro Thr Leu Thr Tyr Ser Asp Asp
        195                 200                 205
Glu His Asp Ile Pro Asp Leu Pro Ser Pro Thr Arg Gln Lys Val Lys
    210                 215                 220
His Asp Pro Pro Lys Gly Pro Ala Arg Pro Leu Leu Arg Gln Asn Thr
225                 230                 235                 240
Thr Ala Phe Met Gln Lys Leu Ser Ser Gln Pro Pro Leu Phe Pro Ser
                245                 250                 255
Asn Ser Ser Arg Leu Pro Gln Met Pro Gly Gly Pro Ser Glu Thr Arg
            260                 265                 270
His Gly Glu Lys Ser Arg Ser Pro His Arg Arg Leu Ser Lys Ile Pro
        275                 280                 285
Ser Ser Ala Asn Leu Ala Ala Asp Ala Gly Ser Pro Thr Arg Lys Ser
    290                 295                 300
Ala Thr Lys Gln Leu Pro Ser Lys Ala Asn Gly Gly Gly Glu Glu Met
305                 310                 315                 320
Phe Lys Ala Val Met Gln Arg Asn Met Gly Gly Arg Thr Leu Val Glu
                325                 330                 335
Leu Ala Gln Ala Arg Ala Gly Gly Arg Pro Met Asp Glu Val Lys Arg
            340                 345                 350
Cys Ala Ser Asp Ser Arg Ala Ser Gly Cys Ser Ser Asn Leu Lys Ser
        355                 360                 365
Ser Asp Arg Glu Pro Pro Ala Val Trp Asp Pro Glu Lys Asp Glu Met
    370                 375                 380
Pro Ser Pro Phe Leu Ala Arg Gly Arg Lys Val Ile Arg Asn Phe Arg
385                 390                 395                 400
```

<210> 31274
<211> 193
<212> PRT
<213> A.fumigatus

<400> 31274

```
Ile Gly Pro Pro Leu Ser Phe Gln Pro Arg Val Lys Thr Val Ala Ile
1               5                   10                  15
Gly Pro Leu Leu His Phe Asp Ala Asn Trp Trp Leu Ile Ile Gly Thr
            20                  25                  30
Tyr Ala Gly Leu Val Gly Met Asn Asp Gly Cys Val Leu Arg Asn Leu
        35                  40                  45
Gln Ala Arg Leu Arg Gly Phe Ala Asp Leu Glu Phe Glu Lys Val Ala
    50                  55                  60
Val Glu Asp Asp Lys Leu Phe Glu Ser Val Cys Gln Ala Met Pro Ile
65                  70                  75                  80
Lys Glu Ala Ala Glu Lys Pro Gly Leu Thr Gln Arg Val Ser Asp Ala
                85                  90                  95
Met Asn Arg Val Cys Ala His Glu Ile Thr Val Val Ala Gly Phe Leu
```

```
            100                 105                 110
Thr Ile Val Gly Leu Ile Ala Gly Ala Ser Ala Met Lys Trp Thr Met
        115                 120                 125
Thr Gly Gln Leu Leu Cys Asn Val Pro Pro Ser Leu Ile Glu Ser Phe
    130                 135                 140
Phe Met Ile Ile Leu Ile Thr Gly His Asn Ser Ala Asp Asp Arg Lys
145                 150                 155                 160
Arg Met Asp Leu Arg Asn Leu Tyr Glu Arg Arg Leu His Leu Leu Ala
                165                 170                 175
Leu Val Asn Ser Val Gln Thr Leu Arg Glu Glu Asn Arg Ser Gln Arg
            180                 185                 190
Asp
```

<210> 31275
<211> 308
<212> PRT
<213> A.fumigatus

```
<400> 31275
Ala Ala Tyr Gly Leu Ala Val Val Gly Ser Thr Ala Ser His Thr Gly
1               5                   10                  15
Val Ala Gly Thr Thr Leu Gly Gly Gly Phe Gly Trp Leu Thr Gly Arg
            20                  25                  30
Tyr Gly Leu Ile Ser Asp Asn Leu Leu Ser Val Arg Met Val Leu Ala
        35                  40                  45
Asp Gly Thr Ile Val Glu Ala Ser Asp Glu Asp His Gln Asp Leu Phe
    50                  55                  60
Trp Ala Val Arg Gly Ala Gly Gln Ala Phe Gly Ile Val Thr Glu Leu
65                  70                  75                  80
Val Phe Arg Ala His Glu Leu Ala Gly Pro Val Tyr Gly Gly Thr Leu
                85                  90                  95
Val Phe Thr Val Asp Arg Leu Pro Gly Ile Leu Glu Phe Ala Ser Arg
            100                 105                 110
Phe Asp Lys Leu Gln Asp Glu Asn Ser Gly Phe Phe Phe Gly Leu Ala
        115                 120                 125
Ala Pro Ser Ala Ala Asp Arg Thr Gly Ile Leu Val Leu Pro Phe Tyr
    130                 135                 140
Asn Gly Ser Gln Glu Lys Ala Glu Glu Phe Phe Ala Pro Leu Met Ser
145                 150                 155                 160
Leu Gly Pro Ser Ile Asn Lys Thr Ser Met Met Ser Tyr Lys Glu Leu
                165                 170                 175
Asn Gly Ile Ala Asn Val Asp Pro Val Pro Glu Gly Arg Lys Cys Phe
            180                 185                 190
Ser Gly Thr Lys Val Ser Met Pro Leu Asp Gln His Leu Leu Cys Asp
        195                 200                 205
Leu Trp Glu His Phe Asp Ala Ile Met Asp Lys Tyr Pro Arg Ser Asn
    210                 215                 220
Asn Ser Val Leu Met Phe Glu Leu Ile Pro Tyr Glu Lys Thr Ile Ser
225                 230                 235                 240
Val Pro Ile Asp Ala Thr Ala Cys Ala Asp Arg Gly Arg Tyr Tyr Asn
                245                 250                 255
Val Ala Leu Leu Leu Cys Trp Tyr Asp Pro Glu His Asp Ala Ala Met
            260                 265                 270
His Thr Tyr Met Arg Ala Leu Leu Thr Gln Ile Lys Arg Ser Asp Cys
        275                 280                 285
```

```
Tyr Ala Gly Lys Lys Glu Pro Leu Val Gln Ala Asn Ala Asn Phe Ala
    290                 295                 300
Gly Gly Ser Thr
305
```

<210> 31276
<211> 111
<212> PRT
<213> A.fumigatus

<400> 31276

```
Leu Pro Ile Asp Cys Phe Leu Ala Asp His Ile Gly Gly His Ile His
1               5                   10                  15
Ser Ser Thr Trp Val Pro Ser Ser Ser Leu Asp Tyr Arg Met Pro Glu
            20                  25                  30
Leu Val Arg Thr Leu Lys Asp Lys Glu Lys Val Val Phe His Cys Ala
        35                  40                  45
Leu Ser Gln Gln Arg Gly Pro Ala Ala Ala Leu Arg Tyr Ala Arg Glu
    50                  55                  60
Arg Glu Ala Ala Leu Gly Pro Glu Glu Ser Lys Lys Gln Gln Val Tyr
65                  70                  75                  80
Val Leu Glu Gly Gly Phe Val His Trp Gln Glu Lys Tyr Gly Lys Asp
                85                  90                  95
Thr Arg Leu Thr Glu Ala Tyr Val Glu Asp Ile Trp Arg Glu Tyr
            100                 105                 110
```

<210> 31277
<211> 235
<212> PRT
<213> A.fumigatus

<400> 31277

```
Arg Leu Tyr Ser Ile Pro His Gln Thr Cys His Gln Phe Leu His Ile
1               5                   10                  15
Ala Lys Met Glu Ala Arg Ser Leu Ala Arg Cys Leu Arg Leu Arg Pro
            20                  25                  30
Thr Thr Ser Leu Tyr Thr Arg Gln Pro Ile Ile Phe Arg Gly Gln Asp
        35                  40                  45
Ala Leu Arg Tyr Phe Ser Thr Ser Asn Ser Leu Leu Gln Thr Pro Pro
    50                  55                  60
Ala Ser Gln Asp Gln Pro Ser Ser Thr Thr Pro Ala Ser Pro Gln Asp
65                  70                  75                  80
Gln Ser Lys Val Gln Thr Ser Ser Ser Asn Ser Thr Ala Ser Asn Ser
                85                  90                  95
Asp Ser Ala Asp Phe Asp Arg Ile Leu Asp Gln Leu Asn Phe Asn Asn
            100                 105                 110
Ala Asn Arg Asn Ala Thr Glu Asp Ser Gln Ser Ser Asp Ser Leu Ser
        115                 120                 125
Leu Ser Arg Ser Val Ser Met Ala Ala Gly Thr Glu Ser Tyr Lys Gln
    130                 135                 140
Pro Leu Arg Arg Val Glu Leu Lys Leu Gly Pro Thr Leu Gly Arg Gln
145                 150                 155                 160
Val His Val Glu Pro Glu Lys Gly Leu Asp Leu Thr Thr Ala Leu Arg
                165                 170                 175
Val Leu Gln Gly Asn Val Thr Thr Asn Lys Val Arg Ala Gln Trp Tyr
            180                 185                 190
```

```
Ala Gln Lys Phe His Val Arg Arg Gly Gln Met Arg Lys Asn Leu Arg
        195                 200                 205
Met Glu Arg Trp Arg Lys Leu Phe Lys Phe Ser Phe Lys Gln Thr Val
    210                 215                 220
Asn Lys Ile Gln Arg Met Arg Ala Gln Gly Trp
225                 230                 235
```

<210> 31278
<211> 139
<212> PRT
<213> A.fumigatus

<400> 31278

```
Arg Ser Cys His Ser Ser Leu Ser Ile Ser Leu Leu Val Glu Tyr Ile
1               5                   10                  15
Arg His Ile Glu Ser Asn Ser Ile Ser Pro Leu Ser Leu Arg Gln Ser
            20                  25                  30
Ala Ser Ser Ala Thr Ala Gln Leu Pro Ala Pro Ile Leu Glu Phe Pro
        35                  40                  45
Arg His Thr Val Asp Asp Gly Pro Ser Ser Lys Arg Arg Arg Leu Val
    50                  55                  60
Ser Ser Ser Thr Ala Gly Ser Pro Ser Leu Arg Thr Tyr Ser Ser Thr
65                  70                  75                  80
Phe Pro Arg Leu Met Pro Ser Ser Ser Ser Ser Ala Ala Ser Ser Ala
                85                  90                  95
Ser Ser Thr Pro Ala Ala Pro His Ala Ser Phe Ser Ile Pro Gly Pro
            100                 105                 110
Thr Asp Ala Gly Pro Arg Ser His Ala Ser Ser Glu Thr Leu Arg Thr
        115                 120                 125
Ser Ser Ala Gly Ala Ala Phe Asp Lys Arg Ser
    130                 135
```

<210> 31279
<211> 63
<212> PRT
<213> A.fumigatus

<400> 31279

```
Arg Thr Val Ile Gln Thr Ala Glu Thr Gly Leu Leu Phe Asn Cys Arg
1               5                   10                  15
Glu Ser Lys Leu Glu Asp Leu Phe Leu His Ile Ser Lys Ala His Ala
            20                  25                  30
Ile Val Val Val Glu Cys Arg Phe Leu Arg Phe Leu Tyr Thr Arg Ser
        35                  40                  45
Ser Thr Arg Phe Ile Leu His Pro Trp Ser His Arg Arg Trp Pro
    50                  55                  60
```

<210> 31280
<211> 189
<212> PRT
<213> A.fumigatus

<400> 31280

```
Gly Thr Leu Pro Glu Phe Leu Pro Ile Asn Ile Gln Ser Met Ser Pro
1               5                   10                  15
Val Ala Leu Arg Met Ser Ser Lys Ala Leu Leu Pro Leu Ser Pro Leu
```

```
            20                  25                  30
Leu Arg Leu Ser Thr Ala Ser Pro Ala Leu Ala Arg Pro Cys Ser Pro
        35                  40                  45
Ser Pro Arg Thr Ser Ala Thr Leu Ala Pro Pro Thr Arg Gln Ala Pro
    50                  55                  60
Pro Pro Ser Ser Leu Ser Ser Ser Ser Phe Ser Pro Ser Phe Ser Pro
65                  70                  75                  80
Gln Gln Ala Asn Leu Ser Ser Pro Ser Ser Ser Arg Val Arg Ser Ser
                85                  90                  95
Val Ser Ser Ala Ser Thr Arg Ala Ala Leu Leu Ser Arg His Phe Ser
            100                 105                 110
Ser Tyr Thr Pro Pro Gln Ser Pro Asn Met Ser Tyr Thr Val Arg Lys
        115                 120                 125
Ile Gly Gln Ala Asn Thr Leu Glu His Arg Val Tyr Ile Glu Lys Asp
    130                 135                 140
Gly Val Pro Ile Ser Pro Phe His Asp Ile Pro Leu Tyr Ala Asn Pro
145                 150                 155                 160
Glu Gln Thr Ile Leu Asn Met Val Val Glu Ile Pro Arg Trp Thr Asn
                165                 170                 175
Ala Lys Gln Glu Val Arg Asn Ser Asp Pro Arg Asp Thr
            180                 185
```

<210> 31281
<211> 63
<212> PRT
<213> A.fumigatus

<400> 31281

```
Ile Ser Lys Glu Glu Phe Leu Asn Pro Ile Lys Gln Asp Val Lys Lys
1               5                   10                  15
Gly Lys Leu Arg Phe Val Arg Asn Cys Phe Pro His Lys Gly Tyr Leu
            20                  25                  30
Trp Asn Tyr Gly Ala Phe Pro Gln Val Ser Gln Leu His Glu His Gly
        35                  40                  45
Ala Arg Pro Gly Gln Ser Met Leu Thr Arg Asp Phe Ser Met Val
    50                  55                  60
```

<210> 31282
<211> 163
<212> PRT
<213> A.fumigatus

<400> 31282

```
Thr Trp Glu Asp Pro Asn Val Val His Pro Glu Thr Lys Ala Lys Gly
1               5                   10                  15
Asp Asn Asp Pro Leu Asp Val Cys Glu Ile Gly Glu Leu Val Gly Tyr
            20                  25                  30
Pro Gly Gln Val Lys Gln Val Lys Val Leu Gly Val Met Ala Leu Leu
        35                  40                  45
Asp Glu Glu Glu Thr Asp Trp Lys Val Ile Val Ile Asp Ile Asn Asp
    50                  55                  60
Pro Leu Ala Pro Lys Leu Asn Asp Ile Glu Asp Val Glu Arg His Leu
65                  70                  75                  80
Pro Gly Leu Leu Arg Ala Thr Asn Glu Trp Phe Arg Ile Tyr Lys Ile
                85                  90                  95
Pro Asp Gly Lys Pro Glu Asn Gln Phe Ala Phe Ser Gly Glu Cys Lys
```

```
            100                 105                 110
Asn Lys Lys Trp Val Pro Ser Tyr Cys Val Trp Tyr His Leu Ser Met
        115                 120                 125
Leu Thr Phe Leu Ile Ser Arg Tyr Ala Leu Asp Val Ile Arg Glu Cys
    130                 135                 140
Ala Asp Ala Trp Glu Lys Leu Ile Thr Gly Lys Ser Pro Arg Gly Asp
145                 150                 155                 160
Ile Ser Leu
```

<210> 31283
<211> 98
<212> PRT
<213> A.fumigatus

<400> 31283

```
Tyr Thr Ile Asn Val Pro Gly Gly Ser Ala His Glu Gln Gln Ser Thr
1               5                   10                  15
Thr Ala Pro Val Ser Ile Ala Pro Thr Val His Arg Leu Thr Gly Pro
            20                  25                  30
Arg Pro Pro Leu Phe Ala Gln Ser Ser His Ile Ser Asn Ala Gly Ser
        35                  40                  45
Pro His Ser Thr Ser Pro Ser Ser Leu Leu Pro Leu Val Leu Leu Leu
    50                  55                  60
Leu Ser Phe Leu Leu Pro Ser Thr Ser Lys Phe Val Phe Ala Ile Ile
65                  70                  75                  80
Val Lys Ser Ser Phe Val Cys Gln Leu Arg Val Asn Ser Cys Cys Ser
                85                  90                  95
Ser Phe
```

<210> 31284
<211> 77
<212> PRT
<213> A.fumigatus

<400> 31284

```
Ser Glu Leu Thr Thr Phe Val Tyr Ile Ser Ile Glu Gln Asp Ile Phe
1               5                   10                  15
Phe Phe Ser Ala Arg Gln Ala Ser Phe Tyr Gly Ser Ser Gln Gln Tyr
            20                  25                  30
Leu Ser Ser Lys Glu Arg Gly Phe Arg Ala Thr Cys Ile Ile Ser Phe
        35                  40                  45
Arg Gln Phe Leu Leu Asp Gln Thr Asn Arg Ile Ser Thr Glu Tyr Glu
    50                  55                  60
Gln Met Arg Glu Tyr Ala Lys Pro Leu Glu Gln Phe Phe
65                  70                  75
```

<210> 31285
<211> 136
<212> PRT
<213> A.fumigatus

<400> 31285

```
His Arg Lys Met Ile Pro Asp Ala Val Arg Arg Asn Pro Leu Leu Val
1               5                   10                  15
```

```
Leu Ala Leu Ala Arg Glu Gly Lys Leu Val Leu Arg Leu Ser Val Gly
            20                  25                  30
Asp Leu Val Asp Thr Glu Pro Phe Val Gly Ser Thr Glu Lys Ala Arg
        35                  40                  45
Lys Val Thr Leu Asn Ile Leu Asn Val Val Glu Leu Arg Gly Lys Arg
    50                  55                  60
Val Val Asp Ile Asn Asp Asp Asp Leu Pro Val Gly Leu Leu Leu Ile
65                  70                  75                  80
Glu Gln Ser His His Thr Lys Asn Leu Asp Leu Leu Asp Leu Thr Gly
                85                  90                  95
Ile Ala Asn Lys Leu Thr Asp Phe Thr Asp Ile Glu Arg Val Val Val
            100                 105                 110
Thr Leu Gly Leu Gly Leu Gly Val Asp Asn Val Gly Val Phe Pro Gly
        115                 120                 125
Leu Asn His Arg Glu Ile Ser Gly
    130                 135
```

<210> 31286
<211> 80
<212> PRT
<213> A.fumigatus

<400> 31286

```
Leu Phe Arg Pro Leu Pro Pro Ile His Tyr Pro Ala Met Ala Gln Ile
1               5                   10                  15
Arg Gly Thr Ala Gly Tyr Asn Leu Gly His Gln Asn Pro Phe Val Gly
            20                  25                  30
Pro Gly Arg Ala Asp Ala Thr Ser Asp Pro Ser Pro Leu Asp Ala Ile
        35                  40                  45
Arg Glu Gln Thr Ser Lys Ile Glu Asp Trp Leu Asp Thr Ile Ser Asp
    50                  55                  60
Pro Val Lys Pro Tyr Val Val Gln Phe His Leu Val Arg Glu Lys Gly
65                  70                  75                  80
```

<210> 31287
<211> 241
<212> PRT
<213> A.fumigatus

<400> 31287

```
Leu Leu Ala Ile Phe Leu Leu Leu Ala Val Ser Leu Leu Trp Ser Pro
1               5                   10                  15
Ser Ser Arg Thr Ala Tyr Val Leu Ser His Asn Gly Ala Ile Ser Ser
            20                  25                  30
Tyr Thr Ser Val Asn Thr Gly Lys Val Ser Val Pro Asp Ser Pro Phe
        35                  40                  45
Gln Tyr Ser Ser Ala Thr Asp Leu Ser His Asp Ile Leu Cys Pro Val
    50                  55                  60
Pro Trp Gly Ile Thr His Thr Phe Leu Ile Leu Asn Val Ile Ala Met
65                  70                  75                  80
Ser Val Cys Ser Phe Leu Val Ile Thr Arg Arg His Thr Glu Ile Ala
                85                  90                  95
Val Ala Gly Leu Leu Gly Val Val Val Thr Gln Gly Leu Gly Tyr Gly
            100                 105                 110
Leu Ile Phe Asp Leu Asn Phe Phe Leu Arg Asn Leu Ser Val Val Gly
        115                 120                 125
```

```
Gly Leu Leu Met Val Leu Ser Asp Ser Trp Val Arg Lys Lys Phe Val
    130                 135                 140
Pro Ala Gly Leu Pro Gln Leu Asp Glu Lys Asp Arg Lys Met Tyr Val
145                 150                 155                 160
Gln Phe Ala Gly Arg Val Leu Leu Ile Phe Leu Phe Val Gly Phe Val
                165                 170                 175
Phe Ser Gly Gln Trp Ser Leu Trp Arg Val Leu Val Ser Leu Phe Gly
            180                 185                 190
Phe Val Ala Cys Val Met Val Ile Val Gly Phe Lys Ala Lys Trp Ser
        195                 200                 205
Ala Ile Ile Leu Val Val Leu Leu Ser Val Phe Asn Val Leu Val Asn
    210                 215                 220
Asn Phe Trp Thr Val Arg Ser Phe Pro Tyr Ala Thr Asp Lys Ala Arg
225                 230                 235                 240
Asn
```

<210> 31288
<211> 68
<212> PRT
<213> A.fumigatus

<400> 31288

```
Leu Ser Leu Ser Ala Ala Pro Pro Pro Pro Pro Gln Gly Leu Cys Gln
1               5                   10                  15
Val Arg Leu Phe Pro Asp Ser Ile His Cys Val Gly Phe Cys Phe Pro
            20                  25                  30
Tyr Pro His Lys Tyr Ser Cys Pro Asn His Tyr Asn Ser Gly Gly Leu
        35                  40                  45
Leu Leu Leu Val Asn Met Gly Pro Gly Gln Leu Ser Met Asp Glu Lys
    50                  55                  60
Lys Lys Val Tyr
65
```

<210> 31289
<211> 628
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (38),(56)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31289

```
Ala Ser Thr Met Trp Val Cys Ser Arg Met Pro Trp Val Gly Tyr Asp
1               5                   10                  15
Glu Leu Pro Cys Gly Val Asn Lys Ala Ile His Glu Gln Leu Gln Gly
            20                  25                  30
Thr Gly Asp Gln His Xaa Gly Ala Phe Leu Thr Ala Ser Lys Asp Trp
        35                  40                  45
Arg Glu Lys Ala Met Ala Ala Xaa Gln Glu Ala Gly Ser Val Pro Ser
    50                  55                  60
Asn Glu Asp Asp Ala Val Lys Ser Val Ala Val Gly Glu Ile Asp Pro
65                  70                  75                  80
Glu Asp Phe Pro Leu Asp Ser Asn Arg Lys Pro Tyr Arg Glu Met Ile
```

```
                85                  90                  95
Leu Ala Ser Asp Ile Ser Ile Phe Asp Phe Arg Thr Tyr Val Phe Ser
            100                 105                 110
Arg Gln Leu Thr Leu Leu Leu Arg Ala Ala Arg Ala Pro Ser Leu Val
        115                 120                 125
Ala Thr Glu Thr Gly Ala Ser Gln Asn Gly Lys Gly Asp Lys Lys Pro
    130                 135                 140
Glu Asp Leu Met Leu Leu Ser Glu Leu Cys Glu Arg Ala Ala Asp Phe
145                 150                 155                 160
Ile Thr Leu Ala Ala Arg Thr Leu Arg Ala Asp Leu Asp Ser Gly Leu
                165                 170                 175
Ala Asp Val Asp His Pro Ser Lys Thr His Leu Ile Asn Asn Leu Val
            180                 185                 190
Ser Ser Trp Ala Tyr Ala Ala Ala Ser Gln Val Leu Val Gln Thr Tyr
        195                 200                 205
Thr Pro Lys Leu Thr Leu Pro Glu Ser Ser Leu His Ala Met Ser Lys
    210                 215                 220
Ala Val Ala Ala Thr Thr Pro Glu Pro Lys Pro Glu Val Pro Arg Arg
225                 230                 235                 240
Ser Ser Ser Leu Met Ser Pro Val Thr Thr Arg Pro Gly Arg Ser Asn
                245                 250                 255
Ser His Gly Ile Pro Leu Pro Asp Thr Leu Ala Asn Ala Ala Arg Pro
            260                 265                 270
Asp His Glu Ser Gln Lys Pro Val Pro Ala Phe Ile Pro Lys Thr Gly
        275                 280                 285
Ser Glu Gln Leu Ala Ser Gly Arg Gly Glu Leu Phe Ser Leu Ala Arg
    290                 295                 300
Arg Leu Leu Glu Glu Ile Ala Cys Arg Cys Gly Trp Asn Glu Lys Trp
305                 310                 315                 320
Lys Asp Leu Gly Leu Leu Phe Asp Asp Gln Asp Gln Gly Glu Gly Glu
                325                 330                 335
Met Thr Glu Val Ser Leu Asp Gly Gly Thr Asp Glu Lys Pro Asp Glu
            340                 345                 350
Lys Pro Asp Glu Lys Pro Asp Glu Lys Pro Lys Gly Glu Ser Leu Val
        355                 360                 365
Ser Asn Pro Leu Leu Gly Ile Asp Leu Leu Glu Leu Arg Thr Ala Leu
    370                 375                 380
Arg Ser Arg Lys Thr Phe Arg Ser His Tyr Glu Gln Leu Thr Asp Leu
385                 390                 395                 400
Val Tyr Arg His Tyr Val Met Ala Asn Arg Thr Tyr Ser Ala Gln Thr
                405                 410                 415
Ala Leu Ala Asp Met Ala Leu Leu Arg Tyr Arg Gln Asn Asp Tyr Asn
            420                 425                 430
Ala Ala Ala Ser Tyr Phe His Gln Ile Ile Pro Phe Tyr Gly Thr Lys
        435                 440                 445
Asn Trp Ile Leu Leu Glu Gly Ile Met Leu Glu Met Tyr Ala Arg Cys
    450                 455                 460
Leu Glu Gln Leu Lys Arg Ile Glu Glu Tyr Val Arg Thr Met Leu Arg
465                 470                 475                 480
Leu Leu Ala Lys Phe Ala Val His Thr His Ser Gly Leu Thr Ala Arg
                485                 490                 495
Glu Lys Thr Leu Asp Ala Ser Ser Ile Phe Thr Glu Gln Ser Leu Val
            500                 505                 510
Ser Arg Tyr Val Glu Lys Leu Phe Glu Ala Ser Gly Thr Leu Gln Lys
        515                 520                 525
Glu Val Ser Ala Pro Phe Ala Asp Phe Phe Ala Asp Leu Glu Val Lys
```

```
    530                 535                 540
Pro Ile Ile Ile His Tyr Gly Asp Lys Asp Gly Phe Gln Met Gln Leu
545                 550                 555                 560
Ser Leu Arg Phe Leu Leu Gly Lys Arg Ile Glu Ile Asp Ser Met Lys
                565                 570                 575
Val Arg Leu Val Ser Ala Ser Gly Pro His Ser Asn Glu Asn Trp Ile
            580                 585                 590
Glu Thr Ala Thr Lys Ala Ile Ile Lys Ser Ser Pro Thr Lys Val Leu
        595                 600                 605
Val Asp Ser Thr Val Ser Phe Ser Asp Pro Ser Lys Leu Leu Thr Leu
    610                 615                 620
Thr Glu Ile Ile
625
```

<210> 31290
<211> 94
<212> PRT
<213> A.fumigatus

<400> 31290

```
Leu Lys Ser Tyr Lys Ala Thr Leu Gln Gly Lys Tyr Phe Val Asp Arg
1               5                   10                  15
Leu Glu Met Arg Ala Gly Asn Ile Leu Phe Thr Leu Ala Gly Gly Thr
            20                  25                  30
His Pro Ala Leu Pro Val Gly Phe Arg Glu Val Leu Asp Ala Glu Glu
        35                  40                  45
Ala Asp Ser Arg Pro Tyr Val Tyr Cys Phe Pro Arg Pro Glu Gly Leu
    50                  55                  60
Gln Ala Lys Ile Thr Ser Pro His Leu Val Asn Leu Glu Gln Met Arg
65                  70                  75                  80
Thr Val Phe Thr Ala Gly Ile Glu Gly Ser Ile Ile Ile Asn
                85                  90
```

<210> 31291
<211> 235
<212> PRT
<213> A.fumigatus

<400> 31291

```
Val Arg Ser Val Arg Ser Leu Arg Ile Gly Phe Val Pro Ala Gln Leu
1               5                   10                  15
Glu Thr Asp Glu Arg Lys Pro Ser Ser Asp Thr Ser Arg Ser Ala Pro
            20                  25                  30
Val Ala His Arg Arg His Gln Ile Pro Gly Leu Arg Gln Thr Pro Tyr
        35                  40                  45
Leu Lys Ile Tyr Phe Leu Arg Cys Asp Asp Asn Glu Ser Tyr Lys Ala
    50                  55                  60
Thr Ala Arg Lys Ala Leu Arg Asp Trp Ile Lys Ala His Ala Ser Thr
65                  70                  75                  80
Pro Gln Ala Gly Ala Ser Ala Ala Ser Asn Gln Glu Lys His Asp Ala
                85                  90                  95
Phe Glu Trp Leu Ile Val His Val Val Gln Asp Gly Asp Gly Lys Glu
            100                 105                 110
Lys Ala Ala Pro Ala Ser Lys Trp Gly Arg Ser Thr Thr Thr Val Leu
        115                 120                 125
Glu Lys Ile Lys Ala Asp Phe Asn Gly Ser Ser Lys Ser Ala Val Asp
```

```
    130                 135                 140
Arg Val Ala Gln Leu Arg Leu Pro Arg Pro Gly Ser Thr Gln Arg Pro
145                 150                 155                 160
Thr Glu Leu Ala Asp Gln Val Glu Asp Leu Val Glu Lys Met Lys Asn
                165                 170                 175
Ala Ile Leu Ala Ser Phe Asp Leu Arg Val Ala Gln Tyr Glu Glu Asp
            180                 185                 190
Ile Lys Asp Asn Asp Ser Gln Arg Thr Leu Pro Gly Trp Asn Phe Cys
        195                 200                 205
Thr Phe Phe Ile Leu Asn Glu Gly Leu Ala Ile Gly Phe Asp Asn Val
    210                 215                 220
Gly Leu Phe Gln Asp Ala Leu Gly Arg Val Arg
225                 230                 235

<210> 31292
<211> 476
<212> PRT
<213> A.fumigatus

<400> 31292
Leu Glu Arg Tyr Lys Gly Lys Gln Leu Asp Leu Ser Leu Val Phe Arg
1               5                   10                  15
Leu Ser Gly Leu Ala Ser Gly Ala Lys Leu Glu Leu Val Gln Leu Ser
            20                  25                  30
Arg Ser Pro Ser Ile Val Thr Val Ala Leu Gln Leu Pro Glu Ala Glu
        35                  40                  45
Ala Arg Gly Val Pro Asn Gly Arg Leu Leu Asp Lys Phe Pro Ser Thr
    50                  55                  60
Thr Thr Leu Trp Leu Val Leu Arg Lys Phe Glu Ala Gly Val Ala Gly
65                  70                  75                  80
Gly Gly Pro Thr Arg Asn Phe Thr Gly Arg Gly Val Pro Val Ala Ser
                85                  90                  95
Ala Gly Asn Glu Gly Ser Gly Arg Leu Phe Tyr Glu Thr Pro Val Val
            100                 105                 110
Gln Ile Met Gly Arg Glu Leu Ser Thr Phe Glu Asp Leu Gln Lys Ser
        115                 120                 125
Leu Ala Gln Leu Gly Phe Asn Ser Gly Asn Val Leu Val Arg Leu Ser
    130                 135                 140
Phe Arg Arg Thr Glu Glu Pro Leu Glu Val Ala Met Val Lys Ile Gln
145                 150                 155                 160
Asp Tyr Phe Lys Ala Phe Glu Asp Ala Ala Pro Glu Pro Gln Glu Thr
                165                 170                 175
Ala Gly Val Pro Ala Gln Pro Lys Thr Val Ala Glu Ser Gln Pro Gly
            180                 185                 190
Gln Gln Val Pro Ser Ala Glu His Ala Glu Pro Leu Asp Ala Val Ala
        195                 200                 205
Ala Ala Ala Ala Ala Pro Ala Leu Ser Thr Gln Glu Pro Gly Pro Asp
    210                 215                 220
Ser His Pro Ser Ile Ala Ser Thr Glu Pro Ser Ala Val Thr Gln Pro
225                 230                 235                 240
Ser Ser Arg Pro Val Thr Val Phe Ser Ala Pro Ser Asn Thr Thr Pro
                245                 250                 255
Gln Ala Ala Arg Met Thr Tyr Asn Glu Asp Asp Tyr Ile Pro Ser Val
            260                 265                 270
Asp Gln Ala Gln Ala His Gln Arg Arg Leu Asn Ala Ala Ser Arg Pro
        275                 280                 285
```

Val Arg Leu Pro Thr Asp Ala Glu Ile Ala Ala Lys Ala Ala Glu Glu
290 295 300
Glu Glu Lys Arg Ala Ala Val Arg Glu Val Asp Val Lys Val Arg Leu
305 310 315 320
Pro Asp Gln Ser Gln Ile Val Ser Lys Phe Gly Gln Gln Asp Thr Gly
325 330 335
Ala Thr Leu Tyr Gly Phe Val Arg Ser Cys Leu Ser Glu Gln Phe Ala
340 345 350
Ser Glu Ser Phe Ile Leu Thr Ser Phe Pro Ala Gly Thr Pro Gly Leu
355 360 365
Gly Ala Lys Lys Ile Gln Ser Ile Ile Pro Asp Thr Asp Gln Thr Phe
370 375 380
Leu Ile Lys Asp Leu Gly Met Ile Gly Arg Val Leu Val Thr Phe Ser
385 390 395 400
Trp Asp Ala Ser Ala Ser Pro Ala Ala Arg Ser Thr Arg Ala Ser Leu
405 410 415
Leu Lys Pro Glu Leu Arg Asn Arg Ala Gln Glu Leu Lys Val Glu Gln
420 425 430
Pro Pro Glu Leu Met Asp Thr Ser Gln Asp Thr Leu Pro Ala Lys Val
435 440 445
Gly Gly Leu Gly Asp Arg Asp Arg Glu Lys Ser Gly Arg Lys Pro Gly
450 455 460
Gly Ile Pro Lys Trp Leu Lys Leu Pro Gly Lys Lys
465 470 475

<210> 31293
<211> 177
<212> PRT
<213> A.fumigatus

<400> 31293
Leu Asn Tyr His Pro His Ser His Ile Asn Pro Pro Lys Tyr Arg Cys
1 5 10 15
Pro Arg Cys Ser Thr Arg Thr Cys Ser Leu Pro Cys Ser Arg Arg His
20 25 30
Lys Leu Trp Ser Gln Cys Ser Gly Val Arg Asp Pro Ala Ala Tyr Leu
35 40 45
Lys Arg Ser Glu Leu Ala Thr Glu Ser Ala Phe Asp Arg Asp Phe Asn
50 55 60
Phe Ile Thr Lys Ile Glu Arg Ser Leu Glu Arg Ala Glu Arg Glu Ala
65 70 75 80
Glu Val Arg Gly Ile Pro Leu Asp Gly Thr Thr Ala Ala Asp Pro Ala
85 90 95
Val Leu Gly Leu Glu His Glu Leu Gly Gln Asp Gly Pro Asp Ala Glu
100 105 110
Ala Gly Ser Lys Arg Lys Arg Pro Glu Gln Gly Gly Tyr Val Lys Gly
115 120 125
Glu Ala Gly Phe Val Arg Gly Ala Gln Ala Ala Gly Val Arg Val Ile
130 135 140
Arg Ala Pro Arg Gly Met Ser Arg Asn Lys Ala Asn Ala Ser Lys Trp
145 150 155 160
Asn Pro Lys Asn Asp Phe Ser Phe Trp Val Val Arg Ala Val Ser Val
165 170 175
Cys

<210> 31294
<211> 181
<212> PRT
<213> A.fumigatus

<400> 31294
Gln Thr Arg Gln Ala Ser Ser Leu Arg Ser Arg Lys Ser Pro Ser Ser
1 5 10 15
Thr Leu Val Ser Leu Ser Arg Gln Pro Cys Ser Thr Leu Pro Val Asp
20 25 30
Ser Arg Ala Asn Pro Ser Trp Ser Leu Gln Arg Lys Asn Ser Pro Arg
35 40 45
Gly Ser Arg Thr Lys Gly Glu Phe Phe Leu Phe Pro Thr Thr Ile Val
50 55 60
Cys Ile Gln Arg Leu Asn Arg Asn Arg Lys Gly Ala Phe Asn Phe Ala
65 70 75 80
Lys Ser Ala Leu Pro Leu Leu Leu Gln Ala Gln Gly Leu Gln His Pro
85 90 95
Pro Thr Leu Ile Phe Thr Gly Ala Thr Ala Ser Val Lys Gly Ser Ala
100 105 110
Asn Phe Ala Ala Phe Ala Thr Gly Lys Phe Ala Leu Arg Ala Leu Ala
115 120 125
Gln Ser Leu Ala Arg Glu Phe Gly Pro Lys Gly Val His Val Ser His
130 135 140
Val Ile Ile Asp Gly Val Ile Asp Ile Pro Arg Thr Lys Ala Trp Thr
145 150 155 160
Phe Glu His Glu Asp Ala Lys Leu Asp Pro Asp Ala Val Arg Cys Phe
165 170 175
Phe Leu Val Trp Asn
180

<210> 31295
<211> 102
<212> PRT
<213> A.fumigatus

<400> 31295
His Glu Gln Gly Ala Ser Ile Ala Arg Arg Phe Ala Lys Ala Tyr Ser
1 5 10 15
Val Val Val Leu Ser Arg Asn Pro Ala Asn Phe Glu Pro Leu Val Gln
20 25 30
Glu Ile Asn Ser Ser Gly Gly Gln Ala Leu Gly Ile Ser Ala Asp Val
35 40 45
Thr Asp Pro Thr Ser Val Lys Ser Ala Phe Glu Lys Ile Ala Gln Gln
50 55 60
Tyr Ala Gly Val Pro Leu Ala Ala Ala Val Phe Asn Pro Ala Gly Gly
65 70 75 80
Phe Thr Arg Lys Pro Phe Leu Glu Leu Thr Glu Glu Lys Phe Ser Gln
85 90 95
Gly Phe Glu Asn Gln Gly
100

<210> 31296
<211> 747
<212> PRT
<213> A.fumigatus

<400> 31296
Arg Arg Thr Pro Pro Lys Pro Gln Pro Glu Pro Ala Pro Glu Gln Thr
1 5 10 15
Ala Pro Asp Asp Ala Trp Gly Gly Trp Asp Val Pro Lys Lys Glu Lys
20 25 30
Asn Asn Lys Lys Gly Lys Ala Ala Glu Pro Glu Pro Glu Pro Glu Pro
35 40 45
Ile Pro Glu Ser Glu Leu Val Pro Glu Pro Glu Pro Glu Pro Glu Pro
50 55 60
Val Pro Glu Pro Ala Ala Glu Pro Glu Pro Glu Pro Glu Pro Glu Pro
65 70 75 80
Glu Pro Glu Lys Lys Ala Ser Gly Leu Pro Asp Asp Pro Leu Tyr Asp
85 90 95
Asn Trp Val Asn Leu Ser Ser Lys Glu Arg Lys Lys Arg Glu Lys Ala
100 105 110
Leu Lys Lys Lys Gly Leu Pro Ile Pro Gly Lys Asp Ile Glu Ile Pro
115 120 125
Pro Pro Glu Ala Glu Pro Ala Leu Glu Ala Ala Pro Glu Pro Pro Leu
130 135 140
Glu Pro Glu Pro Glu Pro Ala Ala Glu Pro Glu Pro Glu Pro Glu Pro
145 150 155 160
Val Val Glu Ser Gln Pro Glu Pro Glu Pro Val Ser Glu Pro Val Gln
165 170 175
Glu Glu Pro Val Val Glu Asp Ser Trp Gly Ile Trp Thr Ser Pro Lys
180 185 190
Asp Lys Lys Lys Pro Lys Lys Asn Lys Ile Ala Val Asp Pro Pro Pro
195 200 205
Pro Ala Pro Thr Pro Pro Ser Leu Gly Leu Asp Pro Asp Pro Pro Val
210 215 220
Pro Glu Glu Val Ala Glu Asp Leu Leu Phe Glu Asn Asp Thr Lys Pro
225 230 235 240
Ser Lys Gly Thr Lys Lys Gly Ser Phe Gly Val Asp Glu Thr Pro Thr
245 250 255
Lys Ala Val Arg Gly Phe Trp Ala Thr Phe Gly Ala Ala Thr Met Gly
260 265 270
Ser Arg Pro Lys Ala Thr Arg Lys Arg Ser Glu Glu Lys Pro Lys Leu
275 280 285
Ile Glu Pro Ala Lys Glu Pro Gly Pro Glu Gln Glu Pro Pro Val Pro
290 295 300
Ala Pro Glu Pro Leu Ala Asp Leu Leu Gly Asp Ile Gly His Ala Pro
305 310 315 320
Met Pro Glu Ala Pro Glu Pro Pro Leu Ile Asp Glu Pro Ala Ala Pro
325 330 335
Ala Ala Pro Pro Ala Lys Ser Thr Ser Lys Ala Lys Ser Ser Thr Lys
340 345 350
Leu Ser Val Ala Glu Arg Ile Lys Ala Leu Glu Gln Ala Lys Lys Glu
355 360 365
Arg Leu Lys Glu Lys Ala Lys Ala Lys Glu Thr Val Ser Pro Pro Glu
370 375 380
Pro Pro Asn Gln Glu Pro Ala Val Glu Ile Pro Pro Glu Pro Val Glu
385 390 395 400
Ala Pro Lys Ile Ser Arg Glu Ser Val Pro Gly Ser Phe Pro Asp Ala
405 410 415
Phe Glu Asp Asp Phe Gln Glu Pro Pro Pro Pro Ala Pro Glu Pro Glu
420 425 430

```
Pro Glu Pro Ser Ile Asp Pro Pro Pro Glu Pro Glu Pro Glu Pro Glu
        435                 440                 445
Leu Ala Pro Ala Pro Ala Pro Leu Ser Lys Lys Ala Glu Lys Lys Lys
    450                 455                 460
Lys Lys Lys Gly Lys Leu Val Glu Pro Glu Pro Glu Leu Thr Pro Ala
465                 470                 475                 480
Pro Glu Pro Glu Pro Glu Pro Glu Ser Ala Gln Pro Glu Pro Glu Pro
                485                 490                 495
Glu Pro Glu Pro Ala Pro Ala Pro Glu Pro Glu Pro Glu Leu Ala Pro
            500                 505                 510
Val Pro Val Gln Leu Ser Lys Thr Glu Lys Lys Lys Lys Thr Met Ala
        515                 520                 525
Lys Ala Val Glu Pro Glu Pro Ala Pro Pro Glu Pro Glu Pro Glu Pro
    530                 535                 540
Glu Arg Ala Leu Gly Pro Glu Pro Glu Pro Glu Pro Glu Pro Glu Pro
545                 550                 555                 560
Glu Pro Glu Pro Ala Pro Glu Pro Ala Ala Glu Pro Val Asp Pro Pro
                565                 570                 575
Thr Gln Glu Pro Lys Ala Thr Lys Lys Thr Lys Lys Ser Ser Lys Ser
            580                 585                 590
Lys Met Ser Glu Pro Ala Met Glu Val Pro Pro Ala Arg Asp Val Pro
        595                 600                 605
Ala Glu Glu Pro Gly Ala Asp Ala Gly Gly Ser Pro Thr Pro Pro Pro
    610                 615                 620
Glu Pro Ala Ala Pro Gly Lys Ser Ala Lys Lys Glu Arg Ala Arg Val
625                 630                 635                 640
Glu Arg Thr Pro Gly Val Ala Ser Trp Gly Phe Trp Gly Ala Thr Pro
                645                 650                 655
Ala Pro Arg Lys Ser Ala His Arg Glu Val Arg Ser Ser Arg Ala Glu
            660                 665                 670
Pro Ser Ser Gly Glu Val Val Arg Ser Lys Ser Thr Lys Tyr Ser Arg
        675                 680                 685
Arg Glu Glu Val Pro Tyr Glu Ala Glu Lys Thr Ser Gly Ser Asp Arg
    690                 695                 700
Asp Lys Arg Gln Gly Ser Lys Glu Asp Arg Ala Thr Thr Phe Ser Asn
705                 710                 715                 720
Phe Ile Leu Gly Gly Pro Ala Pro Thr Arg Met Lys Val Phe Thr Thr
                725                 730                 735
Gly Leu Glu Gly Ser Ala Ser Gln Leu Lys Ser
            740                 745
```

<210> 31297
<211> 598
<212> PRT
<213> A.fumigatus

<400> 31297

```
Gly Thr Ser Ser Arg Leu Glu Tyr Leu Val Asp Phe Asp Arg Thr Thr
1               5                   10                  15
Ser Pro Asp Glu Gly Ser Ala Arg Leu Asp Leu Thr Ser Leu Trp Ala
            20                  25                  30
Asp Phe Leu Gly Ala Gly Val Ala Pro Gln Lys Pro His Glu Ala Thr
        35                  40                  45
Pro Gly Val Arg Ser Thr Arg Ala Arg Ser Phe Phe Ala Asp Phe Pro
    50                  55                  60
Gly Ala Ala Gly Ser Gly Gly Gly Val Gly Glu Pro Pro Ala Ser Ala
```

65 70 75 80
Pro Gly Ser Ser Ala Gly Thr Ser Leu Ala Gly Gly Thr Ser Met Ala
85 90 95
Gly Ser Leu Ile Leu Asp Leu Glu Leu Phe Leu Val Phe Leu Val Ala
100 105 110
Phe Gly Ser Trp Val Gly Gly Ser Thr Gly Ser Ala Ala Gly Ser Gly
115 120 125
Ala Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly
130 135 140
Pro Ser Ala Arg Ser Gly Ser Gly Ser Gly Ser Gly Gly Ala Gly Ser
145 150 155 160
Gly Ser Thr Ala Leu Ala Ile Val Phe Phe Phe Phe Ser Val Phe Glu
165 170 175
Ser Cys Thr Gly Thr Gly Ala Ser Ser Gly Ser Gly Ser Gly Ala Gly
180 185 190
Ala Gly Ser Gly Ser Gly Ser Gly Ser Gly Cys Ala Asp Ser Gly Ser
195 200 205
Gly Ser Gly Ser Gly Ala Gly Val Ser Ser Gly Ser Gly Ser Thr Ser
210 215 220
Leu Pro Phe Phe Phe Phe Phe Phe Ser Ala Phe Leu Asp Lys Gly Ala
225 230 235 240
Gly Ala Gly Ala Ser Ser Gly Ser Gly Ser Gly Ser Gly Gly Gly Ser
245 250 255
Ile Asp Gly Ser Gly Ser Gly Ser Gly Ala Gly Gly Gly Gly Ser Trp
260 265 270
Lys Ser Ser Ser Lys Ala Ser Gly Lys Leu Pro Gly Thr Asp Ser Arg
275 280 285
Glu Ile Leu Gly Ala Ser Thr Gly Ser Gly Gly Ile Ser Thr Ala Gly
290 295 300
Ser Trp Leu Gly Gly Ser Gly Gly Asp Thr Val Ser Leu Ala Phe Ala
305 310 315 320
Phe Ser Phe Ser Leu Ser Phe Leu Ala Cys Ser Arg Ala Leu Met Arg
325 330 335
Ser Ala Thr Glu Ser Leu Val Asp Asp Leu Ala Leu Glu Val Leu Phe
340 345 350
Ala Gly Gly Ala Ala Gly Ala Ala Gly Ser Ser Ile Arg Gly Gly Ser
355 360 365
Gly Ala Ser Gly Ile Gly Ala Cys Pro Met Ser Pro Ser Arg Ser Ala
370 375 380
Arg Gly Ser Gly Ala Gly Thr Gly Gly Ser Cys Ser Gly Pro Gly Ser
385 390 395 400
Phe Ala Gly Ser Met Ser Phe Gly Phe Ser Ser Asp Leu Phe Leu Val
405 410 415
Ala Phe Gly Leu Glu Pro Ile Val Ala Ala Pro Asn Val Ala Gln Asn
420 425 430
Pro Leu Thr Ala Leu Val Gly Val Ser Ser Thr Pro Lys Asp Pro Phe
435 440 445
Leu Val Pro Leu Glu Gly Leu Val Ser Phe Ser Asn Arg Arg Ser Ser
450 455 460
Ala Thr Ser Ser Gly Thr Gly Gly Ser Gly Ser Arg Pro Ser Glu Gly
465 470 475 480
Gly Val Gly Ala Gly Gly Gly Gly Ser Thr Ala Ile Leu Phe Phe Leu
485 490 495
Gly Phe Phe Leu Ser Phe Gly Glu Val Gln Ile Pro Gln Leu Ser Ser
500 505 510
Thr Thr Gly Ser Ser Cys Thr Gly Ser Glu Thr Gly Ser Gly Ser Gly

```
        515                 520                 525
Cys Asp Ser Thr Thr Gly Ser Gly Ser Gly Ser Gly Ser Ala Ala Gly
    530                 535                 540
Ser Gly Ser Gly Ser Lys Gly Gly Ser Gly Ala Ala Ser Ser Ala Gly
545                 550                 555                 560
Ser Ala Ser Gly Gly Gly Ile Ser Met Ser Phe Pro Gly Ile Gly Arg
                565                 570                 575
Pro Phe Phe Phe Asn Ala Phe Ser Arg Phe Phe Arg Ser Phe Asp Asp
            580                 585                 590
Lys Phe Thr Gln Leu Ser
        595
```

<210> 31298
<211> 139
<212> PRT
<213> A.fumigatus

<400> 31298

```
Val Gly Leu Gln Ala Arg Gln Gln Ala Gln Ala Gln Ala Gln Ala Gln
1               5                   10                  15
Ala Pro Ala Pro Ala Pro Val Arg Ala Gln Ala Gln Ala Pro Ala Leu
            20                  25                  30
Ala Leu Ala Gln Val Leu Val Ala Arg Val Gln Val Arg Gln Pro Trp
        35                  40                  45
Pro Ser Phe Ser Ser Phe Ser Gln Ser Ser Arg Ala Val Leu Val Gln
    50                  55                  60
Val Gln Ala Gln Val Gln Ala Gln Ala Gln Val Leu Val Leu Val Leu
65                  70                  75                  80
Val Pro Ala Gln Ala Ala Gln Ile Pro Ala Leu Val Leu Ala Gln Ala
                85                  90                  95
Leu Val Ser Ala Gln Ala Arg Ala Pro Leu Ala Tyr Pro Ser Ser Phe
            100                 105                 110
Ser Ser Ser Pro Leu Phe Trp Thr Lys Glu Pro Gly Leu Glu Gln Ala
        115                 120                 125
Gln Ala Gln Ala Gln Ala Gln Ala Val Asp Gln
    130                 135
```

<210> 31299
<211> 240
<212> PRT
<213> A.fumigatus

<400> 31299

```
Lys Ala Trp Cys His Ser Arg Ile Gly Asp Pro Pro Pro Pro Leu Pro
1               5                   10                  15
Glu Gln Glu Gly Arg Gly Pro Gly Leu Val Arg Glu Val Leu Gly Gln
            20                  25                  30
Gly Ala Ala Gly Gln Arg Gln Ser Cys Ser Ser Trp Ala Ser Ser Cys
        35                  40                  45
Pro Leu Gly Arg Ser Arg Tyr Pro Ser Tyr Pro Gln Leu Gln Val Leu
    50                  55                  60
Pro Val Leu Val Arg Lys Leu Ala Gln Ala Leu Val Val Ile Gln Arg
65                  70                  75                  80
Pro Ala Gln Val Leu Ala Arg Ala Gln Arg Leu Ala Gln Val Arg Val
                85                  90                  95
Pro Lys Glu Val Gln Glu Pro Leu Leu Ala Gln Ala Leu Leu Leu Val
```

```
            100                 105                 110
Val Glu Ser Arg Cys Pro Phe Gln Val Ser Glu Gly Leu Ser Phe Leu
        115                 120                 125
Met Pro Ser Arg Val Phe Ser Ala Pro Leu Thr Thr Asn Leu Pro Asn
    130                 135                 140
Cys Arg Lys Glu Gly His Arg Ala Ile Gln Arg Leu Ser Phe Gln Val
145                 150                 155                 160
Gln Ala Pro Ala Pro Ala Gln Val Gln Val Arg Pro Gln Ala Arg Ala
                165                 170                 175
Gln Ala Arg Val Arg Val Gln Val Gln Val Gln Val Gln Ile Gln Glu
            180                 185                 190
Trp Val Arg Ala Arg Ala Gln Val Gln Pro Pro Ser Pro Phe Tyr Cys
        195                 200                 205
Ser Ser Leu Ser Trp Glu His Pro Ser Leu Pro Arg His His Arg Val
    210                 215                 220
Pro Phe Ala Leu Val Gln Val Pro Val Ala Val Ser Gly Ala Phe Phe
225                 230                 235                 240

<210> 31300
<211> 258
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (72)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31300
Pro Val Glu Gly Ser Glu Thr Pro Ala Asp Gly Thr Pro Ala Glu Glu
1               5                   10                  15
Asn Thr Glu Lys Lys Glu Glu Ala Glu Lys Lys Asp Asp Lys Pro Ala
            20                  25                  30
Lys Pro Ser Gly Pro Thr Pro Ala Tyr Val Ser Pro Ala Glu Tyr Ser
        35                  40                  45
Ser Arg Ser Leu Pro Pro Thr Leu Pro Gln Ser Leu Asp Ser Ser Val
    50                  55                  60
Pro Ile Pro Phe Pro His Leu Xaa Gly Phe Leu Asn Thr Pro Ile Arg
65                  70                  75                  80
Leu Tyr Arg Tyr Leu Ser Arg Arg His Ile Ala Asp Glu Ile Gly Arg
                85                  90                  95
Glu Val Ala Gly Leu Val Leu Ala Ser Ser Ser Arg Pro Tyr His Asp
            100                 105                 110
Gly Ser Phe Ser Ser Asp Ser Glu Leu Ser Gly Ala Met Val Asp Ala
        115                 120                 125
Gly Ala Ser Thr Leu Ser Ser Pro Asp Asp Met Met Pro Ser Ser Ser
    130                 135                 140
Ala Lys Tyr Glu Gln Gln Thr Val Leu Glu Lys Glu Glu Ser Glu Trp
145                 150                 155                 160
His Lys Ser Val His Lys Arg Asp Glu Glu Asn Pro Asp Lys Glu Arg
                165                 170                 175
Glu Trp Ile Asp Asp Ile Val Leu Asp Pro Arg Ile Ala Ser Arg Met
            180                 185                 190
Gln Arg Ser Leu Leu Ser Ala Asp Glu Glu Ala Arg Ser Gln Arg Ile
        195                 200                 205
Thr Glu Gly Lys Glu Tyr Ile Leu Gly Glu Glu Arg Pro Ala Pro Val
```

```
    210                 215                 220
Ser Phe Trp Gln Arg Met Trp Ile Lys Tyr Gly Tyr Gly Glu Asp Glu
225                 230                 235                 240
Glu Thr Ile Arg Met Lys Pro Ile Ile Gly Asn Leu Asp Gly Ala Asp
                245                 250                 255
Gly Glu
```

<210> 31301
<211> 572
<212> PRT
<213> A.fumigatus

<400> 31301

```
Gly Tyr Val Gln Ser Arg Ser Ala Met Leu Gln Ala Arg Pro Gly Phe
1               5                   10                  15
Arg Gln Asn Trp Thr Ala Leu Ala Ile Ala His His Leu Ala Gly Asp
            20                  25                  30
Leu Glu Glu Ala Glu Lys Val Leu Thr Thr Tyr Glu Glu Thr Leu Lys
        35                  40                  45
Gln Gln Pro Pro Ile Ser Asp Met Glu His Ser Glu Ala Val Leu Tyr
    50                  55                  60
Lys Asn Met Ile Met Ala Glu Ala Gly Lys Val Gln Gln Ala Leu Asp
65                  70                  75                  80
His Leu Glu Thr Ile Gly Tyr Arg Ile Thr Asp Val Leu Ala Val Met
                85                  90                  95
Glu Met Lys Ala Asp Tyr Leu Leu Arg Leu Asp Arg Lys Ala Glu Ala
            100                 105                 110
Glu Ala Ala Tyr Thr Ala Leu Leu Glu Arg Asn Pro Glu Asn Ser Ile
        115                 120                 125
Tyr Tyr Asp Gly Leu Ile Arg Ala Lys Gly Ile Ser Glu Ser Asp His
    130                 135                 140
Ala Ala Leu Lys Ala Phe Tyr Asp Ala Trp Ala Asp Lys His Pro Arg
145                 150                 155                 160
Gly Asp Ala Pro Arg Arg Ile Pro Leu Asp Phe Leu Glu Gly Glu Glu
                165                 170                 175
Phe Lys Gln Ala Ala Asp Ala Tyr Leu Gln Arg Met Leu Lys Lys Gly
            180                 185                 190
Val Pro Ser Leu Phe Ala Asn Ile Lys Ser Leu Tyr Thr Asn Pro Ser
        195                 200                 205
Lys Arg Asp Thr Val Gln Glu Leu Val Glu Ser Tyr Val Ser Gly Asn
    210                 215                 220
Gly Thr Ala Glu Ser Asn Gly Ser Ala Glu Gly Ala Ala Thr Lys Asp
225                 230                 235                 240
Ser Thr Glu Phe Leu Ala Ser Thr Tyr Tyr Phe Leu Ala Gln His Tyr
                245                 250                 255
Asn Tyr His Leu Ser Arg Asn Leu Ser Lys Ala Met Glu Cys Val Asp
            260                 265                 270
Lys Ala Ile Glu Leu Ala Pro Lys Ala Val Glu Tyr Gln Met Thr Lys
        275                 280                 285
Ala Arg Ile Trp Lys His Tyr Gly Asn Leu Gln Lys Ala Ala Glu Glu
    290                 295                 300
Met Glu Lys Ala Arg Leu Leu Asp Glu Lys Asp Arg Tyr Ile Asn Ser
305                 310                 315                 320
Lys Ala Ala Lys Tyr Gln Leu Arg Asn Asn Asp Asn Glu Lys Ala Leu
                325                 330                 335
```

```
Asp Asn Met Ser Lys Phe Thr Arg Asn Glu Thr Val Gly Gly Ala Leu
            340                 345                 350
Gly Asp Leu His Glu Met Gln Cys Val Trp Tyr Leu Thr Glu Asp Gly
        355                 360                 365
Glu Ser Tyr Leu Arg Gln Lys Lys Leu Gly Leu Ala Leu Lys Arg Phe
    370                 375                 380
His Gly Val Asn Asn Ile Phe Asp Val Trp Gln Glu Asp Gln Phe Asp
385                 390                 395                 400
Phe His Ser Phe Ser Leu Arg Lys Gly Met Ile Arg Ala Tyr Val Asp
                405                 410                 415
Met Val Arg Trp Glu Asp Arg Leu Arg Glu His Pro Phe Tyr Thr Arg
            420                 425                 430
Met Ala Leu Ser Ala Ile Lys Ala Tyr Ile Leu Leu His Asp Glu Pro
        435                 440                 445
Asp Leu Ala His Gly Pro Leu Pro Ser Gly Leu Asn Gly Ser Gly Asp
    450                 455                 460
Gln Asp Asp Ala Glu Arg Lys Lys Ala Leu Lys Lys Ala Lys Lys Glu
465                 470                 475                 480
Gln Gln Arg Leu Glu Lys Ile Glu Ala Glu Lys Arg Glu Ala Arg Lys
                485                 490                 495
Ala Ala Ala Ala Thr Ala Lys Gly Ala Asp Gly Glu Thr Lys Lys Glu
            500                 505                 510
Asp Pro Asp Pro Leu Gly Asn Lys Leu Val Gln Thr Gln Asp Pro Leu
        515                 520                 525
Lys Asp Ala Thr Lys Phe Leu Thr Pro Leu Leu Glu His Ser Pro Lys
    530                 535                 540
Asn Ile Glu Ala Gln Cys Leu Gly Phe Glu Val Tyr Leu Arg Gln Ser
545                 550                 555                 560
Lys Tyr Asn Ser Leu Gly Met Pro Leu Glu Ile Gly
                565                 570
```

<210> 31302
<211> 101
<212> PRT
<213> A.fumigatus

<400> 31302

```
Val Gln Phe Thr Trp Asp Ala Phe Gly Asn Trp Leu Lys Pro Leu Ile
1               5                   10                  15
Glu Lys Tyr Ala Leu Ala Leu Lys Cys Leu Ala Ala Ala His Gln Ile
            20                  25                  30
Asp Ala Ser Asn Pro Thr Leu His Val Gln Leu Leu Arg Phe Arg Lys
        35                  40                  45
Ala Leu Asp Ser Leu Ser Glu Pro Leu Ala Pro Glu Val Ala Glu Val
    50                  55                  60
Val Asn Thr Glu Phe Glu Lys Leu Leu Pro Lys Ser Gln Asn Leu Glu
65                  70                  75                  80
Glu Trp Asn Asn Ser Phe Leu Ser Ala His Lys Glu Ser Pro Leu Cys
                85                  90                  95
Asn Thr Ser Pro Val
            100
```

<210> 31303
<211> 72
<212> PRT
<213> A.fumigatus

<400> 31303
Gly Asp Gln Cys Arg Thr Ile Ala Ile Lys Ala Val Ala Lys Ala Asn
1 5 10 15
Gly Leu Asp Leu Asp Ile Arg Glu Thr Pro Arg Thr Pro Asp His Leu
20 25 30
Ser Ile Ser Lys Leu Gly Lys Val Pro Ala Phe Gln Gly Ala Asp Gly
35 40 45
Phe Lys Leu Phe Glu Cys Met Ala Ile Ala Leu Tyr Ser Glu Leu Arg
50 55 60
Tyr Pro Val Gly Val Ile Glu Asn
65 70

<210> 31304
<211> 105
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (20),(23),(44)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31304
Gln Pro Ser Ser Val Thr Ser Gln Asn Glu Gln Thr Thr Leu Ser Arg
1 5 10 15
Lys Asp Lys Xaa Glu Tyr Xaa Glu Ile Ile Lys Trp Met Ser Phe Phe
20 25 30
Asn Thr Glu Ile Val Ile Leu Met Thr Pro Thr Xaa Thr Ala Gln Leu
35 40 45
Gly Val Asn Pro Tyr Asp Arg Glu Gln Val Glu Val Phe Arg Thr Met
50 55 60
Thr His Asp Ser Ser Ile Val Ser Arg Ser Ile Ala Gly Pro Thr Phe
65 70 75 80
Leu Gly Gly Asp Ser Ser Pro Leu Trp Asn Cys Leu Gly Arg Lys His
85 90 95
Leu Leu Gly Phe Gln Ser Ser Thr Ala
100 105

<210> 31305
<211> 221
<212> PRT
<213> A.fumigatus

<400> 31305
Ser Asp Trp Ser Trp Arg Leu Pro Ser Leu Leu Gln Ala Ile Cys Thr
1 5 10 15
Val Val Ile Ile Ala Gly Ile Trp Trp Met Pro Glu Ser Pro Arg Trp
20 25 30
Leu Met Asn Lys Gly Arg His Glu Glu Ala Leu Glu Ile Leu Val Lys
35 40 45
Tyr His Ala Glu Gly Asp His Asn Asp Glu Phe Val Gln Leu Glu Tyr
50 55 60
Ser Glu Ile Lys Ala Ala Ile Ala Leu Asp Lys Glu Ile Gly His Thr
65 70 75 80
Gly Trp Val Asp Phe Leu Arg Ser Lys Gly Asn Arg Lys Arg Ile Ala

```
                85                  90                  95
Leu Ile Thr Ala Leu Gly Leu Phe Ser Gln Trp Ser Gly Asn Gly Leu
            100                 105                 110
Ile Ser Tyr Tyr Leu Lys Tyr Val Met Asp Ser Val Gly Ile Lys Asp
        115                 120                 125
Ala Gln Thr Gln Leu Gly Ile Asn Ala Gly Met Lys Thr Glu Gly Leu
    130                 135                 140
Val Val Asn Phe Ile Phe Ala Phe Phe Ile Asp Ile Leu Gly Arg Arg
145                 150                 155                 160
Pro Val Tyr Leu Thr Ser Thr Ile Gly Thr Phe Val Val Phe Asn Ala
                165                 170                 175
Trp Thr Ile Val Ser Ala Arg Tyr Glu Ile Ala Pro Asn Lys Ala Leu
            180                 185                 190
Gly Tyr Ala Phe Val Phe Leu Thr Phe Leu Tyr Gly Val Phe Tyr Asp
        195                 200                 205
Ile Lys Ser Val Ser Ser Cys His Ala Leu His Phe Cys
    210                 215                 220
```

<210> 31306
<211> 126
<212> PRT
<213> A.fumigatus

<400> 31306

```
Arg Met Asp Arg Ser Gly Leu Met Ala Asn Tyr Thr Thr Glu Ile Leu
1               5                   10                  15
Pro Tyr Gly Leu Arg Ala Lys Gly Phe Thr Trp Leu Asn Phe Cys Val
            20                  25                  30
Thr Ala Ala Leu Phe Phe Asn Gln Tyr Ile Asn Ala Ile Ala Leu Asp
        35                  40                  45
Ala Leu Ala Trp Lys Tyr Tyr Ile Val Tyr Cys Val Phe Leu Gly Phe
    50                  55                  60
Glu Val Phe Val Ile Tyr Ser Phe Leu Ile Glu Thr Arg Tyr Thr Pro
65                  70                  75                  80
Met Glu Glu Ile Ala Lys Tyr Phe Asp Gly Glu Asp Ala Val Asp Val
                85                  90                  95
Gly Gln Ile Ala Ala Ala Asp Leu Lys Glu Gln Gly Ile Ile Ala Ser
            100                 105                 110
Asp Asp Lys Gly Thr Ala Thr Ile His Ile Glu Lys Asn Glu
        115                 120                 125
```

<210> 31307
<211> 210
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (34),(42),(71),(78)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31307

```
Lys His His Gly Arg Gly Arg Lys His Met Ala Pro Ser Phe Ser Ser
1               5                   10                  15
Ala Val Val His Val Phe Ser Ser Met Gly Asp Asp His Asp Ser Phe
            20                  25                  30
```

```
Val Xaa Thr Leu Leu Gln Leu Gln Gln Xaa Thr Pro Ala Gln Leu Phe
        35                  40                  45
His Ala Val Lys Ser Tyr Arg Pro Glu Val Gly Glu Lys Val Leu Thr
    50                  55                  60
Lys Gln Ala Met Lys Phe Xaa Leu Asp Phe Gln Arg Asp Xaa Asp Leu
65                  70                  75                  80
Leu Ala Arg Glu Gln Leu Arg Leu Gln Gly Ala Ala Glu Gln Gly Thr
                85                  90                  95
Ala Asp Glu Pro Gly Pro Lys Asp Gly Arg Pro Glu Thr Pro Lys Gln
            100                 105                 110
Asp Arg Pro Ser Asn Ala Pro Ala Pro Val Thr Pro Glu Ala Ser Thr
        115                 120                 125
His Ser Met Ala Ser Pro Gly Ser Ala Ser Ala Ser Pro Arg Pro Gly
    130                 135                 140
Gln Pro Ser Arg Pro Asp Glu Arg Asn Gly Thr Asn Ser Val Phe Leu
145                 150                 155                 160
Asp Pro Ser Leu Thr Leu Pro Phe Ser Leu Pro Thr Ser Thr Asp Met
                165                 170                 175
Leu Ile Ser Tyr Gly Ala Gly Trp Gly Gly Thr Asn Arg Glu Arg Ala
            180                 185                 190
Arg Lys Tyr Ile Pro Thr Val Pro Pro Glu Val Leu Thr Arg Phe Asp
        195                 200                 205
Arg Asp
    210
```

<210> 31308
<211> 78
<212> PRT
<213> A.fumigatus

<400> 31308

```
Pro Lys Gly Lys Lys Ala Thr Lys Lys Cys Pro Thr Gly Lys Ser Leu
1               5                   10                  15
Asp Cys Gln Thr Gly Asn Ser Ser Phe Leu Pro Leu Phe Phe Phe Ser
            20                  25                  30
Phe Ile Ser Phe Ser Ser Ile Ser Arg Pro Ser Ser Ile Ile Ser Asn
        35                  40                  45
Ile Leu Pro Leu Pro Phe Thr Leu Phe Val Pro Phe Ser Leu Ser Phe
    50                  55                  60
Phe Val Phe Pro Leu Met Thr Gln Val Phe Ala Cys Cys Val
65                  70                  75
```

<210> 31309
<211> 77
<212> PRT
<213> A.fumigatus

<400> 31309

```
Arg Arg Ser Ile Thr Ala Lys His Leu Gln Tyr Leu Leu Ser Leu Arg
1               5                   10                  15
Glu Lys Glu Thr Pro Asp Leu Asn Asp Asn Gly Lys Glu Ala Val Ser
            20                  25                  30
Gln Ile Gln Gln Lys Val Arg Ala Glu Asn Leu Ser Lys Asp Gly Asp
        35                  40                  45
Arg Ile Leu Gln Trp Arg Lys Asn Pro Thr Glu Ile Ala Leu Gly Asp
    50                  55                  60
```

```
Asn Asp Arg Gly Thr Asp Gln Ala Ser Gly Cys Thr Thr
65                  70                  75

<210> 31310
<211> 128
<212> PRT
<213> A.fumigatus

<400> 31310
Thr Gln Val Asp Ser Ser Lys Leu Asp Ser Phe Lys Met Glu Tyr His
1               5                  10                  15
Gly Asp Gly Asn Gly Ser Gly His Pro Ser Gln Ser Gln Glu Ser Ala
            20                  25                  30
Tyr Pro Asp Ile Asp Glu Thr Leu Gln Tyr Pro Trp Gln Gly Ser Gln
        35                  40                  45
Pro Ala Val Ala Gly Glu Ser Ser Leu His Ser Val Ile Asp Pro Arg
    50                  55                  60
Leu Tyr Lys Asp Leu Phe Ser Arg Ser Ala Ser Gly Gln Gln Ala Met
65                  70                  75                  80
Glu Tyr Gly Asp Glu Glu Asp Ala Gln Glu Tyr Ser Gln Leu Asp Gly
                85                  90                  95
Ser Ala Glu Asp Ser Thr Tyr Glu Phe Ser Ala Glu Glu Ser Ser Thr
            100                 105                 110
Ser Val Cys Ser Ser Glu Ile Thr Leu Pro Leu Ile Thr Asp Val Phe
        115                 120                 125

<210> 31311
<211> 310
<212> PRT
<213> A.fumigatus

<400> 31311
Ser Leu Met Phe Ser Arg Glu Glu Glu Pro Ser Asp Val Glu Glu Asn
1               5                  10                  15
Ala Ala Asp Glu Gly Asp Asp Asp Ser Val Gly Arg Arg Arg Arg Arg
            20                  25                  30
Arg Arg Gly Thr Gly Pro Phe Ser Gly Arg Trp Gly Ala Arg Gly Gly
        35                  40                  45
Lys Gly Ile Lys Arg Gly Pro Arg Lys Pro Leu Glu Pro Ser Ala Glu
    50                  55                  60
Phe Lys Met Leu His Ser Asp Ala Thr Ser Ala Phe Ile Asp Gly Asp
65                  70                  75                  80
Tyr Glu Thr Ala Ile Asp Leu Val Lys Arg Ala Ile His Ile Asn Pro
                85                  90                  95
Glu Met Phe Ala Ala His Ser Leu Leu Ser Glu Ile Phe Leu Ala Gln
            100                 105                 110
Gly Gln Lys Asp Lys Ala Leu Thr Ala Leu Phe Ser Gly Ala His Thr
        115                 120                 125
Arg Pro Arg Asp Ala Ser Val Trp Phe Lys Val Ala Gln Met Ile Leu
    130                 135                 140
Asp Arg Ala Gly Asp Asp Arg Pro Ala Ala Leu Asn Asp Val Ile Tyr
145                 150                 155                 160
Cys Leu Ser Arg Val Ile Asp Ile Glu Pro Lys Asn Tyr Asn Ala Arg
                165                 170                 175
Phe Gln Arg Ala Ala Val Tyr Arg Glu Leu Gly His Asn Gly Arg Ala
            180                 185                 190
```

```
Val Thr Glu Tyr Glu Arg Ile Leu Lys Glu Val Pro His His Pro Arg
        195                 200                 205
Ala Leu Arg Asn Leu Ala Glu Ala Tyr Ile Asp Leu Asn Glu Val Thr
    210                 215                 220
Lys Ala Val Asp Gln Trp Thr Glu Ser Val Glu Tyr Tyr Lys Ser Phe
225                 230                 235                 240
Glu Pro Glu Asp Ala Pro Asp Phe Ser Trp Ser Asp Ala Asn Ile Tyr
                245                 250                 255
Ala Glu Leu Phe Ser Tyr Leu Gly Arg Tyr Glu Glu Gly Leu Lys Ala
            260                 265                 270
Leu Lys Ser Val Ser Arg Trp Leu Leu Gly Arg Arg Asp Asp Thr Met
        275                 280                 285
Trp Glu Asn Phe Asn Glu Asp Asp Arg Ala Trp Glu Phe Ser Pro Asp
    290                 295                 300
Gly Ala Arg Ser Ala Arg
305                 310
```

<210> 31312
<211> 303
<212> PRT
<213> A.fumigatus

<400> 31312

```
Gly Trp Thr Gly Ala Ala Pro Ser Ser Pro Val Val Lys Thr Gly Pro
1               5                   10                  15
Leu His Asn Pro His Phe Ile Gln Lys Ile Leu Asp Met Leu Pro Asp
            20                  25                  30
Val Asp Arg Asp Ile Tyr His Thr Val Glu Arg Ile Glu Gly Met Leu
        35                  40                  45
Thr Thr Ala Leu Glu Glu Asp Leu Asn Leu Asp Thr Ile Ser Ser Ser
    50                  55                  60
Thr Pro Thr Gly Thr Leu Ala Ala Glu Lys Glu Leu Thr Glu Val Ser
65                  70                  75                  80
Thr Ser Arg Glu Tyr Ser Ala Ile Ile Pro Arg Leu Asp Pro Ala Leu
                85                  90                  95
Arg Asp Pro Phe Pro Phe Tyr Phe Thr Leu Ser Ser Leu Ala Lys Val
            100                 105                 110
Leu His Thr Ser Thr Ile Ser Ala Asp Ala Phe Arg Gly Ala Leu Arg
        115                 120                 125
Ser Leu Gly Tyr Arg Ser Thr Arg Ser His Ala Lys Pro Asn Thr Ile
    130                 135                 140
Arg Thr Asp Ala Pro Trp Asp Val Ile Trp Glu Ile Met Arg Glu Trp
145                 150                 155                 160
Val Arg Gln Lys Ala Pro Val Lys Glu Gly Ala Ile Arg Pro Gly Thr
                165                 170                 175
Pro Gly Ala Ala Ile Met Ala Lys Ser Arg Glu Asn Ser Arg Lys Asp
            180                 185                 190
Lys Gly Glu Asp Ser Leu Asn Ile Leu Arg Glu Glu Leu Met Ser Ala
        195                 200                 205
Ala Glu Ser Gly Lys Asp Ile Ser Asp Leu Val Thr Lys Val Glu Ala
    210                 215                 220
Ala Ile Tyr Arg Phe Ser His Arg Tyr Pro Pro Arg Ile Gln Gly Ala
225                 230                 235                 240
Glu Leu Arg Gln Gln Thr Glu Gly Pro Gln Ser Pro Gln Thr Ala Pro
                245                 250                 255
Ala Val Lys Gln Asn Leu Asn Thr Leu Glu Val Val Phe Asp Glu Ala
```

```
            260                 265                 270
Leu Gly Arg Glu Ala Ser His Ser Lys Lys Arg Leu Val Arg Tyr Gln
        275                 280                 285
Ile Asn Pro Arg Ala Asn Trp Gly Pro Leu Asn Arg Ala Ser Gly
    290                 295                 300

<210> 31313
<211> 430
<212> PRT
<213> A.fumigatus

<400> 31313
Thr Thr Ala Arg Glu Asn Pro Gly Lys Phe Pro Ser Pro Leu Leu Asp
1               5                  10                  15
Ile Lys Tyr Arg Arg Arg Gln Leu Asp Leu Arg Arg Lys Gln Ile Lys
            20                  25                  30
Glu Trp Gln Glu Ser Glu Leu Leu Tyr Leu Gln Glu Glu Ile Glu Ala
        35                  40                  45
Met Lys Ala Gln Gly Leu Ala Ser Ser Asp Leu Ser Asp Tyr Met Gln
    50                  55                  60
Glu Arg Ala Arg His Ile Glu Arg Glu Ala Val Arg Gln Glu Lys Asp
65                  70                  75                  80
Ala Gln Phe Ser Leu Gly Asn Asn Phe Trp Lys Gln Asp Ser Arg Ile
                85                  90                  95
Ala Pro Leu Arg Gly Ala Leu Ala Thr Trp Gly Leu Thr Ile Asp Asp
            100                 105                 110
Ile Gly Val Ala Ser Phe His Gly Thr Ser Thr Val Ala Asn Asp Lys
        115                 120                 125
Asn Glu Ser Asp Val Ile Cys Gln Gln Met Lys His Leu Gly Arg Lys
    130                 135                 140
Lys Gly Asn Ala Val Leu Gly Ile Phe Gln Lys Tyr Leu Thr Gly His
145                 150                 155                 160
Pro Lys Gly Ala Ala Gly Ala Trp Met Phe Asn Gly Cys Leu Gln Val
                165                 170                 175
Leu Asp Ser Gly Leu Val Pro Gly Asn Arg Asn Ala Asp Asn Val Asp
            180                 185                 190
Lys Val Met Glu Lys Phe Asp Tyr Ile Val Tyr Pro Ser Arg Ser Ile
        195                 200                 205
Gln Thr Asp Gly Ile Lys Ala Phe Ser Val Thr Ser Phe Gly Phe Gly
    210                 215                 220
Gln Lys Gly Ala Gln Val Ile Gly Ile His Pro Lys Tyr Leu Tyr Ala
225                 230                 235                 240
Thr Leu Asp Arg Ser Gln Phe Glu Ala Tyr Lys Ala Lys Val Glu Ser
                245                 250                 255
Arg Gln Lys Lys Ala Tyr Arg Phe Phe His Asn Gly Leu Ile Asn Asn
            260                 265                 270
Ser Ile Phe Val Ala Lys Asn Lys Ala Pro Tyr Glu Asp Asn Ile Gln
        275                 280                 285
Ser Asn Val Phe Leu Asn Pro Asp Tyr Arg Val Ala Val Asp Lys Lys
    290                 295                 300
Thr Ser Glu Leu Lys Phe Pro Pro Leu Pro Pro Lys Ala Ser Asp Lys
305                 310                 315                 320
Asp Ala Glu Ser Thr Arg Gln Val Val Glu Ser Leu Ala Lys Ala His
                325                 330                 335
Ala Glu Asp Asn Ser Arg Ile Gly Val Asp Val Glu Asn Ile Asp Ala
            340                 345                 350
```

```
Val Asn Ile Glu Asn Glu Thr Phe Ile Glu Arg Asn Phe Thr Ala Ser
        355                 360                 365
Glu Gln Glu Tyr Cys Arg Lys Ala Ser Ser Pro Gln Ser Ser Phe Ala
    370                 375                 380
Gly Arg Trp Ser Ala Lys Glu Ala Val Phe Lys Ser Leu Gly Val Cys
385                 390                 395                 400
Ser Lys Gly Ala Gly Ala Pro Leu Lys Asp Ile Glu Ile Leu Ser Asp
                405                 410                 415
Thr Ser Gly Ala Pro Val Val Asn Val Ser Leu Leu Pro Phe
            420                 425                 430

<210> 31314
<211> 105
<212> PRT
<213> A.fumigatus

<400> 31314
Thr Glu Thr Leu His Ile Val Leu Thr Met Gln Ile Phe Val Lys Thr
1               5                   10                  15
Leu Thr Gly Lys Thr Ile Thr Leu Glu Val Glu Ser Ser Asp Thr Ile
            20                  25                  30
Asp Asn Val Lys Ser Lys Ile Gln Asp Lys Glu Gly Ile Pro Pro Asp
        35                  40                  45
Gln Gln Arg Leu Ile Phe Ala Gly Lys Gln Leu Glu Asp Gly Arg Thr
    50                  55                  60
Leu Ser Asp Tyr Asn Ile Gln Lys Glu Ser Thr Leu His Leu Val Leu
65                  70                  75                  80
Arg Leu Arg Gly Gly Met Gln Ile Cys Lys Leu Leu Cys Leu Leu Pro
                85                  90                  95
Asn Phe Ala Thr Leu Val Ala Thr Phe
            100                 105

<210> 31315
<211> 251
<212> PRT
<213> A.fumigatus

<400> 31315
Val Thr Leu Pro Ser Ala Gln Phe Cys His Pro Gly Gly His Ile Leu
1               5                   10                  15
Gly Ser Pro Ala Asp Ser Leu Ile Thr Val Val Lys Thr Leu Thr Gly
            20                  25                  30
Lys Thr Ile Thr Leu Glu Val Glu Ser Ser Asp Thr Ile Asp Asn Val
        35                  40                  45
Lys Ser Lys Ile Gln Asp Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg
    50                  55                  60
Leu Ile Phe Ala Gly Lys Gln Leu Glu Asp Gly Arg Thr Leu Ser Asp
65                  70                  75                  80
Tyr Asn Ile Gln Lys Glu Ser Thr Leu His Leu Val Leu Arg Leu Arg
                85                  90                  95
Gly Gly Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr
            100                 105                 110
Leu Glu Val Glu Ser Ser Asp Thr Ile Asp Asn Val Lys Ser Lys Ile
        115                 120                 125
Gln Asp Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala
    130                 135                 140
```

```
Gly Lys Gln Leu Glu Asp Gly Arg Thr Leu Ser Asp Tyr Asn Ile Gln
145                 150                 155                 160
Lys Glu Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Gly Met Gln
                165                 170                 175
Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu Val Glu
            180                 185                 190
Ser Ser Asp Thr Ile Asp Asn Val Lys Ser Lys Ile Gln Asp Lys Glu
        195                 200                 205
Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys Gln Leu
    210                 215                 220
Glu Asp Gly Arg Thr Pro Ser Asp Tyr Asn Ile Gln Lys Glu Ser Thr
225                 230                 235                 240
Leu His Leu Val Leu Arg Leu Arg Gly Gly Cys
                245                 250
```

<210> 31316
<211> 107
<212> PRT
<213> A.fumigatus

<400> 31316

```
Leu Thr Asp Leu His Ala Thr Thr Lys Thr Glu Asn Gln Val Gln Ser
1               5                   10                  15
Arg Phe Leu Leu Asp Val Ile Ile Gly Lys Ser Ala Ala Ile Leu Glu
            20                  25                  30
Leu Leu Ala Ser Glu Asn Gln Ala Leu Leu Val Arg Arg Asp Thr Leu
        35                  40                  45
Leu Ile Leu Asn Leu Arg Leu Asp Ile Val Asn Ser Val Ala Gly Leu
    50                  55                  60
Asp Leu Gln Gly Asp Gly Leu Ala Arg Glu Ser Leu Asp Glu Asn Leu
65                  70                  75                  80
His Gly Glu Asp Asp Val Lys Ser Phe Ser Leu Phe Val Glu Arg Met
                85                  90                  95
Met Thr Glu Tyr Ser Ala Val Gly Gly Ser Tyr
            100                 105
```

<210> 31317
<211> 140
<212> PRT
<213> A.fumigatus

<400> 31317

```
Lys Gln Thr Phe Ser His Leu Ala Ser Thr Thr Gln Thr Gln His Gln
1               5                   10                  15
Val Glu Arg Ala Leu Leu Leu Asn Ile Val Ile Gly Gly Gly Pro Pro
            20                  25                  30
Ile Phe Gln Leu Leu Thr Ser Glu Asp Glu Thr Leu Leu Val Arg Arg
        35                  40                  45
Asp Ala Leu Leu Val Leu Asp Leu Ala Leu His Val Val Asn Arg Val
    50                  55                  60
Gly Gly Leu His Leu Gln Gly Asn Gly Leu Ser Gly Glu Ser Leu Asp
65                  70                  75                  80
Glu Asp Leu His Ala Thr Thr Gln Thr Glu Asp Gln Met Gln Cys Gly
                85                  90                  95
Phe Leu Leu Asp Ile Val Ile Arg Gln Gly Thr Ala Ile Phe Lys Leu
            100                 105                 110
```

```
Leu Ser Ser Lys Asp Glu Thr Leu Leu Ile Arg Arg Asp Thr Leu Leu
        115                 120                 125
Ile Leu Asp Leu Ala Leu Asp Ile Val Asp Gly Val
    130                 135                 140

<210> 31318
<211> 230
<212> PRT
<213> A.fumigatus

<400> 31318
Ala Pro Phe Pro Gln Arg Val Val Ile Thr Arg Ser Gly Phe Pro Lys
1               5                   10                  15
Phe Tyr Ser Asn Gly Leu Tyr Phe Glu Leu Ala Thr Thr Thr Glu Gly
            20                  25                  30
Phe Ile Asp Lys Trp Leu Trp Lys Leu Phe Arg Arg Phe Leu Thr Tyr
        35                  40                  45
Val Phe Leu Lys Phe Ser Glu Arg Ser Ile Cys Leu Thr Trp His Arg
    50                  55                  60
Phe Pro Met Pro Thr Ile Cys Leu Leu Asn Gly His Ala Phe Ala Gly
65                  70                  75                  80
Gly Leu Met Leu Ala Met Tyr His Asp Tyr Arg Ile Gln Asn Pro Thr
                85                  90                  95
Lys Gly Phe Leu Cys Ile Asn Glu Leu Glu Phe Gly Val Pro Leu Gln
            100                 105                 110
Ser Pro Met Met Ser Ile Phe Arg Glu Lys Leu Ser Pro Ser Ala Phe
        115                 120                 125
Arg Asp Leu Ile Leu Glu Ala Arg Arg Phe Ala Gly Pro Gln Ser Val
    130                 135                 140
Ala Val Gly Leu Val Asp Gly Val Gly Gly Leu Glu Glu Thr Leu Gln
145                 150                 155                 160
Leu Ile Arg Glu Arg Gly Leu Gln Thr Lys Ala Ala Thr Gly Ile Tyr
                165                 170                 175
Gly Thr Met Lys Glu Glu Met Tyr Arg His Thr Leu Asp Ile Leu Asp
            180                 185                 190
Asn His Ala Gly Asn Leu Ala Trp Arg Glu Gln Val Glu Glu Lys Lys
        195                 200                 205
Gly Thr Arg Glu Glu Ala Ala Leu Arg Ala Val Glu Ala Phe Glu Lys
    210                 215                 220
Gln Arg Asn Ala Lys Leu
225                 230

<210> 31319
<211> 116
<212> PRT
<213> A.fumigatus

<400> 31319
Ser Pro Thr His Phe Ser Ala Ser Ile Val Arg Leu Leu Leu Thr Ser
1               5                   10                  15
Phe Ile Gln Ala Pro His Pro Pro Arg Met Met Ile Leu Ser Ala Phe
            20                  25                  30
Ile Leu Leu Leu Thr Leu Val Thr Ala Leu Ala Pro Ala Tyr Asp Phe
        35                  40                  45
Ile Ile Val Gly Gly Gly Val Ser Gly Leu Val Val Ala Asn Arg Leu
    50                  55                  60
```

```
Ser Glu Asp Pro Asn Val Ser Val Leu Ile Ile Glu Ala Gly Pro Ser
65                  70                  75                  80
Val Leu Asp Asn Glu Asn Val Thr Asp Val Asp Ala Tyr Ser Arg Ala
                85                  90                  95
Phe Gly Thr Glu Ile Asp Trp Gln Phe Ile Ser Glu Ser Gln Leu Phe
            100                 105                 110
Gly Gly Glu Pro
        115

<210> 31320
<211> 237
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (212)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31320
Ile Leu Arg Ala Gly Arg Ala Leu Gly Gly Gly Ser Ala Ile Asn Gly
1               5                   10                  15
Glu Ser Ser Pro Ser Gly Tyr Gly Tyr Glu Tyr Ala Glu Glu Leu Arg
            20                  25                  30
Leu Arg Leu Gly Met Ala Tyr Val Arg Ala Glu Asp Val Gln Leu Asp
        35                  40                  45
Ala Trp Gln Ser Ile Gly Asn Glu Arg Trp Asn Trp Thr Ser Leu Phe
    50                  55                  60
Pro Tyr Tyr Leu Lys Ser Glu Asn Leu Thr Leu Pro Thr Ala Val Gln
65                  70                  75                  80
Thr Asp Ala Gly Ala Thr Tyr Asp Ala Phe Ala His Gly Ser Arg Gly
                85                  90                  95
Pro Leu Lys Val Ala Phe Pro Arg Met Gln Ser Gly Asp Asn Asp Leu
            100                 105                 110
Thr Pro Ala Val Asn Gln Thr Leu Gln Ala Ala Gly Ile Pro Trp Asn
        115                 120                 125
Val Asp Val Asn Ala Gly Arg Met Arg Gly Phe Ser Ile Tyr Pro Trp
    130                 135                 140
Thr Ile Asp Glu Glu Ala Tyr Ile Arg Tyr Asp Ala Ala Arg Ala Tyr
145                 150                 155                 160
Phe Trp Pro Phe Gln Ser Arg Ser Asn Leu His Ala Trp Leu Asn Thr
                165                 170                 175
Arg Val Asn Arg Ile Val Trp Arg Asp Val Pro Gly Gly Glu Asn Thr
            180                 185                 190
Arg Ala Ser Gly Val Asp Val Thr Ser Gln His Gly Thr Val Ser Val
        195                 200                 205
Val Met Ser Xaa Arg Glu Val Ile Leu Ser Ala Gly Ala Leu Lys Ser
    210                 215                 220
Pro Ala Ile Leu Glu Leu Ser Gly Ile Gly Asn Pro Arg
225                 230                 235

<210> 31321
<211> 282
<212> PRT
<213> A.fumigatus
```

<220>
<221> UNSURE
<222> (202),(221)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31321
Val Ala Ser Arg Ser Tyr Ile Arg Asp Lys Arg Ala Gly Ala Glu Ala
1 5 10 15
Leu Lys Leu Pro Tyr Ser Ile Leu Asn Gln His Asn Ile Pro Val His
20 25 30
Val Ser Leu Pro Gly Val Gly Glu Asn Leu Gln Asp Gln Met Asn Thr
35 40 45
Leu Met Thr Ala Ser Thr His Ser Pro Ile Thr Gly Gly Arg Thr Val
50 55 60
Thr Phe Ala Ser Ala Thr Asp Ile Phe Ser Gln Asp Ile Ser Ser Leu
65 70 75 80
Ala Asn Leu Thr His Thr Lys Leu Pro Ser Tyr Ala Ala Leu Val Ala
85 90 95
Asn Met Ser Asn Gly Ala Met Gln Pro Glu His Leu Arg Ala Val Phe
100 105 110
Gln Val Gln His Asp Leu Ile Phe Lys Asn Asn Ile Pro Ile Ala Glu
115 120 125
Ile Ile Phe Lys Pro Gly Gly Glu Lys Thr Val Asn Ala Gly Phe Trp
130 135 140
Gly Leu Leu Pro Phe Ala Arg Gly Asn Val His Ile Arg Ser Ser Asp
145 150 155 160
Pro Ala Ala Gln Pro Ala Ile Ser Pro Asn Tyr Gly Leu Leu Asp Trp
165 170 175
Asp Ile Gln Leu Gln Val Ala Ile Ala Lys Phe Ile Arg Arg Met Phe
180 185 190
Arg Ser Ala Pro Leu Glu Gly Met Ile Xaa Glu Glu Ser Arg Pro Gly
195 200 205
Leu Ser Ala Val Pro Gly Asp Ala Ala Asp Glu Val Xaa Gly Asn Trp
210 215 220
Leu Glu Asp Asn Cys Pro Trp Gly Lys Phe Leu Phe Phe Pro Arg Asp
225 230 235 240
Val Ser Asn Ser Ile Ala Ala Asn Ala Ser Asn Phe Pro Ala Ile Gly
245 250 255
Pro His Gly Pro Asp Ala Pro Ser Ser Arg Val Glu Ser Ser Thr Ile
260 265 270
Gly Cys Arg Cys Ser Gly Arg Pro Asn Phe
275 280

<210> 31322
<211> 129
<212> PRT
<213> A.fumigatus

<400> 31322
Leu Lys Ala Ser His Phe Ser Ala Ser Gln Thr Pro Pro Gln Leu Ser
1 5 10 15
Thr Gln Pro Leu Leu Ala Ser Leu Ser Ser Pro Pro Pro Ala Pro Ser
20 25 30
Thr Gln Gly Tyr Pro His Gly Tyr Pro Arg Cys Pro Ala Tyr Ala Gly
35 40 45
Thr Ser Pro Pro Ser Ser Cys His Arg Ser Pro Ser Pro Pro Trp Ser

```
    50                  55                  60
Ala Ile Arg Ala Pro Glu Ser Ile Ala Ala Ser Pro Gln Ala Arg Leu
65                  70                  75                  80
Arg Arg Pro Pro Ile Pro Gln Gln Gln Thr Val Asp Pro Arg Thr Val
                85                  90                  95
Ser Pro Gln Glu Leu Asp Pro Gly Arg Gln Thr Gly Thr Ile Ser Pro
            100                 105                 110
Gly Arg Cys Ser Ser Trp Gly Ser Ala Gly Ala Pro Arg Thr Arg Ala
        115                 120                 125
Arg
```

<210> 31323
<211> 383
<212> PRT
<213> A.fumigatus

<400> 31323

```
His Leu Ser Cys Cys Gln Pro Leu Leu Val Ser Ala Phe Gly Val Glu
1               5                   10                  15
Tyr Trp Ser Leu Ile Arg Ser Ser Val Val Thr Pro Leu Leu Leu Glu
            20                  25                  30
Thr Asn Ser Pro Leu Arg Thr Val Thr Arg Phe Val Ser Glu Ser Ser
        35                  40                  45
Leu Trp Cys Pro Ser Arg His Pro Ile Val Phe Arg Ile Tyr Cys Leu
    50                  55                  60
Ser Phe Ala Ser Leu Gly Cys Cys Val Pro Leu Gln Leu Leu Gln His
65                  70                  75                  80
Phe Gln Thr Gly Leu Leu Glu Asp Thr Arg Tyr Ser Gly Lys Pro Lys
                85                  90                  95
Ser Arg Ile Ser Val Ser Leu Val Ala Ala Gln Leu Pro Leu Leu Ser
            100                 105                 110
Ser Leu Ser Pro Phe Leu Ile Pro Ser Ile Cys Gln Cys Trp Phe Asn
        115                 120                 125
Pro Cys Leu Ser Ala Lys Leu Leu Arg Thr Val Cys Ser Tyr Pro Phe
    130                 135                 140
Phe Leu Val Leu Thr Ser Leu Pro Ser Gln Phe Asp Pro Asp Phe Gln
145                 150                 155                 160
Thr Pro Leu Ile Leu Asp Glu Ser Leu Asp Phe Ser Asp Pro Glu Glu
                165                 170                 175
Ser Arg Phe Ala Gly Ala Phe Ser Asp Gly Leu Leu Ala Lys Ser Glu
            180                 185                 190
Pro Phe Leu Ser Met Ser Thr Phe Gln Lys Pro Pro Ser Ala Ala Leu
        195                 200                 205
Leu Gly Lys Phe Val Pro Ser Phe Phe Leu Glu His Cys Cys Ser Phe
    210                 215                 220
Gly Lys Cys Arg Gln Thr Asp Arg Leu Thr Leu Ser Asp Tyr Asp Ser
225                 230                 235                 240
Ala Arg Ser Leu His Asn Gly Ala Ser Tyr Ser Thr Tyr Gly Gln Thr
                245                 250                 255
Pro Tyr Val Thr Ala Thr Ser Leu Val Pro Ser Pro Met Ala Asp Gln
            260                 265                 270
Ala Ser Gln Ile Ser Asp Cys Gly Pro Tyr Leu Pro Asn Gln Glu Tyr
        275                 280                 285
Ala Ser Ser Tyr Glu Glu Ser Arg Ser Pro Met Leu Gly Ala Glu Ser
    290                 295                 300
```

```
Arg Gln Leu Pro Glu Val Val Ser Tyr Asn Pro Gln Arg Gly Ser Glu
305                 310                 315                 320
Gly Thr Arg Val Phe Val Gln Ile Gln Cys Pro His Asp Leu His Ser
                325                 330                 335
Ser Pro Tyr Ala Thr Leu Tyr Leu Ala Phe Gly Ser Lys Lys Cys Glu
            340                 345                 350
Cys Leu Pro His Phe Leu Gly Leu Gln Gly Ser Ser Phe Gln Asn Ala
        355                 360                 365
Leu Ser Val Asp Thr Pro Ala Phe Leu Ala Thr Gly Ile Pro Val
    370                 375                 380
```

<210> 31324
<211> 204
<212> PRT
<213> A.fumigatus

<400> 31324

```
Pro Pro Asp Gln Trp Pro Glu Asp Pro Gln Ala Leu His Ala Leu Asp
1               5                   10                  15
His Pro Trp Arg His Leu Pro Glu Pro Pro Trp Cys Lys Ser Val Cys
            20                  25                  30
Pro Cys Ser Tyr Arg Arg Lys Leu Ile Pro Arg Gln Leu Ala Pro Leu
        35                  40                  45
Cys Gln Tyr Ser Ala Gln Asp Gly His Met Thr Asp Tyr His Ile Ala
    50                  55                  60
His Leu Gly Gly Ile Ala Gln Arg Gly Pro Gly Leu Met Leu Ile Glu
65                  70                  75                  80
Ala Thr Ala Val Gln Pro Glu Gly Arg Ile Thr Pro Gln Asp Val Gly
                85                  90                  95
Leu Trp Lys Asp Ser Gln Ile Ala Pro Met Arg Arg Val Ile Asp Phe
            100                 105                 110
Val His Ser Gln Gly Gln Lys Ile Gly Val Gln Leu Ala His Ala Gly
        115                 120                 125
Arg Lys Ala Thr Thr Val Ala Pro Trp Ile Ser Phe Ser Ala Ile Ala
    130                 135                 140
Thr Glu Lys Val Gly Gly Trp Pro Asp Arg Val Lys Gly Pro Gly Asp
145                 150                 155                 160
Ile Pro Phe Ala Glu Pro Phe Ala Lys Pro Lys Ala Met Thr Leu Asp
                165                 170                 175
Glu Ile Glu Gln Phe Lys Lys Asp Trp Val Ala Ala Thr Lys Arg Ala
            180                 185                 190
Ile Ala Ala Gly Ala Asp Phe Val Glu Ile His Asn
        195                 200
```

<210> 31325
<211> 91
<212> PRT
<213> A.fumigatus

<400> 31325

```
Arg Ser Pro His Arg Gly Val Ser Tyr Gln Pro Ile Asn Asn His Pro
1               5                   10                  15
Gln Ser Pro Thr Thr Lys Met Thr Val Ala Asp Ile Asp Val Pro Pro
            20                  25                  30
Ala Glu Gly Ile Pro Tyr Phe Thr Pro Ala Gln Asn Pro Pro Ala Gly
        35                  40                  45
```

```
Thr Ala Ala Asn Pro Gln Thr Asn Gly Gln Lys Ile Pro Lys Leu Phe
    50                  55                  60
Thr Pro Leu Thr Ile Arg Gly Val Thr Phe Gln Asn Arg Leu Gly Val
65                  70                  75                  80
Ser Pro Phe Ala Leu Ala His Ile Asp Glu Ser
                85                  90
```

<210> 31326
<211> 85
<212> PRT
<213> A.fumigatus

<400> 31326

```
Leu Phe Gly Tyr Ile Arg Tyr Ala Ile Gly Phe Ser Asp Leu Glu Val
1               5                   10                  15
Val Met Lys Arg Leu Val Asp Glu Gly Lys Tyr Ala Asp Met Thr Ile
            20                  25                  30
Ala Cys Leu Gly Arg Glu Ile Gln Arg Pro Arg Val Val Lys Glu Leu
        35                  40                  45
Thr Asn Pro Lys Ser Trp Arg Val Met His Phe Ser Arg Trp Thr Lys
    50                  55                  60
Val Arg Ile Leu Leu Pro Tyr Val Asn Tyr Lys Val Lys Ser Leu Cys
65                  70                  75                  80
Thr Leu Gln Lys Ser
                85
```

<210> 31327
<211> 95
<212> PRT
<213> A.fumigatus

<400> 31327

```
Glu Trp Phe Glu Thr His Cys Ile Trp Val Ile Glu Trp Pro Asp His
1               5                   10                  15
Leu Pro Asn Leu Asn Leu Ile Lys His Leu Trp Asn Leu Ser Lys Lys
            20                  25                  30
Lys Pro Leu Gln Leu Tyr Pro Glu Leu Phe Leu Gly Gly Arg Ser Lys
        35                  40                  45
Ile Asp Trp Thr Cys Phe Cys Asn Ala Ile Ile Glu Ala Trp Glu Ala
    50                  55                  60
Lys Pro Ile Pro Gln Val Ile Asn Gly Leu Ile Tyr Ser Met Pro His
65                  70                  75                  80
Arg Leu Arg Ala Asp Ser Gln Ala Arg Ala Trp Ser Thr Asn Tyr
                85                  90                  95
```

<210> 31328
<211> 85
<212> PRT
<213> A.fumigatus

<400> 31328

```
Tyr Thr Arg Ile Ile Ile Ile Asn Tyr Cys Met Thr Leu Gln Met Glu
1               5                   10                  15
Ala Pro Thr Arg Val Asn Leu Asn Asn Gly Arg Arg Ser Thr Thr Ala
            20                  25                  30
Val Arg Leu His Tyr Ile Glu Asp Asp Lys Lys Arg Asn Gln Ala Gly
```

```
        35                  40                  45
Thr Thr Ala Ile Gln Ser Gln Asn Ile Glu Gln Ile Val Ala Phe Ser
    50                  55                  60
Ile Lys Ile Leu Ile Tyr Arg Arg Leu Ser Glu Pro Glu Pro Asn Ile
65                  70                  75                  80
Val Ile Glu Ser Gly
                85
```

<210> 31329
<211> 84
<212> PRT
<213> A.fumigatus

<400> 31329

```
Val Glu Thr His Ser Leu His Gly Pro Phe Gln Pro Arg Gly Glu Asp
1               5                   10                  15
Ala Gln Leu Leu Met Thr Gln Asp Pro Phe Ile Ile Ser Gly Ser Lys
            20                  25                  30
Val Leu Glu Gly Met Gly Thr Tyr Leu Val Thr Ser Val Gly Pro His
        35                  40                  45
Ser Thr Tyr Gly Arg Ile Met Val Ser Leu Gly Thr Glu Ser Ala Pro
    50                  55                  60
Thr Pro Leu Gln Val Lys Leu Gly Lys Leu Ala Asn Trp Ile Gly Trp
65                  70                  75                  80
Phe Gly Leu Gly
```

<210> 31330
<211> 160
<212> PRT
<213> A.fumigatus

<400> 31330

```
Val Ser Ile Thr Thr His Thr Glu Val Gly Thr Tyr Arg Thr Gly Asp
1               5                   10                  15
Asn Ile His Thr Ala Leu Ser Ile Ala Ile Ser Cys Gly Ile Lys Thr
            20                  25                  30
Glu Asp Gly Ile Ala Met Glu Gly Pro Asp Leu Arg Gln Leu Thr Glu
        35                  40                  45
Ala Gln Leu Lys Thr Ile Ile Pro Arg Leu Gln Val Leu Ala Arg Ser
    50                  55                  60
Ser Pro Ser Asp Lys Gln Leu Leu Val Glu His Leu Lys Gln Leu Gly
65                  70                  75                  80
Glu Thr Val Ala Val Thr Gly Asp Gly Thr Asn Asp Gly Pro Ala Leu
                85                  90                  95
Lys Ala Ala Asp Val Gly Phe Ser Met Gly Leu Ser Gly Thr Glu Val
            100                 105                 110
Ala Arg Glu Ala Ser Ser Ile Ile Leu Leu Asp Asp Asn Phe Arg Ser
        115                 120                 125
Ile Val Thr Ala Ile Ala Trp Gly Arg Cys Val Asn Asp Ala Val Ala
    130                 135                 140
Lys Phe Leu Gln Val Cys Cys Val Cys Phe Ser Arg Arg Pro Cys Gly
145                 150                 155                 160
```

<210> 31331
<211> 345

<212> PRT
<213> A.fumigatus

<400> 31331
Cys Leu Thr Glu Gly Leu Pro Leu Ala Val Thr Leu Ala Leu Ala Phe
1 5 10 15
Ala Thr Ala Arg Met Leu Lys Glu Asn Asn Leu Val Arg Gln Leu Arg
20 25 30
Ala Cys Glu Thr Met Gly Asn Ala Thr Val Ile Cys Ser Asp Lys Thr
35 40 45
Gly Thr Leu Thr Gln Asn Arg Met Thr Val Val Ala Gly Phe Leu Ser
50 55 60
Pro Ser Glu Ser Phe Gly Gln Leu Pro Leu Glu Thr Ala Ser Gln Pro
65 70 75 80
Gln His Asp Asp Ile Ser Gly Val Thr Gln Arg Tyr Pro Ala Ala Leu
85 90 95
Lys Ala Leu Leu Val Lys Ser Leu Val Val Asn Ser Thr Ala Phe Glu
100 105 110
Glu Leu Arg Glu Asn Glu Thr Val Leu Val Gly Asn Asn Thr Glu Ile
115 120 125
Ala Leu Leu Arg Phe Ala Gln Thr Ala Leu Asp Val Arg Asp Val Ser
130 135 140
Thr Glu Arg Glu Arg Thr Asp Ile Glu Gln Val Tyr Pro Phe Asp Ser
145 150 155 160
Ala Arg Lys Ala Met Ala Val Val Tyr Arg Leu Gly Thr Gly His Arg
165 170 175
Leu Leu Val Lys Gly Ala Ala Glu Val Val Leu Gly Ala Cys Thr Glu
180 185 190
Ser Thr Leu Pro Gly Leu Ser Asp Lys Thr Ser Leu Ala Arg Ala Gln
195 200 205
Met Ser Cys Glu Asp Arg Arg Thr Ile His Asp Gln Ile Asp Ile Phe
210 215 220
Ser Arg Ala Ser Leu Arg Thr Ile Ala Ile Ala Tyr Arg Glu Leu Pro
225 230 235 240
Ala Trp Asn Ser Glu Gln Ala Gly Asp Asn Ala Lys Val Ser Pro Asp
245 250 255
Phe Asp Ala Leu Phe Asn Asn Leu Thr Trp Ile Gly Ala Phe Gly Ile
260 265 270
His Asp Pro Leu Arg Pro Glu Val Pro Glu Ala Ile Arg Thr Cys His
275 280 285
Thr Ala Gly Val Gln Val Lys Met Val Thr Gly Glu Cys Pro Leu Pro
290 295 300
His Thr Arg Arg Ser Glu Leu Thr Ala Gln Val Thr Thr Ser Thr Arg
305 310 315 320
Arg Tyr Pro Ser Pro Ser Pro Ala Gly Ser Arg Arg Arg Thr Ala Ser
325 330 335
Gln Trp Lys Asp Pro Thr Phe Gly Ser
340 345

<210> 31332
<211> 157
<212> PRT
<213> A.fumigatus

<400> 31332
Arg Gln Leu Ser Ile Asp Cys His Gly His Arg Leu Gly Pro Val Cys

```
1               5                   10                  15
Gln Arg Cys Cys Arg Gln Val Ser Ala Gly Val Leu Arg Leu Leu Leu
            20                  25                  30
Ser Pro Ser Met Trp Leu Thr Gln Pro Val Ser Asn His Gly Gln His
        35                  40                  45
His Cys Arg Leu Phe Asp Cys Arg Asp Gly His Leu Gln Gln Leu Gln
    50                  55                  60
Arg Lys Cys Leu Gln Gly Gly Pro Val Ala Met Ala Glu Ser Asn Asn
65                  70                  75                  80
Gly His Leu Cys Arg Ser Gly Leu Val Arg Pro Pro Asp Cys Lys Pro
                85                  90                  95
Pro Trp His Glu Ser Thr Asn Ile Pro Arg Gly Pro Arg Ala Thr Asp
            100                 105                 110
Pro Pro Thr Ala Asp Ile Leu Gln Arg Pro Pro Arg Pro Arg Ser Ala
        115                 120                 125
Pro Leu Phe Thr Val Thr Met Trp Lys Leu Met Leu Gly Gln Ser Ile
    130                 135                 140
Cys Leu His Thr Gly Leu Glu Gly Ser Ala Val Ala Gln
145                 150                 155
```

<210> 31333
<211> 165
<212> PRT
<213> A.fumigatus

<400> 31333

```
Arg Arg Val Asp Val Val Thr Cys Ala Val Ser Ser Asp Leu Arg Val
1               5                   10                  15
Cys Gly Asn Gly His Ser Pro Val Thr Ile Leu Thr Trp Thr Pro Ala
            20                  25                  30
Val Trp His Val Arg Met Ala Ser Gly Thr Ser Gly Leu Ser Gly Ser
        35                  40                  45
Trp Met Pro Asn Ala Pro Ile Gln Val Arg Leu Leu Asn Lys Ala Ser
    50                  55                  60
Lys Ser Gly Glu Thr Phe Ala Leu Ser Pro Ala Cys Ser Glu Phe Gln
65                  70                  75                  80
Ala Gly Ser Ser Arg Tyr Ala Ile Ala Ile Val Arg Asn Glu Ala Arg
                85                  90                  95
Glu Lys Ile Ser Ile Trp Ser Trp Ile Val Arg Leu Ser Ser His Asp
            100                 105                 110
Ile Cys Ala Leu Ala Asn Asp Val Leu Ser Asp Ser Pro Gly Ser Val
        115                 120                 125
Asp Ser Val Gln Ala Pro Arg Thr Thr Ser Ala Ala Pro Leu Thr Ser
    130                 135                 140
Ser Arg Cys Pro Val Pro Lys Arg Tyr Thr Thr Ala Ile Ala Phe Arg
145                 150                 155                 160
Ala Glu Ser Asn Gly
                165
```

<210> 31334
<211> 168
<212> PRT
<213> A.fumigatus

<400> 31334

```
Asp Ala Val Ser Ser Gly Ser Trp Pro Asn Asp Ser Leu Gly Leu Arg
```

```
1               5                   10                  15
Lys Pro Ala Thr Thr Val Ile Leu Phe Cys Val Arg Val Pro Val Leu
            20                  25                  30
Ser Glu His Ile Thr Val Ala Phe Pro Ile Val Ser Gln Ala Arg Ser
        35                  40                  45
Cys Arg Thr Arg Leu Phe Ser Leu Ser Ile Arg Ala Val Ala Asn Ala
    50                  55                  60
Arg Ala Arg Val Thr Ala Arg Gly Ser Pro Ser Val Arg His Gln Gln
65                  70                  75                  80
Ser Gly Ser Arg Arg Asp Gly Lys Arg Val Gln Thr Arg Asn Cys Asn
                85                  90                  95
His Asp His Cys His Arg Tyr Tyr Glu Asn Ile His Lys Leu Leu Ser
            100                 105                 110
Phe Tyr Ser Gly Arg Arg Ile Val Ile Trp Lys Leu Ser Gln Glu Ala
        115                 120                 125
Glu Glu Glu His Glu Glu Glu Glu Lys Ser Arg Pro Ala Leu Ala Val
    130                 135                 140
Ser Tyr Tyr Pro Ala Arg Ser Ser Leu Phe Lys Gly Tyr Leu Pro Gln
145                 150                 155                 160
Ser Lys Pro Ala Asp Pro Val Arg
                165
```

<210> 31335
<211> 153
<212> PRT
<213> A.fumigatus

```
<400> 31335
Asn Trp Leu Cys Gln Pro His Gly Arg Arg Glu Lys Gln Thr Gln His
1               5                   10                  15
Thr Cys Arg Asn Leu Ala Thr Ala Ser Leu Thr His Arg Pro Gln Ala
            20                  25                  30
Met Ala Val Thr Ile Asp Arg Lys Leu Ser Ser Arg Arg Ile Ile Glu
        35                  40                  45
Leu Ala Ser Arg Ala Thr Ser Val Pro Leu Arg Pro Ile Glu Asn Pro
    50                  55                  60
Thr Ser Ala Ala Leu Arg Ala Gly Pro Ser Leu Val Pro Ser Pro Val
65                  70                  75                  80
Thr Ala Thr Val Ser Pro Ser Cys Leu Arg Cys Ser Thr Arg Ser Cys
                85                  90                  95
Leu Ser Leu Gly Glu Glu Arg Ala Arg Thr Trp Ser Arg Gly Met Ile
            100                 105                 110
Val Phe Asn Cys Ala Ser Val Ser Cys Arg Arg Ser Gly Pro Ser Ile
        115                 120                 125
Ala Met Pro Ser Ser Val Leu Ile Pro Gln Glu Met Ala Met Asp Asn
    130                 135                 140
Ala Val Trp Met Leu Ser Pro Val Arg
145                 150
```

<210> 31336
<211> 75
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE

<222> (7),(12),(24),(40),(41),(49),(51),(58),(59),(75)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31336
Pro Asp Tyr Pro Lys Arg Xaa Glu Val Val Gln Xaa Ala Pro Lys Ala
1 5 10 15
Ser Ser Phe Pro Lys Glu Pro Xaa Asp Arg Val Phe Pro Tyr Pro Ala
20 25 30
Glu Leu Ser Ser Cys Val Ser Xaa Xaa Asp Pro Pro Glu Thr Phe Asn
35 40 45
Xaa Asn Xaa Pro Ser Ser Thr Gln Cys Xaa Xaa Ser His His Pro Pro
50 55 60
Ser Pro Leu Met Ser Thr Pro Ser Pro Arg Xaa
65 70 75

<210> 31337
<211> 271
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31337
Pro Glu Xaa Gln Cys Arg Thr Ala Ser Ser Arg Arg Asn Ala Pro Lys
1 5 10 15
Ile Pro Glu Pro Tyr Arg Ser Gln Thr Asn Asn Val Glu Thr Val Tyr
20 25 30
Thr Leu Asp Leu Ile Ser Thr Asp Pro Pro Ser Arg Leu His Ala Thr
35 40 45
Pro Pro Pro Leu Asp Arg Pro Val Glu Pro His Arg Thr Asn Ala Thr
50 55 60
Leu Leu Thr Pro His Gly Ser Ser Leu Val Ala Tyr Pro Pro Gly Ser
65 70 75 80
Glu Ser Leu Ser Pro Ser Lys Thr Gly Arg Pro Arg Pro Thr Ala Thr
85 90 95
Thr Gly Thr Leu Leu Glu Lys Ala Val Ala His Leu Ile Ala Thr Asp
100 105 110
Ala Arg Leu Glu Pro Leu Ile Arg Arg His Pro Cys Pro Leu Phe Ser
115 120 125
Pro Glu Gly Leu Ala Glu Glu Ile Asp Pro Phe Arg Ser Leu Val Ser
130 135 140
Ser Ile Ile Gly Gln Gln Val Ser Gly Ala Ala Ala Arg Ser Ile Lys
145 150 155 160
Asp Lys Phe Val Ala Leu Phe Asn Lys Asp Asn Glu Gly Gln Asp Pro
165 170 175
Ala Lys Pro Pro Arg Phe Pro Thr Pro Glu Glu Val Val Gln Cys Asp
180 185 190
Leu Ala Thr Leu Arg Thr Ala Gly Leu Ser Gln Arg Lys Ala Glu Tyr
195 200 205
Ile His Gly Leu Ser Gln Lys Phe Ala Thr Gly Glu Leu Ser Ala Arg
210 215 220
Met Leu Leu Asn Ala Ser Asp Glu Glu Leu Val Glu Lys Leu Thr Ala
225 230 235 240

```
Val Arg Gly Leu Gly Arg Trp Ser Val Glu Met Phe Ala Cys Phe Ala
                245                 250                 255
Leu Lys Arg Ile Asp Val Phe Ser Thr Gly Asp Leu Gly Val Gln
            260                 265                 270

<210> 31338
<211> 79
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (27),(43),(44),(52),(54),(62),(79)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31338
Gln Ile Arg Ala Thr Gly Leu Ala Asn Thr Leu Cys Gly Glu Leu Thr
1               5                   10                  15
Arg Pro Asp Tyr Gly Ile Ala Arg Ser Thr Xaa Leu Leu Gly Leu Gly
            20                  25                  30
Val Leu Met Ser Gly Glu Gly Gly Trp Trp Xaa Xaa Glu His Cys Val
        35                  40                  45
Asp Glu Gly Xaa Leu Xaa Leu Asn Val Ser Gly Gly Ser Xaa Thr Glu
    50                  55                  60
Thr Gln Leu Glu Ser Ser Ala Gly Tyr Gly Lys Thr Arg Ser Xaa
65                  70                  75

<210> 31339
<211> 314
<212> PRT
<213> A.fumigatus

<400> 31339
Tyr Asn Met Val Met Leu Thr Phe Gly Arg Phe Leu Ser Arg Ser Tyr
1               5                   10                  15
Pro His Ser Arg Glu Gly Pro Thr Ile Leu Ser Phe Arg Gln Gln Leu
            20                  25                  30
Ile Met Glu Gly Thr Gly Leu Asp Asp Asp Gln Asp Arg Arg Thr Asn
        35                  40                  45
Gln Met Thr Gly Val His Asp Ser Pro Val Leu Gln Pro Ala Ser Met
    50                  55                  60
Glu Asp Met Asp Ala Phe Tyr Asp Thr Asp Glu Tyr Ala Asp Ser Ser
65                  70                  75                  80
Asn Arg Ser Tyr Ser Pro Pro Ala Ser Pro Pro Arg Leu Ser Arg Asn
                85                  90                  95
Pro Ser Phe Ser Tyr Gln Asp Asp Trp Glu Thr Phe Pro Pro Leu Asp
            100                 105                 110
Lys Leu Thr Val Phe Asp Leu Leu Asp Asn Phe Ser Leu Ser Gln Lys
        115                 120                 125
Leu Glu Lys Trp Gln Gln Ala Ile Asn Val Gln Arg Glu Lys Val Arg
    130                 135                 140
Lys Gln Arg Glu Lys Leu Lys Ser Thr Ser Met Asn Ala Lys Asp Arg
145                 150                 155                 160
Val Val Gly Glu Trp Lys Arg Arg Val Pro Thr Ala Asp Glu Gln Leu
                165                 170                 175
Ala Lys Tyr Arg Arg Arg Met Ser Asp Gly Val Lys Arg Leu Glu Lys
```

```
            180                 185                 190
Gln Trp Asn Ala Thr Ala Thr Val Thr Leu Arg Glu Lys Val Ser Phe
        195                 200                 205
Ile Ala Gly Val Leu Asn Ile Phe Val Ser Gly Tyr Leu Ile Gly Ala
    210                 215                 220
Tyr Pro Glu Tyr Phe Tyr Ile Trp Phe Ser Val Gln Leu Ala Tyr Phe
225                 230                 235                 240
Met Pro Ile Arg Tyr Tyr Gly Tyr His Lys Lys Gly Tyr His Tyr Phe
                245                 250                 255
Leu Ala Asp Leu Cys Tyr Phe Val Asn Met Leu Cys Met Leu Ser Ile
            260                 265                 270
Trp Val Phe Pro Arg Ser Lys Arg Leu Phe Ile Ser Thr Phe Cys Leu
        275                 280                 285
Thr Phe Gly Asn Asn Ala Val Ala Ile Ala Met Trp Arg Asn Ser Met
    290                 295                 300
Val Phe His Ser Met Asp Lys Val Val Arg
305                 310
```

<210> 31340
<211> 268
<212> PRT
<213> A.fumigatus

<400> 31340

```
Val Pro Leu Arg Asn Phe Pro Ala Lys Asp His Ser Leu Thr Cys Leu
1               5                   10                  15
Met Arg Ser Leu Phe Ile His Ile Met Pro Pro Val Thr Leu His Cys
            20                  25                  30
Leu Val His Leu Thr Pro Ala Glu Val Leu Arg Glu Arg Phe Pro Ala
        35                  40                  45
Val Tyr Asp Ile Lys Phe Ser Lys Pro Gly Ser Ser Asn His Tyr Ser
    50                  55                  60
Leu Leu Ser Met Met Leu Trp Ala Thr Val Pro Tyr Met Phe Trp Gln
65                  70                  75                  80
Leu Thr Tyr His Phe Phe Ile Thr Val Arg Arg Ala Glu Lys Ile Ala
                85                  90                  95
Ala Gly Arg Pro Thr Ser Phe Thr Trp Leu Arg Lys Ser Tyr Ala Lys
            100                 105                 110
Thr Trp Ile Gly Lys Phe Val Ile Ser Leu Pro Glu Ser Leu Gln Ser
        115                 120                 125
Pro Ala Phe Met Met Ile Gln Tyr Ile Tyr Ala Leu Leu Thr Met Ile
    130                 135                 140
Pro Cys Pro Leu Trp Phe Arg Phe Arg Trp Ala Ser Gly Val Phe Leu
145                 150                 155                 160
Thr Ala Leu Phe Val Leu Ser Ile His Asn Gly Ala Thr Tyr Tyr Ile
                165                 170                 175
Asp Ile Phe Gly Lys Arg Phe Gln Lys Glu Leu Glu Glu Leu Lys Lys
            180                 185                 190
Asp Val Ala Arg Trp Gln Gly Ser Pro Ala Gly Thr Thr Ser Ser Thr
        195                 200                 205
Leu Pro Ile Leu Asn Asn Ala Ser Ser Ala Gly Ala Gly Ile Leu Glu
    210                 215                 220
Asp Ser Ala Ser Val His Lys Asp Ser Asp Lys Ser Ser Leu Asp Lys
225                 230                 235                 240
Ile Pro Pro Leu Asp Ser Ser Ala Ala Ser Thr Ala Ile Asp Gly Ser
                245                 250                 255
```

```
Asn Leu Ala Ala Ala Ala Asn Thr Arg Glu Arg Lys
            260                 265

<210> 31341
<211> 82
<212> PRT
<213> A.fumigatus

<400> 31341
Ala Met His Asp Ile Thr Leu Asp Pro Leu Leu Leu Gly Asn Leu Thr
1               5                  10                  15
Gly Lys Thr Ala Val Leu Thr Gly Gly Ala Gly Gly Ile Gly Thr Ala
            20                  25                  30
Ile Ala Lys Leu Leu Leu Glu His Gly Ala Asn Val Val Val Ala Asp
        35                  40                  45
Leu Glu His Thr Arg Pro Ile Val Glu Thr Met Ile Val Asp Leu Pro
    50                  55                  60
Gly Ser Cys Lys Gly Arg Val Gln Phe Val Ala Thr Asn Ile Val Lys
65                  70                  75                  80
Trp Asp


<210> 31342
<211> 196
<212> PRT
<213> A.fumigatus

<400> 31342
Val Thr Ala Leu Phe Gln Ser Ala Lys Glu Arg Phe Gly Ser Ile Glu
1               5                  10                  15
Leu Val Ile Ala Asn Ala Gly Val Met Glu Arg Thr Pro Val Leu Asp
            20                  25                  30
Met Asp Gln Ile Asp Glu His Gly Asn Leu Glu Glu Ser His Glu Phe
        35                  40                  45
Cys Lys Val Ile Asp Ile Asn Val Lys Gly Thr Met Asn Cys Leu Arg
    50                  55                  60
His Ala Ile Phe Ser Met Lys Gly Asn Gln Pro Cys Tyr Pro Asp Gly
65                  70                  75                  80
Ser Arg Gly Ala Val Val Leu Val Ser Ser Ile Ser Gly Tyr Phe Gly
                85                  90                  95
Gly Thr Gly Val Ser Gly Tyr Ile Thr Ser Lys His Ala Val Thr Gly
            100                 105                 110
Met Leu Arg Gly Ser Gln Leu Val Ala Ser Gln Asp Asp Ile Arg Val
        115                 120                 125
Asn Ala Val Ala Pro Phe Val Thr Pro Thr Ala Met Ala Gly Gly Phe
    130                 135                 140
Ser Glu Ala Trp Gln Ala Lys Gly Leu Pro Ile Asn Thr Thr Glu Gly
145                 150                 155                 160
Val Ala Thr Val Val Leu Thr Leu Ala Val Asn Pro Ala Glu Lys Gly
                165                 170                 175
Ser Cys Tyr Ile Val Trp Arg Ser Ile Trp His Arg Asp Asn Gly Ala
            180                 185                 190
Leu Leu Asp Pro
        195

<210> 31343
```

<211> 102
<212> PRT
<213> A.fumigatus

<400> 31343
Lys Ala Cys Pro Ser Ile Pro Ala Val Arg Thr Ser Tyr Trp Glu Asp
1 5 10 15
Ser Leu Arg Gly Arg Trp Val Cys Tyr Cys Arg Thr Asp Ile Asn Ile
20 25 30
Thr Phe Leu Leu Tyr Asn Gly Asp Gln Leu Asp Gly Trp Ala Ala Ala
35 40 45
Glu Ala Leu Gly Asp Leu Asn Gln Ser Ala Leu Ala Arg Thr Tyr Arg
50 55 60
Leu His Gly Arg Asn Asp Val Ile Cys Glu Leu Leu Leu Glu Asn Arg
65 70 75 80
Thr Thr Ser Thr Val Gln Leu Lys Val Leu Arg Val Lys Arg Ile Ile
85 90 95
Thr Met Gly Ile Ser Arg
100

<210> 31344
<211> 107
<212> PRT
<213> A.fumigatus

<400> 31344
Ala Gly Ala Pro Ala Gly His Asp Gly Ser Val Asp Ala Thr Lys Tyr
1 5 10 15
Gly Pro Ile Ser Pro Gln Pro Pro Asp Asn Ser Arg Glu Ser Arg Gln
20 25 30
His Leu Phe Val Gly Ala Pro Ala Ala Asn Pro Lys Gln Ser Glu Phe
35 40 45
Asp Cys Leu Arg Leu Asn Ile Tyr Thr Pro Arg Val Val Ile Ser Ser
50 55 60
Glu Glu Lys Val Pro Val Leu Val Trp Ile His Gly Gly Gly Trp Ala
65 70 75 80
Ile Glu Asn Gly Asn Thr Asp Phe Cys Glu Ser Ile Ala Cys Ser Leu
85 90 95
Cys Tyr Arg Gln Phe Ser Thr Asn Gly Gly Arg
100 105

<210> 31345
<211> 143
<212> PRT
<213> A.fumigatus

<400> 31345
Gly Thr Arg His Phe Arg Val Pro Pro Pro Leu Ala Lys Asp Gly Lys
1 5 10 15
Val Tyr Cys Gly Val Gln Met Ile Arg Phe Gly His Gln Val Asn Gly
20 25 30
Thr Trp Val Leu Ser Ala Arg Asp Gln Gln Ile Leu Asn Gly Ala Leu
35 40 45
Ser Val Gly Val Phe Cys Ala Ala Ile Ile Thr Gly Phe Leu Ser Asp
50 55 60
Ala Tyr Gly Arg Lys Lys Ala Met Met Ile Gly Ser Ile Ile Cys Cys

```
65                  70                  75                  80
Ala Gly Val Met Val Gln Tyr Tyr Ala Thr Ser Ile Leu Met Leu Phe
                85                  90                  95
Gly Gly Lys Leu Val Ala Thr Leu Gly Phe Gly Ile Gly His Ser Val
            100                 105                 110
Ala Pro Val Phe Val Ser Glu Leu Ala Pro Ser Ser Leu Arg Gly Ile
        115                 120                 125
Cys Leu Ala Leu Ile Val Ser Thr Leu Leu Leu Thr Ala Phe Arg
    130                 135                 140
```

<210> 31346
<211> 390
<212> PRT
<213> A.fumigatus

<400> 31346

```
Leu Ser Ser Val Asn Asn Ala Ser Ser Met Thr Lys Pro Ser Ile Arg
1               5                   10                  15
Ile Pro Leu Thr Gly Pro Leu Pro Pro Pro Ile Ile Val Pro Pro Ser
            20                  25                  30
Ala Ser Thr Leu Ser Gly Ala Ile Asn Ala Val Leu Ser Phe Phe Thr
        35                  40                  45
Ala Pro Pro Ser Pro Tyr Leu Ser Gly Val Asp Val Gly Arg His Ser
    50                  55                  60
Gln Ala Val Leu Leu Thr Gly Ala Gly Ile Ser Val Ala Ser Gly Leu
65                  70                  75                  80
Ser Asp Tyr Arg Gly Glu Lys Gly Thr Tyr Val Thr Asn Lys Phe Tyr
                85                  90                  95
Arg Pro Ile Tyr Phe His Glu Phe Leu Ser Arg His Glu Ser Arg Lys
            100                 105                 110
Arg Tyr Trp Ala Arg Ser Phe Val Gly Trp Pro Gly Leu Leu Lys Ala
        115                 120                 125
Glu Pro Asn Ser Thr His Trp Ala Ile Arg Asp Leu Ala Ala Lys Gly
    130                 135                 140
Phe Val Ser Ser Val Val Thr Gln Asn Val Asp Ser Phe His Ser Ile
145                 150                 155                 160
Ala His Pro Glu Leu Pro Thr Ile Glu Leu His Gly His Leu Lys Ser
                165                 170                 175
Val Val Cys Thr Ser Cys Arg Asn Gln Phe Ser Arg Ala Glu Phe Gln
            180                 185                 190
Lys Ser Leu Glu Arg Leu Asn Pro Ala Trp Ala Glu Phe Leu Ala Arg
        195                 200                 205
Met Val Glu Ala Gly Ala Leu Asp Thr Asn Asn Pro Glu Glu Gln Arg
    210                 215                 220
Arg Lys Gly Phe Lys Leu Asn Pro Asp Gly Asp Val Asp Leu Ala Glu
225                 230                 235                 240
Ala Pro Tyr Ser Thr Phe Arg Tyr Pro Ser Cys Pro Thr Cys Leu Glu
                245                 250                 255
Asn Pro Pro Arg Leu Lys Asp Gly Thr Leu Ala Arg Val Glu Val Glu
            260                 265                 270
Lys Asp Gly Ala Trp Leu Pro Ser Ser Thr Ala Gly Ile Leu Lys Pro
        275                 280                 285
Ala Val Val Met Phe Gly Glu Asn Ile Asp Pro Gly Val Lys Thr Ala
    290                 295                 300
Ala Glu Glu Ala Ile Asp Asp Ala Gly Arg Leu Leu Ile Leu Gly Ser
305                 310                 315                 320
```

```
Ser Leu Ala Thr Tyr Ser Ala Trp Arg Leu Val Glu Arg Ala His Arg
                325                 330                 335
Arg Gly Met Pro Ile Ala Ile Ile Asn Leu Gly Gly Val Arg Asn Glu
            340                 345                 350
Ser Val Leu Phe Glu Thr Ser Ser Asp Val Ser Ser Ser His Val Arg
        355                 360                 365
Cys Ser Phe Pro Ser Glu Ala Ile Leu Pro Pro Val Val Ser Leu Leu
    370                 375                 380
Pro Lys Ser Ile Tyr Gly
385                 390

<210> 31347
<211> 122
<212> PRT
<213> A.fumigatus

<400> 31347
Ala Thr Ala Cys Asp Leu Pro Ser Gln Asp Arg Pro Arg Gly Gly Trp
1               5                   10                  15
Phe Lys Gln Val Ala Ile Arg Ser Pro Pro Ser Met Asp Tyr Arg Asn
            20                  25                  30
Ser Tyr Arg Thr Ala Glu Asp Ser Arg Ser Glu Tyr Asn Asn Pro Ala
        35                  40                  45
Ser Phe Ser Glu Ile Val Ser Thr Leu Val Ser Pro Lys Ser Phe Leu
    50                  55                  60
Phe Asn Asn Gln Arg Pro Lys Pro Ser Thr Gln Gln Thr Ser Ile Thr
65                  70                  75                  80
Thr Arg Gly Asn Ile Ser Ser Gln Thr Met Asp Lys Ser Gln Gln Pro
                85                  90                  95
Ser Ser Phe Gln Gln Leu Glu Lys Val Cys Glu Thr Ala Ser Ile Thr
            100                 105                 110
Ala Trp Lys Val Val Lys Gly Gly Arg Tyr
        115                 120

<210> 31348
<211> 126
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (113),(119),(122)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31348
Ser Gln Tyr Pro Gln Val Phe Lys Gly Arg Asn Arg Gln Thr Gly Glu
1               5                   10                  15
Leu Val Ala Leu Lys Glu Ile His Leu Asp Ser Glu Glu Gly Thr Pro
            20                  25                  30
Ser Thr Ala Ile Arg Glu Ile Ser Leu Met Lys Glu Leu Lys His Glu
        35                  40                  45
Ser Ile Val Ser Leu Tyr Asp Val Ile His Thr Glu Asn Lys Leu Met
    50                  55                  60
Leu Val Phe Glu Tyr Met Asp Lys Asp Leu Lys Lys Tyr Met Asp Thr
65                  70                  75                  80
Arg Gly Asp Arg Gly Gln Leu Asp His Ala Thr Ile Lys Ser Phe Met
```

```
                85                  90                  95
His Gln Leu Leu Lys Gly Ile Ala Phe Cys His Val Tyr Thr Pro Gly
            100                 105                 110
Xaa Cys Gln Tyr Ser Arg Xaa Asn Pro Xaa Ala Pro Pro Pro
        115                 120                 125

<210> 31349
<211> 67
<212> PRT
<213> A.fumigatus

<400> 31349
Gly Arg Arg Gln Val Ala Ser Ala Asn Leu Ala Thr Val Glu Thr Pro
1               5                   10                  15
Ser Val His Val Leu Ala Leu Asn Ala Lys Gly Gly Pro Leu Met Gly
            20                  25                  30
Gly Glu Val Ser Pro Thr Glu Ala Asp Ile Asp Gly Val Phe Leu Ile
        35                  40                  45
Tyr Asn Pro Cys His Pro Pro Val Val Arg Val Ile His Glu Gly Tyr
    50                  55                  60
His Pro Gly
65

<210> 31350
<211> 439
<212> PRT
<213> A.fumigatus

<400> 31350
Ser Ser Cys Arg Thr Ile Leu Ile Gly Asp Glu Glu Asp Pro Ala Glu
1               5                   10                  15
Phe Phe Ser Met Ile Phe Gly Gly Ser Ala Phe Val Asp Leu Ile Gly
            20                  25                  30
Glu Ile Ser Leu Met Lys Asp Leu Thr Ala Thr Met Asp Ile Thr Met
        35                  40                  45
Gln Glu Met Glu Glu Glu Glu Leu Ala Glu Ala Ala Glu Glu Lys Leu
    50                  55                  60
His Ile His Asp Glu Gly Ser Lys Ala Ala Ala Ala Thr Gly Glu Ala
65                  70                  75                  80
Ser His Ala Ala Gly Thr Ala Ala Pro Gly Pro Gly Pro Val Pro Ala
                85                  90                  95
Ala Ala Ala Ala Ala Glu Pro Ser Glu Lys Pro Ala Ser Thr Ser Gly
            100                 105                 110
Ser Ser Thr Pro Arg Arg Tyr Leu Gly Gln Gln Ala Ile Met Asp Lys
        115                 120                 125
Ser Glu Glu Glu Ala Arg Met Glu Ala Ala Gly Leu Ser Gln Glu Glu
    130                 135                 140
Lys Glu Leu Arg Lys Lys Glu Lys Lys Lys Gly Leu Ser Arg Glu Gln
145                 150                 155                 160
Gln Glu Arg Leu Ala Ala Tyr Glu Leu Glu Arg Lys Lys Ala Arg Glu
                165                 170                 175
Glu Arg Val Asn Thr Leu Ala Thr Lys Leu Val Asp Lys Leu Ser Val
            180                 185                 190
Trp Thr Glu Thr Asp Lys Gly Pro Asp Val Thr Arg Ala Phe Glu Glu
        195                 200                 205
Lys Ile Arg Leu Glu Val Glu Asn Leu Lys Met Glu Ser Phe Gly Leu
```

```
    210                 215                 220
Glu Ile Leu His Ala Ile Gly Ala Thr Tyr Thr Ser Lys Ala Thr Ser
225                 230                 235                 240
Phe Ile Lys Ser Gln Lys Phe Leu Gly Ile Ser Gly Phe Phe Ser Arg
                245                 250                 255
Leu Lys Asp Lys Gly Thr Leu Ala Lys Glu Thr Trp Thr Thr Ile Ser
            260                 265                 270
Thr Ala Ile Asp Ala Gln Met Thr Met Glu Glu Met Ala Lys Leu Glu
        275                 280                 285
Glu Lys Gly Gly Glu Asp Trp Thr Asp Glu Lys Lys Ala Glu Tyr Glu
    290                 295                 300
Lys Lys Val Thr Gly Lys Ile Leu Ala Ala Ala Trp Arg Gly Ser Lys
305                 310                 315                 320
Phe Glu Ile Gln Ser Val Leu Arg Asp Val Cys Asp Gln Val Leu Gly
                325                 330                 335
Asp Lys Arg Val Lys Leu Glu Lys Arg Leu Glu Arg Ala His Ala Leu
            340                 345                 350
Val Ile Ala Gly Asn Ile Tyr Ser Lys Val Ser Ser Ser Arg Ser Thr
        355                 360                 365
Val Thr Met Ser Gln Val Ala Lys Arg Asn Tyr Arg Gln Ser Val Ile
    370                 375                 380
Pro Arg Lys Lys Glu Thr Thr Trp Pro Leu Ser Ser Ser Trp Leu Arg
385                 390                 395                 400
Pro Cys Arg Arg Arg Ala Arg Thr Arg Arg Lys Arg Arg Arg Lys Ser
                405                 410                 415
Arg Arg Met Ser Ile Thr Thr Thr Lys Gln Pro Pro Arg Arg Tyr Leu
            420                 425                 430
Val Leu Phe Ile Ser Leu Pro
        435
```

<210> 31351
<211> 64
<212> PRT
<213> A.fumigatus

<400> 31351

```
Leu Gln Val Ser Met Val Ala Asp Thr Thr Tyr Tyr Asp Ala Leu Gly
1               5                   10                  15
Val Pro Pro Thr Ala Thr Glu Leu Glu Ile Lys Lys Ala Tyr Arg Lys
            20                  25                  30
Leu Ala Ile Val Thr His Pro Gly Ala Ile Thr Pro Met Pro Ala Arg
        35                  40                  45
Ile Leu Ala Ile Asp Ser Asp Phe Phe Pro Arg Gln Glu Pro Trp Arg
    50                  55                  60
```

<210> 31352
<211> 74
<212> PRT
<213> A.fumigatus

<400> 31352

```
Asp Cys Ala Cys Glu Ile Ser Ser Gly Val Tyr Thr Ser Ile Tyr Ala
1               5                   10                  15
Val Gln Tyr Ile Gln Ser Phe Asn Ser Ser Arg His Asp Gln Ile Gly
            20                  25                  30
Glu Ala Tyr Gln Val Leu Ser Asn Glu Glu Leu Arg Lys Arg Tyr Asp
```

```
        35                  40                  45
Lys Tyr Gly Lys Glu Glu Ser Val Pro Gly Gly Gly Phe Gly Lys Leu
    50                  55                  60
Leu Ser Cys Asp Arg Ala Val Glu Leu Tyr
65                  70
```

<210> 31353
<211> 217
<212> PRT
<213> A.fumigatus

<400> 31353

```
Pro Cys Ile Val Trp Thr Val Ser Asp Leu Gln Glu Phe Met Ile Ser
1               5                   10                  15
Thr Phe Pro Pro Glu Leu Ala Ser Cys Val Arg Glu Ala Ala Pro Ile
            20                  25                  30
Leu His Arg Cys Leu Val Arg Leu Gly Ser Phe Pro Tyr His Asn Asp
        35                  40                  45
Pro Gln Arg Thr Leu Leu Gln Asp Val Leu Arg Thr Gly Met Ile Ile
    50                  55                  60
Leu Leu Arg Leu Asn Gly Gly Lys Leu Leu Glu Gln Asp Asp Gly Lys
65                  70                  75                  80
Ala Ser Leu Ile Tyr Pro Asp Arg Leu Asn Ala Ala Gln Arg Thr Leu
                85                  90                  95
Leu Phe Gln Ser Met Ala Asp Met Gln Ala Ala Asn Thr Asn Thr Pro
            100                 105                 110
Arg Asn Ala Glu Asp Asp Phe His Leu Gln Arg Ala Leu Asp Leu Ile
        115                 120                 125
Thr Tyr Gly Asn Phe Ser Arg Asn Pro Leu Phe Pro Thr Ala Val Thr
    130                 135                 140
Lys Gly Pro Glu Tyr Pro Pro Ala Glu His Phe Pro Ser Ser Asn Ser
145                 150                 155                 160
Thr Leu Thr Asn Gly Tyr Ile Pro Val Lys Asp Phe Arg Pro Leu Leu
                165                 170                 175
Arg Leu Met Leu Leu Thr Gln Leu His Val Ala Gly Ile Asp Pro Asp
            180                 185                 190
Glu Phe Thr Ser Cys Leu Ala Gln Val Glu Thr Val Asn Ser Cys Leu
        195                 200                 205
Leu Pro Arg Ala Ala Thr Val Arg Glu
    210                 215
```

<210> 31354
<211> 422
<212> PRT
<213> A.fumigatus

<400> 31354

```
Pro Asn Leu Asn Gln Thr Gly Pro Ser Phe His Asp Leu Thr Ser Phe
1               5                   10                  15
Asn Asp Thr Phe Leu Arg Phe Ser Leu Asp Ala Arg Ser Met Asn Leu
            20                  25                  30
His Pro Leu His Ile Thr Gln Ser Ser Val Gly Glu Arg Cys Ala Ser
        35                  40                  45
Tyr Ile Thr Ala Ile Ser Asp Thr Leu Ala Gln Arg Ile Ile Ser Pro
    50                  55                  60
Leu Leu Ser Ser Lys Ala Ser Ser Ser Leu Arg Thr Leu Asn Leu Gln
```

```
65                  70                  75                  80
Pro Asp Trp Ala Leu Ala Pro Ala Asp Pro Pro Thr Ala Ala Leu Thr
                85                  90                  95
Val Phe Ala Cys Ala Ile Ala Leu Val Ala Met Ser Trp Arg Phe Ser
            100                 105                 110
Asp Leu Trp Arg Arg Ser Pro Tyr Pro Ala Ala Lys Thr Thr Pro Thr
        115                 120                 125
His Ile Ser Asp Gly Asp Tyr Thr Tyr Leu Thr Pro Glu Asp Ile Val
    130                 135                 140
Asp Arg Pro Ser Gly Tyr Ala Gly Ala Glu Glu Asp Glu Pro Asp Thr
145                 150                 155                 160
Leu Leu Leu Lys His Arg Lys Asn Thr Tyr Ala Leu His Phe Pro Ala
                165                 170                 175
Tyr Ala Ile Asn Asp Gly Ala Leu Ser Val Gly Glu Leu Arg Arg Arg
            180                 185                 190
Ala Ala Glu Val Thr Arg Thr Pro Asn Pro Ala Arg Ile Lys Leu Leu
        195                 200                 205
Tyr Lys Gly Lys Leu Leu Asp Asp Asp Ser Val Pro Cys Arg Ala Glu
    210                 215                 220
Gly Leu Lys Gln Gln Ser Glu Val Leu Cys Val Val Ser Glu Val Gln
225                 230                 235                 240
Pro Gly Glu Ser Thr Pro Ser Glu Gly Ser Glu Ala Glu Ala Gly Ala
                245                 250                 255
Glu Lys Ala Asp Glu Ala Pro Arg Leu Asp Glu Val Gln Ser Gly Gly
            260                 265                 270
Glu Arg Arg Lys Arg Asn Arg Asn Arg Asn Lys Lys Lys Lys Gly Lys
        275                 280                 285
Gly Arg Ile Lys Thr Ala Asp Ala Ala Ala Asp Asp Ala Asp Gly Leu
    290                 295                 300
Ala Pro Pro Ala Glu Pro Pro Arg Pro Ser Ser Ala Gly Gly Ser Ser
305                 310                 315                 320
Ser Leu Pro Ala Pro Ser Pro Asn Leu Lys Val Leu Arg Thr Pro Leu
                325                 330                 335
Glu Gln Ala Asn Ala Leu Ile Thr Tyr Leu Arg Thr Glu Leu Leu Pro
            340                 345                 350
Leu Cys Glu Ala Tyr Val Ala His Pro Pro Thr Asp Pro Lys Ala Arg
        355                 360                 365
Asp Phe Glu His Lys Lys Leu Ser Glu Thr Ile Leu Ala Gln Val Ile
    370                 375                 380
Leu Lys Ala Asp Gly Ile Glu Pro Asp Gly Asp Glu Ile Ala Arg Asn
385                 390                 395                 400
Ala Arg Lys Ala Leu Val Lys Glu Ala Gln Ala Ala Leu Asn Arg Leu
                405                 410                 415
Asp Gln Ala Ala Arg Glu
            420
```

<210> 31355
<211> 187
<212> PRT
<213> A.fumigatus

<400> 31355

```
Glu Leu Asn Tyr Val Pro Ser Met Gly Gln Ala Glu Phe Asn Ala Arg
1               5                   10                  15
Thr Asp Ala Ser Ala Glu Ile Ser Ala Phe Ala Val Arg Ala Glu Pro
            20                  25                  30
```

```
Asp Ser Glu Pro Val Ser Glu Lys Gln Gly Thr Ala Glu Thr Ala Ala
        35                  40                  45
Glu Thr Gly Ala Gly Gly Thr Glu Val Pro Ala Glu Arg Asn Gly Glu
    50                  55                  60
Asp Asp Val Glu Arg Thr Pro Lys Lys Ser Leu Ser Phe Lys Leu Ala
65                  70                  75                  80
Phe Ile Gly Leu Ala Ala Ser Met Phe Val Phe Gln Val Asp Ala Thr
                85                  90                  95
Ala Phe Gly Ile Ala Phe Pro Val Ser Asn Thr Thr Leu Ser His Arg
            100                 105                 110
Glu Leu Asn Cys Pro Arg Thr Asp Leu Ala Gly Arg Pro Ser Leu Arg
        115                 120                 125
Ile Ser Arg Ala Arg Val Trp Ser Pro Ser Gly Arg Thr Cys Pro Thr
    130                 135                 140
Pro Ser Val Ala Ser Ser Cys Asn Arg Cys Gly Pro Val Ser Pro Pro
145                 150                 155                 160
Arg Ser Val Gly Asn Arg Leu Tyr Thr Tyr Pro Trp Arg Cys Ser Ser
                165                 170                 175
Ser Asp Pro Ser Ser Leu Pro Trp Pro Arg Ile
            180                 185
```

<210> 31356
<211> 496
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (492)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31356

```
Thr Ile Ala Ala Asp Leu Lys Gly Glu Ser Leu Glu Ser Phe Trp Ala
1               5                   10                  15
Asn Leu Ser Tyr Thr Leu Cys Gly Leu Val Met Gln Pro Val Trp Ala
            20                  25                  30
Ser Ile Ser Thr Ala Phe Gly Arg Lys Pro Pro Leu Tyr Val Ser Met
        35                  40                  45
Ala Leu Phe Phe Ile Gly Ser Ile Val Phe Ala Val Ala Gln Asn Met
    50                  55                  60
Asn Thr Ile Ile Val Gly Arg Val Leu Gln Gly Phe Gly Gly Gly Gly
65                  70                  75                  80
Ile Asp Val Leu Ala Glu Val Ile Leu Ala Asp Met Thr Thr Leu Glu
                85                  90                  95
Glu Arg Ser Lys Tyr Leu Gly Leu Met Ala Ile Pro Met Ala Ile Gly
            100                 105                 110
Asn Ile Met Gly Pro Ser Val Gly Ala Leu Phe Ala Thr Tyr Ala Ser
        115                 120                 125
Trp Arg Trp Ile Gly Trp Val Asn Leu Pro Leu Leu Gly Ile Gly Thr
    130                 135                 140
Pro Leu Val Phe Phe Phe Leu Lys Leu Arg Pro Val Pro Leu Asp Ala
145                 150                 155                 160
Ser Leu Ala Lys Asn Leu Asn Arg Leu Asp Trp Ile Gly Met Val Leu
                165                 170                 175
Val Val Val Gly Ile Thr Ile Phe Val Leu Pro Leu Ser Trp Ala Gly
            180                 185                 190
```

```
Ser Leu Ser Pro Trp Gly Ala Trp Gln Thr Leu Val Pro Leu Phe Leu
        195                 200                 205
Gly Val Ala Val Leu Val Ile Phe Ala Phe Tyr Glu Ala Arg Pro Asp
    210                 215                 220
Ala Pro Ile Val Pro His Arg Leu Phe His Ser Lys Thr Gly Asn Met
225                 230                 235                 240
Thr Leu Val Gly Gly Phe Leu His Gly Ala Val Leu Val Ser Leu Leu
                245                 250                 255
Gln Tyr Leu Pro Leu Ile Tyr Gln Ala Val Gln Leu Glu Thr Ala Ile
            260                 265                 270
Leu Ser Ala Val Ser Leu Leu Pro Thr Val Ile Ile Ser Val Val Val
        275                 280                 285
Ala Ala Ile Ser Met Met Leu Val Pro Trp Phe Gly Gly Tyr Val Trp
    290                 295                 300
Ile Leu Arg Leu Ala Trp Val Ile Leu Thr Leu Gly Thr Gly Leu Leu
305                 310                 315                 320
Ala Leu Phe Asp Val Gly Ser Ser Ser Ser Met Arg Leu Gly Leu Pro
                325                 330                 335
Ile Leu Trp Gly Ala Gly Val Ala Leu Leu Arg Leu Asn Leu Leu Pro
            340                 345                 350
Met Gln Ala Ser Val Lys Asn Val Asp Asp Thr Gly Leu Ala Ile Gly
        355                 360                 365
Gln Phe Leu Thr Ile Arg Met Phe Gly Gly Leu Val Gly Leu Thr Ile
    370                 375                 380
Ser Ala Thr Ile Phe Asn Ser Val Phe Ser Thr Ser Ile Ser Ala Thr
385                 390                 395                 400
Ala Val His Leu Thr Gly Pro Leu Ala Pro Leu Lys Asp Val Ala Asn
                405                 410                 415
Ala Val Ala Phe Ile Asp Lys Leu Arg Ser Ile Asp Val Pro Val Glu
            420                 425                 430
Thr Arg Asp Gln Val Leu Met Val Tyr Leu Lys Cys Phe His Thr Ile
        435                 440                 445
Phe Tyr Thr Met Thr Gly Leu Ile Gly Leu Gly Leu Val Thr Ser Leu
    450                 455                 460
Cys Val Asp Asp Ile Asp Leu Lys Ser Gln Gly Leu Gly Asp Pro Pro
465                 470                 475                 480
Phe Gln Gly Leu Leu Arg Thr Glu Arg Met Glu Xaa Thr Val Ala His
                485                 490                 495
```

<210> 31357
<211> 132
<212> PRT
<213> A.fumigatus

<400> 31357

```
Gln Tyr Pro Asp Phe Leu Ser Thr Gly Arg Phe Arg Ile Leu Cys Leu
1               5                   10                  15
Thr Ser Ser Asp Leu Leu Asp Pro Lys Gly Val Ser Ala Gln Val Leu
            20                  25                  30
Thr Ser Leu Gly Ser Ser Val Leu Pro Arg Phe Pro Pro Asn Val Ile
        35                  40                  45
Glu Gln Val Val Ile His Pro Arg Leu Gly Lys Thr Phe Met Trp Gln
    50                  55                  60
Asp Val Pro Asn Glu Leu Lys Lys His Ser Glu Met Arg Phe Tyr Ser
65                  70                  75                  80
Gly Tyr Ala Leu Asp Asp Val Tyr Lys Ile Tyr Gly Val Asp Glu Thr
```

```
                85                  90                  95
Arg Gly Ala Leu Ala Val Val Arg Pro Asp Gly Tyr Val Gly Met Val
            100                 105                 110
Ala Gly Leu Ala Asp Leu Glu Arg Val Gln Glu Tyr Leu Glu Arg Cys
        115                 120                 125
Ile Arg Thr Ile
    130
```

<210> 31358
<211> 62
<212> PRT
<213> A.fumigatus

<400> 31358

```
Pro Arg Glu Pro Gln Glu Leu Ala Lys Gln Glu Glu Met Gly Cys Tyr
1               5                   10                  15
Tyr His Gly Phe Leu Phe Thr Phe Ile Ser Pro Val Ser Ser Ser Met
            20                  25                  30
Val Ala Pro Ala Leu Pro Ser Ile Ala Ser Asp Phe His Ile Glu Glu
        35                  40                  45
Gln Val Ser Ser Gln Leu Thr Leu Ser Ile Phe Val Leu Ala
    50                  55                  60
```

<210> 31359
<211> 127
<212> PRT
<213> A.fumigatus

<400> 31359

```
Ala Gly Pro Leu Leu Ile Ser Asn Gly Ile Ile Leu His Asn Ser His
1               5                   10                  15
Ala Phe Arg Trp His Leu Ser Ser Phe Pro Leu Thr Val Ala Asn Ser
            20                  25                  30
Arg Lys Leu Ile Asn Gln Gln Ser Val Leu Pro Ile Ser Thr Glu Arg
        35                  40                  45
Glu Thr Ala Tyr Ser Leu Cys Asp Cys Gln His Leu Thr Ile Arg Glu
    50                  55                  60
His Asn Ser Thr Met Ser Ala Pro Lys Ile Thr Leu Tyr Thr Asn His
65                  70                  75                  80
Arg Cys Pro Trp Ala His Arg Ala His Ile Ala Leu Lys Glu Leu Gly
                85                  90                  95
Leu Asp Tyr Glu Glu Val Ile Ile Asp Leu Asn Thr Pro Arg Glu Pro
            100                 105                 110
Trp Tyr Leu Glu Ile Asn Pro Val Gly Arg Leu Gln Pro Trp Glu
        115                 120                 125
```

<210> 31360
<211> 89
<212> PRT
<213> A.fumigatus

<400> 31360

```
Gln Pro Gln Arg Gly Leu Val Pro Ala Ile Ser Tyr Asn Gly Thr Ile
1               5                   10                  15
Ile Thr Glu Ser Ala Ile Val Ala Gln Phe Leu Ala Asp Ala His Pro
            20                  25                  30
```

```
Ser His Leu Leu Pro Pro Ser Asn Ser Val Glu Gly Ala Leu Gln Arg
        35                  40                  45
Ala Arg Ile Ala Phe Phe Val Asp Thr Phe Phe Ser Lys Gly Arg Pro
    50                  55                  60
Ala Leu Ser Gly Phe Ser Ala Arg His Lys Arg Pro Gly Pro Arg Cys
65                  70                  75                  80
Ser Gly Gly Gly Tyr Arg Cys Gly His
                85
```

<210> 31361
<211> 95
<212> PRT
<213> A.fumigatus

<400> 31361

```
Lys Arg Asp Ala Ser Gly Asn Glu Leu Asn Ser Leu Lys Thr Leu Arg
1               5                  10                  15
Ile Ala Cys Phe Lys Met Arg Ala Ile Ala Phe Leu Leu Leu Phe Thr
            20                  25                  30
Trp Leu Phe Thr Ala Ser Gly Thr Ile Leu Glu Asn Gly Gln Ala Arg
        35                  40                  45
Leu Asn Pro Tyr Pro Gly Gln Ala Glu Ile Ile Thr Leu Asp Lys Lys
    50                  55                  60
Thr Trp Arg Asn Tyr Lys Pro Ser Ala Lys Glu Ile Ser Tyr Lys Gly
65                  70                  75                  80
Arg Trp Asp Asp Lys His Ile Ser Cys Glu Ser Asn Arg Thr Thr
                85                  90                  95
```

<210> 31362
<211> 211
<212> PRT
<213> A.fumigatus

<400> 31362

```
Ala Met Val Ser Arg Asp Gln Pro Gly Arg Pro Pro Ser Ala Leu Gly
1               5                  10                  15
Met Ile Pro Tyr Ser Asn Ser His Ser Ala Ala Ser Ser Pro Pro Ser
            20                  25                  30
Pro Thr Thr Ala Pro Ser Ser Pro Ser Arg Pro Ser Ser Pro Ser Ser
        35                  40                  45
Ser Gln Thr Arg Ile His Pro Thr Ser Phe Leu Pro Pro Ile Ala Ser
    50                  55                  60
Lys Ala Pro Cys Ser Ala Pro Ala Ser Pro Ser Ser Ser Ile Pro Ser
65                  70                  75                  80
Ser Ala Arg Val Ala Pro His Phe Leu Ala Ser Gln Arg Ala Thr Ser
                85                  90                  95
Asp Gln Asp Arg Val Ala Ala Gly Glu Ala Ile Val Ala Ala Ile Glu
            100                 105                 110
Lys Glu Leu Glu Pro Ile Leu Ala Ser Gln Lys Gly Pro Gly Pro Phe
        115                 120                 125
Phe Gly Gly Arg Glu Lys Leu Thr Leu Ala Glu Val Leu Ile Gly Ser
    130                 135                 140
Phe Leu Leu Arg Leu Leu Ser Phe His Lys Pro Glu His Gly Leu Leu
145                 150                 155                 160
Arg Glu Asp Leu Pro Gln Leu Leu Glu Lys Arg Thr Pro Ala Phe Thr
                165                 170                 175
```

```
Lys Trp Ala Asn Ala Thr Val Glu Gln Glu Ser Val Asn Phe Ile Trp
            180                 185                 190
Asp Glu Lys Ser Val Val Glu Leu Thr Lys Lys Lys Ile Ala Ser Leu
        195                 200                 205
Ala Lys Lys
    210
```

<210> 31363
<211> 60
<212> PRT
<213> A.fumigatus

<400> 31363

```
Leu Trp Ser Phe His Leu Thr Val Val Val Leu Ser Val Ala Asp Ile
1               5                   10                  15
Pro Ala Lys Ser Lys Ser Pro Arg Gln Ser Thr Val Lys Thr Ala Met
            20                  25                  30
Ser Ala Leu Ile Asp Arg Glu Phe Val Asn Val Leu Phe Arg Leu Ala
        35                  40                  45
Leu Ser Met Leu Thr Gln Ile Asn Phe Thr Trp Phe
    50                  55                  60
```

<210> 31364
<211> 190
<212> PRT
<213> A.fumigatus

<400> 31364

```
Thr Ser Lys Met Ala Thr Leu Lys Ser Arg Asn Ile Ile Leu Leu Leu
1               5                   10                  15
Thr Ser Leu Leu Ser Leu Leu His Leu Ala Thr Ser Gln Arg Thr Pro
            20                  25                  30
Asn Glu Asn Leu Val Leu Ala Asp Cys Gly Ile Gly Leu Gly Val Asn
        35                  40                  45
Gly Gly Ser Thr Ser Arg Glu Met Ile Tyr Tyr Pro Gly Asp Val Trp
    50                  55                  60
Thr Gly Asn Gly Ala Asp Thr Asn Lys Pro Thr Met Met Val Asn Val
65                  70                  75                  80
Pro Trp Ser Gly Ser Tyr Pro Trp Gly Gln Asn Gly Gly Val Ser Ala
                85                  90                  95
Arg Met Pro Asn Gly Asp Val Phe Thr Val His Ile Asn Pro Lys Ile
            100                 105                 110
Lys Asp Pro Ile Ala Ala Gly Asp Ala Trp His Met Tyr Glu Met Asn
        115                 120                 125
Leu Pro Leu Lys Cys Tyr Ser Tyr His Lys Asp Lys Val Tyr Gln Leu
    130                 135                 140
Asp Asp Gly Lys Trp Cys Ser Ser Ala Tyr Val Cys Asn His Arg Gly
145                 150                 155                 160
Thr Pro Thr Pro His Val Lys Pro Ser Pro Ala Pro Lys Pro Gly Pro
                165                 170                 175
Val Pro Val Asn Thr Asn Ser Ala Phe Arg Gly Cys Asp Leu
            180                 185                 190
```

<210> 31365
<211> 300
<212> PRT

<213> A.fumigatus

<400> 31365

```
Ala Leu Ala Met Val Ser Leu Asn Leu Pro Lys Leu Ala Leu Phe Ile
1               5                  10                  15
Ser Phe Leu Gly Thr Cys Leu Ala Glu Leu Leu Thr Pro Phe Pro Asp
            20                  25                  30
Thr Ala Ser Glu Leu Ala Ile Lys Phe Gln Pro Val Leu Asp Phe Asp
        35                  40                  45
Thr Asp Ser Cys Tyr Gln Thr Ala Ala Ile Gly Lys Asp Tyr Lys Leu
    50                  55                  60
Asn Ser Gly Ile Asp Pro Thr Leu Ala Pro Pro Arg Pro Pro Gly Pro
65                  70                  75                  80
Gly Pro Ile Val Arg Ala Ala Thr Asp Asp Glu Gln Val Ile Phe Ala
                85                  90                  95
Ala Asn Ala Ser Asp Ser Asp Ser Asp Ser Gln Ile Gly Ile Arg Ser
            100                 105                 110
Gly Gly Pro Phe Ala Pro Ser Gly Cys Arg Asp Lys Ala Arg Leu Asp
        115                 120                 125
His Ser Gln Thr Tyr Val Arg Glu Arg Cys Asn Arg Gly Trp Cys Ala
    130                 135                 140
Tyr Leu Tyr Gly Tyr Tyr Phe Glu Val Asp Ser Gly Phe Ser Asn Ala
145                 150                 155                 160
His Lys His Asp Trp Glu His Val Ile Val Trp Thr Leu His Asp Gln
                165                 170                 175
Val Phe Phe Val Ser Trp Ser Ala His Gly Asp Tyr Thr Thr His Tyr
            180                 185                 190
Tyr Ser Thr Val Arg Phe Glu Gly Ser His Pro Lys Ile Val Tyr His
        195                 200                 205
Leu Gly Ser Ser Gly Thr His Ser Leu Arg Lys Ala Glu Ala Lys Asp
    210                 215                 220
Asp Lys Ile Glu Asn Asp Thr Gly Arg Trp Phe Arg Ala Pro Leu Val
225                 230                 235                 240
Ser Leu Glu Lys Met Pro Cys Lys Phe Asn Arg Leu Leu Leu Asn His
                245                 250                 255
Asn Trp Gly Ser Ala His Ser Asp Leu Ser Arg Leu Gly Glu Lys Leu
            260                 265                 270
Asp Lys Trp Met Pro Trp Asp Ala Arg Asn Asn Glu Lys Phe Asn Pro
        275                 280                 285
Trp Glu Pro Lys Val Pro Leu Trp Ala Val Arg Glu
    290                 295                 300
```

<210> 31366
<211> 77
<212> PRT
<213> A.fumigatus

<400> 31366

```
His Phe Pro Val Pro His Gln Leu Thr Thr Leu Leu Gln Thr Thr Pro
1               5                  10                  15
Thr Pro Ser Asn Thr Asn Thr Leu Phe Phe Ser Lys His His Lys Ser
            20                  25                  30
His Pro Arg Lys Ala Glu Phe Val Phe Thr Gly Thr Gly Pro Gly Phe
        35                  40                  45
Gly Ala Gly Asp Gly Leu Thr Cys Gly Val Gly Val Pro Arg Trp Leu
    50                  55                  60
```

```
His Thr Tyr Ala Leu Glu His His Leu Pro Ser Ser Ser
65                  70                  75

<210> 31367
<211> 75
<212> PRT
<213> A.fumigatus

<400> 31367
Ala Ala Thr Ser Ile Pro Gln Ala Leu Pro Met Pro Tyr Asp Thr Asn
1               5                   10                  15
Gln Pro Gly Val Pro Arg Glu Phe Ser Ser Lys Asp Leu Arg Thr Val
            20                  25                  30
Gly Asn Tyr Thr Leu Gly Arg Leu Ile Gly Lys Gly Ser Phe Gly Lys
        35                  40                  45
Val Tyr Leu Ala Ser His Lys Leu Thr Asn Gly Ser Lys Val Leu Phe
    50                  55                  60
Thr Pro Arg Pro Thr Gln Glu Ala Glu Pro Phe
65                  70                  75

<210> 31368
<211> 62
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (51)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31368
Val Val Leu Lys Ser Ser Pro Arg Glu Asp Thr Asn Leu Pro Arg Glu
1               5                   10                  15
Ile His His His Arg Gln Phe Leu His Pro His Ile Ala Arg Leu Tyr
            20                  25                  30
Glu Val Ile Val Thr Glu Lys Leu Val Trp Leu Val Leu Glu Tyr Cys
        35                  40                  45
Pro Gly Xaa Gly Thr Leu Gln Arg Asp Ala Ile Gly Tyr Arg
    50                  55                  60

<210> 31369
<211> 545
<212> PRT
<213> A.fumigatus

<400> 31369
Pro Pro Phe Ser Ser Ala His Gln Ser Ser Pro Ser Leu Phe Glu Pro
1               5                   10                  15
Phe Leu Ala Ala Leu Pro Leu Pro Thr Pro Ser Ile Ala Phe Thr Ala
            20                  25                  30
Leu Ala Ala Leu Arg Pro Phe Val Ser Ala Val Thr Ala Phe Asn Pro
        35                  40                  45
Ser Tyr Ser Leu Tyr Ser Ala Leu Ala Ala Ser Tyr Thr Phe Thr Leu
    50                  55                  60
His Gly Asn Leu Val Gly Leu Ser Phe Ala Leu Ser Thr Ser Gly Ile
65                  70                  75                  80
```

```
Asn Val Arg Lys Gly Leu Leu Asp Ile Ser Ala Glu Pro Gly Tyr Arg
                85                  90                  95
Ala Phe Asp Val Phe Tyr Tyr Leu Val Thr Ser Ser Ser Thr Pro Ala
            100                 105                 110
Glu Arg Glu Phe Leu Ala Leu Lys Asp Pro Ser Ala Tyr Thr Leu Leu
        115                 120                 125
Asn Arg Ser Gly Thr Tyr Ser Pro Pro Ser Tyr Leu Pro Thr Ala Asp
    130                 135                 140
Asp Ala Ala Ala Ala Glu Asp Phe Arg Ala Ala Leu Lys Ala Ile Gly
145                 150                 155                 160
Ile Lys Gly Ala Ser Leu Arg Gly Leu Leu Ser Ile Leu Ala Gly Leu
                165                 170                 175
Leu Lys Leu Gly Asn Ala Ala Gly Phe Leu Val Asp Gln Glu Glu Leu
            180                 185                 190
Glu Asp Val Cys Glu Glu Val Gly Gly Leu Leu Gly Leu Asp Pro Glu
        195                 200                 205
Val Leu Leu His Lys Cys Ser Thr Glu Asp Arg Glu Val Leu Ile Ala
    210                 215                 220
Gly Ile Tyr Glu Ala Leu Val Asp Trp Val Ile Val Lys Ala Asn Glu
225                 230                 235                 240
Thr Ile Ala Asn Glu Leu Arg Ala Asn Gln Glu Gly Asp Ser Gly Ser
                245                 250                 255
Gly Ser Ala Gly Gln Trp Ser Asp Glu Asp Thr Val Gly Ile Thr Val
            260                 265                 270
Val Asp Ile Pro Arg Pro Ala Phe Gly Lys Ala Val Ala Leu Arg Gly
        275                 280                 285
Val Phe Asp Asp Thr Leu Gly Ile Asn Ala Glu Met Lys Glu Asp Gly
    290                 295                 300
Val Gln Val Pro Pro Val Gly His Ser Val Leu Asn Asp Leu Asn Asn
305                 310                 315                 320
Ser Val Ala Gln Val Glu Pro Asp Leu Gly Ile Thr Thr Gly Pro Ala
                325                 330                 335
Trp Arg Glu Arg Glu Tyr Glu Leu Asp Lys Arg Gln Glu Val Leu Glu
            340                 345                 350
Lys Val Gly Leu Glu Val Asp Met Asp Ser Phe Leu Arg Gln Leu Leu
        355                 360                 365
Phe Pro Val Glu Ala Glu Gly Ile Thr Val Gly Lys Arg Gly Arg Phe
    370                 375                 380
Asp Leu Met Thr Thr Leu Gly Ser Ser Arg Val Trp His His Ile Ser
385                 390                 395                 400
Ile His Pro Thr Asp His Thr Pro Asp Ser Leu Asn Ala Ala Ser Pro
                405                 410                 415
Thr Ala Ala Trp Ser Ala Gly Thr Val Ser Arg Gln Ile Arg Glu Trp
            420                 425                 430
Arg Leu Ala Glu Trp Ala Asn Arg Arg Leu Lys Gln Met Asp Phe Thr
        435                 440                 445
Ala Asp Phe Asp Val Glu Glu Phe Val Ser Arg Tyr Ser Arg Leu Gly
    450                 455                 460
Cys Arg Glu Gly Arg Asp Gly Val Glu Ser Trp Leu Met Glu Arg Gly
465                 470                 475                 480
Trp Thr Asn Gly Asp Ala Phe Val Gly His Gln Arg Ile Trp Met Arg
                485                 490                 495
Glu Asn Ala Trp Trp Glu Ala Glu Thr Met Leu Asp Leu Lys Pro Asp
            500                 505                 510
Glu Thr Pro Gly Ala Asn Ser Tyr Met Tyr Ala Ser Gly Met Leu Asp
        515                 520                 525
```

```
Asn Gly Val Ala His Val Leu Thr Thr Ile Trp Val Tyr Ala Ser Lys
    530                 535                 540
Lys
545

<210> 31370
<211> 92
<212> PRT
<213> A.fumigatus

<400> 31370
Ser Asp Phe Phe Glu Asn Phe Leu Pro Leu Val Glu Leu Ile Phe Pro
1               5                   10                  15
Phe Thr Pro Gly Arg Thr Ser Gly Asn Ser Gln Ile Trp Leu Asp Leu
            20                  25                  30
Arg Tyr Gly Ile Val Gln Val Ile Glu Tyr Arg Val Ser Asp Gly Arg
        35                  40                  45
Asn Leu Asp Ala Ile Leu Leu His Leu Cys Ile Asp Thr Lys Gly Ile
    50                  55                  60
Ile Lys Asp Ser Ser Gln Cys His Ser Phe Thr Lys Gly Arg Pro Arg
65                  70                  75                  80
Asp Ile His Asp Arg Asp Thr His Gly Val Phe Val
                85                  90

<210> 31371
<211> 62
<212> PRT
<213> A.fumigatus

<400> 31371
Ala Glu Arg Phe Ile Ser Val Gln Leu Ile Leu Gly Ser Thr Pro Gly
1               5                   10                  15
Tyr Met Tyr Ser Pro Phe His Arg Thr His Leu Arg Arg Arg Cys Tyr
            20                  25                  30
Gly Thr Ile Ser Ala Phe Ser Tyr Pro Ser Met Thr Ala Glu Gly Arg
        35                  40                  45
Val Asp Asn Thr Met Thr Thr Phe Gly Leu Ile Ser Val Leu
    50                  55                  60

<210> 31372
<211> 244
<212> PRT
<213> A.fumigatus

<400> 31372
Thr Phe Phe Glu Met Leu Gly Asn Trp Ser Phe Gly Asp Tyr Phe Lys
1               5                   10                  15
Glu Asp Ala Ile Arg Tyr Ser Trp Glu Leu Leu Thr Lys Val Tyr Gly
            20                  25                  30
Leu Asp Pro Gln Arg Leu Tyr Val Thr Tyr Phe Glu Gly His Glu Glu
        35                  40                  45
Gly Gly Leu Glu Pro Asp Leu Glu Ala Lys Ala Leu Trp Arg Ala Ala
    50                  55                  60
Gly Val Pro Glu Asp His Ile Leu Pro Gly Asn Met Lys Asp Asn Phe
65                  70                  75                  80
Trp Glu Met Gly Asp Gln Gly Pro Cys Gly Pro Cys Ser Glu Ile His
```

```
                85                  90                  95
Tyr Asp Arg Ile Gly Gly Arg Asn Ala Ala His Leu Val Asn Gln Asp
            100                 105                 110
Asp Pro Asn Val Leu Glu Ile Trp Asn Asn Val Phe Ile Gln Tyr Asn
        115                 120                 125
Arg Glu Ser Asp Arg Ser Leu Arg Pro Leu Pro Asn Lys His Val Asp
    130                 135                 140
Thr Gly Met Gly Phe Glu Arg Leu Val Ser Val Leu Gln Asp Lys Ser
145                 150                 155                 160
Ser Asn Tyr Asp Thr Asp Val Phe Ser Pro Leu Phe Asn Ala Ile Lys
                165                 170                 175
Asn Ile Thr Gly Ala Arg Glu Tyr Arg Gly Arg Phe Gly Ala Asp Asp
            180                 185                 190
Ser Asp Gly Ile Asp Thr Ala Tyr Arg Val Val Ala Asp His Val Arg
        195                 200                 205
Thr Leu Thr Phe Ala Ile Ser Asp Gly Val Thr Pro Asn Ser Asp Gly
    210                 215                 220
Arg Gly Tyr Val Val Arg Arg Ser Ser Pro Arg Gly Arg Lys Asp Pro
225                 230                 235                 240
Arg Asn Ala Asn
```

<210> 31373
<211> 144
<212> PRT
<213> A.fumigatus

<400> 31373

```
Val Cys Ser Ser Val Ala Phe Glu Ser Ser Ser Ile Asn Ile Ser Ala
1               5                   10                  15
Gln Ile Ser Ile Tyr Ser Leu Gly Leu Lys Leu Ser Ser His Leu Glu
            20                  25                  30
Pro Arg Leu Phe Gly Thr Pro Gln Ile Cys Gly Gly Gly Thr Ser Ser
        35                  40                  45
Ile Gln Ser Asn Ser Phe Asp Thr Thr Glu Arg Met Met Leu Asp Asp
    50                  55                  60
Thr Lys His Thr Ile Tyr Ile His Asp Leu Asp Ser Glu Leu Ala Asp
65                  70                  75                  80
Ser Asp Ala Gln Glu Tyr Ser Ile Thr Phe Leu Pro Asp Ile Gly Ala
                85                  90                  95
Lys Leu Gly Thr Leu Pro Lys Leu Leu Thr Val Asp Thr Gln Pro Gln
            100                 105                 110
Asn Lys Glu Leu Val Leu Tyr Arg Asp Pro Lys Ser Leu Thr Leu Pro
        115                 120                 125
Glu Glu Asp Asp Tyr Val Arg Arg Ala Ile Leu Glu Ser Arg Arg Ser
    130                 135                 140
```

<210> 31374
<211> 279
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (8)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31374
Ser Cys Arg Arg Pro Ser Val Xaa Ile Ser Asn Arg Ser Ile Ala Ile
1 5 10 15
Asp Phe Ala Asp Asp Gly His Tyr Glu Ala Asp Asp Asp Lys Arg Arg
20 25 30
Asn Glu Pro Arg Ser Ile Asp Phe Gly Pro Arg Ser Ile Gly Asp Gln
35 40 45
Glu Thr Arg Lys Lys Asp Arg Lys Ala Lys Lys Arg Thr Ser Lys Lys
50 55 60
His Lys Ala Arg Lys Glu Asp Asn Ala Asn Thr Leu Asp Thr Asp Ala
65 70 75 80
Ser Thr Gln Arg Pro Cys Leu Pro Ser Pro Gln Pro Val Pro Gly Pro
85 90 95
Asp Gly Ile Asn Ser Ser Gln Gln Ala Glu Val Ala Ala Ala Leu Pro
100 105 110
Lys Arg Arg Ser Pro Phe Arg Pro Ala Ile Pro Ser Leu Leu Ser Asn
115 120 125
Thr Val Phe Ser Asn Thr Ala Ala Ser Asn Asn Leu Ala Pro Gly Glu
130 135 140
Pro Gly Leu Arg Arg Thr Arg Ser Leu Pro Ser His Met Asn Arg Pro
145 150 155 160
Pro Pro Val Gly Asn Ala Val Gln Phe Ala Arg Gly Ala Ala Arg Met
165 170 175
Pro Thr Thr Leu Asp Val Thr Ala Asn Asn Ala Pro Pro Glu His Lys
180 185 190
Glu Pro Glu Ile Ser Arg Thr Ala Ala Val Val Met Leu Leu Val Ser
195 200 205
Thr Ala Leu Val Ala Val Cys Ala Glu Phe Leu Val Asp Ala Ile Pro
210 215 220
Glu Met Ile Glu Ser Ser Ser Val Ser Glu Ala Phe Ile Gly Leu Ile
225 230 235 240
Ile Leu Pro Ile Val Gly Asn Ala Ala Glu His Val Thr Ala Val Ser
245 250 255
Val Ala Thr Lys Asn Lys Met Asp Leu Ser Ile Gly Val Ser Val Gly
260 265 270
Ser Ser Ile Gln Ile Gly Glu
275

<210> 31375
<211> 103
<212> PRT
<213> A.fumigatus

<400> 31375
Ile Ser Leu Ser Glu Leu Ala Leu Thr Thr Thr Tyr Tyr Tyr Thr Tyr
1 5 10 15
Ile Ala Ser Ser Met Ser Tyr Tyr Gly Glu Arg Asp Thr Tyr Tyr Gly
20 25 30
Gly Pro Pro Gln Pro Thr Tyr Gly Arg Pro Pro Tyr Asp Arg Pro Pro
35 40 45
Tyr Glu Gln Gln Gln Gln Gln Gln Pro Pro Tyr Asn Arg Pro Pro Tyr
50 55 60
Asp Ile Pro Pro Gln Asp Ser Pro Ser Tyr Asn Arg Pro Pro Tyr Glu
65 70 75 80
Arg Thr Pro Tyr Glu Arg Pro Pro Pro Glu Arg Ser Pro Ser Ser Phe

85 90 95
Asp Pro Ser Arg Pro Arg Tyr
100

<210> 31376
<211> 100
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (32)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31376
Arg Val Pro Cys Cys Gln Asn Ala Asp Thr Val Gln Ala Ala Val Thr
1 5 10 15
Ser Gly Lys Pro Pro Leu Pro Ile Ala Gln Glu Tyr Cys Leu Arg Xaa
20 25 30
Asp Gly Val Leu Pro Met Thr Tyr Asn Ala Lys Trp Lys Arg Leu His
35 40 45
Ala Phe Leu Lys Gln Leu Leu Asn Ala Lys Ala Ser Ala Ala Phe Ile
50 55 60
Leu Ser Gln Glu Phe Glu Ile Lys Gln Leu Leu Trp Asp Leu Ser His
65 70 75 80
Asp Ala Gly Lys Asn Ser Thr Asp Phe Tyr Met His Ile Arg Arg Met
85 90 95
Thr Phe Ser Met
100

<210> 31377
<211> 187
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (181)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31377
Tyr Val Ala Ala His Tyr Ser Pro Ile Lys Ser Ala Pro Tyr Phe Ser
1 5 10 15
Tyr Trp Asn Arg Cys Arg Val Lys Tyr Ser Glu Pro Asp Met Asp Ser
20 25 30
Phe Lys Ala Ile Asp Leu Pro Leu Pro Pro His Phe Val Ala Ala Leu
35 40 45
Gly Arg Pro Thr Val Leu Val Gly Phe Ala Cys Val Phe Leu Phe Ser
50 55 60
Gln Leu Leu Val Trp Thr Ala Lys Tyr Ser Arg Lys Lys Ser Lys Gly
65 70 75 80
Leu Ala Asp Ile Pro Gly Pro Ser Gly Trp Pro Ile Ile Gly Ile Gly
85 90 95
Leu Asp Leu Pro Ala Arg Pro Arg Lys Leu Leu Asn Ser Trp Ala Asn
100 105 110
Gln Phe Gly Asp Thr Phe Lys Val Arg Val Gly Trp Tyr Asn Trp Val

```
        115                 120                 125
Phe Phe Asn His Pro Asp Ala Val Lys Glu Val Phe Asp Arg Gln Val
    130                 135                 140
Ile Gln Pro Pro Thr Ser Glu Ser Leu Ala Val Arg Met Leu Ile Gln
145                 150                 155                 160
Tyr Arg Arg Leu Ser Arg Pro Val Asn His Arg Ser Pro Ser Pro Lys
                165                 170                 175
Asn Thr Val Phe Xaa Ala Met Val Cys Cys Arg
            180                 185
```

<210> 31378
<211> 365
<212> PRT
<213> A.fumigatus

<400> 31378

```
Arg Pro Arg Thr Gly Phe Ala Ser Leu Ser Gly Thr Ala Arg Lys Val
1               5                   10                  15
Arg Asp Val Tyr Gly Asn Met Arg Met Leu Ser Ile Ile Leu Ser Pro
            20                  25                  30
Gly Val Phe Trp Ile Asp Val Phe Pro Pro Leu Asn Trp Leu Pro Arg
        35                  40                  45
Phe Leu Phe Pro Ser Trp Pro Lys Ala Lys Phe Met Ala Gln Arg Met
    50                  55                  60
His Ala Asn Lys Met Arg His Trp Asn Asn Leu Lys Glu Arg Ile Ala
65                  70                  75                  80
Leu Gly Asn Ala Pro Asp Cys Phe Ala Lys Asp Leu Met Glu Ser Asn
                85                  90                  95
Tyr Arg Asp Tyr Gly Leu Glu Glu Glu Thr Val Ser Trp Leu Ala Ser
            100                 105                 110
Ala Val Pro Glu Ala Gly Ala Glu Thr Thr Ala Ser Ala Leu Asn Gly
        115                 120                 125
Met Ile Arg Tyr Leu Ala Met Phe Pro Glu Ala Gln Ala Arg Ala His
    130                 135                 140
Glu Glu Val Thr Arg Ile Leu Gly Asp Gly Arg Met Ala Thr Leu Ala
145                 150                 155                 160
Asp Glu Pro Gln Met Pro Tyr Ile Lys Ala Val Ile Lys Glu Thr Leu
                165                 170                 175
Arg Leu Cys Pro Val Ala Thr Thr Gly Leu Arg Arg Met Ala Asp Gly
            180                 185                 190
Asp Val Lys Tyr Arg Asp Tyr Val Ile Pro Lys Gly Thr Ile Leu Leu
        195                 200                 205
Ala Asn Leu Asn Ala Leu His Trp Asp Pro Glu Arg Phe Pro Asp Pro
    210                 215                 220
Phe Ser Phe Lys Pro Glu Arg Tyr Leu Asn His Pro His Arg Ser Ala
225                 230                 235                 240
Val Tyr Ala Ala Gly Gly Asp Ile Met Ala Arg Asp His Phe Thr Phe
                245                 250                 255
Gly Ala Gly Arg Arg Ile Cys Pro Gly Ile His Leu Ala Glu Asn Gly
            260                 265                 270
Leu Phe Leu Ala Val Ser Asn Leu Ile Trp Ala Tyr Glu Phe Lys Leu
        275                 280                 285
Pro Leu Asp Glu Lys Gly Asn Glu Ile Pro Leu Asp Ile Ser Asp Glu
    290                 295                 300
Gly Phe Met Glu Gly Ala Ile Arg Val Pro Lys Gln Tyr Thr Val Arg
305                 310                 315                 320
```

```
Ile Leu Glu Arg Asn Pro Ala Arg Ser Arg Leu Ile Arg Glu Ser Trp
                325                 330                 335
Glu Gln Ala Gln Lys Asp Gly Tyr Ile Leu Arg Gly Val His Val Asp
            340                 345                 350
Ala Asp Gly Gly Val Arg Gly Ser Ala Lys Val Lys Val
        355                 360                 365
```

<210> 31379
<211> 78
<212> PRT
<213> A.fumigatus

<400> 31379

```
Arg Asn Thr Asn Ser Cys Phe Leu Gly Ile Pro Arg Gln Gly Val Met
1               5                   10                  15
Pro Tyr Ala Ser Met Ser Asn Leu Leu Trp Lys Trp Lys Arg Gln Ser
            20                  25                  30
Ser Phe Ser Pro Tyr Trp Ile Arg Ser Phe Leu Ser Leu Ser Thr Ile
        35                  40                  45
Thr Ala Cys Cys Leu Asp Asn His Ala Leu Ala Val Asp Gly Glu Ala
    50                  55                  60
Tyr Met Thr Lys Trp Leu Asn Trp His Asp Gln Glu Gly Arg
65                  70                  75
```

<210> 31380
<211> 334
<212> PRT
<213> A.fumigatus

<400> 31380

```
Lys Asp Glu Phe Pro Gly Gln Gln Arg Thr Val His Leu Pro Thr Ser
1               5                   10                  15
Pro Lys Ser Thr Thr Ser Asn Glu Ala Leu Leu Ser Asp Ser Ser Pro
            20                  25                  30
Leu Gln Leu Glu Lys Ser Asn Ile Leu Leu Leu Gly Pro Ser Gly Val
        35                  40                  45
Gly Lys Thr Leu Met Ala Lys Thr Leu Ala Arg Val Leu Ser Val Pro
    50                  55                  60
Phe Ser Ile Ser Asp Cys Thr Pro Phe Thr Gln Ala Gly Tyr Ile Gly
65                  70                  75                  80
Glu Asp Ala Glu Val Ser Val His Arg Leu Leu Gly Val Ala Lys Tyr
                85                  90                  95
Asp Val Glu Gln Ala Glu Arg Gly Ile Ile Val Leu Asp Glu Val Asp
            100                 105                 110
Lys Ile Ala Ala Ala Lys Val Ser His Gly Lys Asp Val Ser Gly Glu
        115                 120                 125
Gly Val Gln Gln Ala Leu Leu Lys Ile Ile Glu Gly Thr Thr Val Gln
    130                 135                 140
Val Gln Ala Lys Gln Glu Arg Asn Ala His Arg Thr Ser Gly Thr Pro
145                 150                 155                 160
Ser Ser Tyr Pro Ser Asn Asn Pro Phe Gly Asn Ser Pro Phe Ser Gln
                165                 170                 175
Ser Pro Thr Gly Asn Ala Pro Gln Lys Gly Glu Ile Tyr Asn Val Arg
            180                 185                 190
Thr Asp Asn Ile Leu Phe Ile Phe Ser Gly Ala Phe Val Gly Leu His
        195                 200                 205
```

```
Lys Val Ile Met Asp Arg Ile Ser His Gly Ser Met Gly Phe Gly Gln
    210                 215                 220
Pro Val Arg Ser Gln Ser Ser Pro Thr His Arg Pro Gly Asp Pro Leu
225                 230                 235                 240
Ala Thr Thr Pro Asn Gln Pro Val Pro Ile Leu Pro Gly Ser Glu Glu
                245                 250                 255
Glu Ala Leu Tyr Lys Lys His Leu Pro Phe Phe Thr Ala Ala Ser Pro
            260                 265                 270
Thr Ser Pro Asp Gly Glu Pro Pro Tyr Phe Asn Ala Leu Asp Leu Leu
        275                 280                 285
Asn Pro Thr Asp Leu Gln Asn Tyr Gly Phe Ile Pro Glu Leu Ile Gly
    290                 295                 300
Arg Ile Pro Val Thr Ala Ala Leu Ser Thr Leu Ser Gln Pro Leu Leu
305                 310                 315                 320
Val Arg Ile Leu Thr Glu Pro Arg Asn Ser Leu Leu Ala Gln
                325                 330
```

<210> 31381
<211> 225
<212> PRT
<213> A.fumigatus

<400> 31381

```
Ile Phe Trp Cys Leu Val Met Leu Arg Leu Pro Ile Arg Ala His Gly
1               5                   10                  15
Leu Lys Cys Ala Ser Arg Ala His His Ser Ser Leu Leu Arg Tyr Arg
            20                  25                  30
His Val Ala Ile Cys Gln Thr Cys Trp Ala Asn Arg Gly Phe Thr Ser
        35                  40                  45
Thr Ala Lys Ser Phe Pro Thr Tyr Ser Glu Phe Asn Arg Ser Asp Phe
    50                  55                  60
Thr Asn Gln Pro Trp Ser Ser Ile Tyr Glu Ala Gly Leu Pro Thr Ala
65                  70                  75                  80
Gly Pro Leu Gly Ser Thr Pro Ala Phe Gly Ala Pro Arg Ile Thr Pro
                85                  90                  95
Lys Thr Leu Lys Gln Tyr Leu Asp Gln Phe Val Val Gly Gln Asp Arg
            100                 105                 110
Ala Lys Lys Ile Leu Ser Val Ala Val Phe Asn His Tyr Gln Arg Val
        115                 120                 125
Gln Glu Leu Gln Arg Arg Glu Glu Glu Lys Ala Glu Leu Leu Ala Arg
    130                 135                 140
Gln Ala Arg Arg Glu Ala Leu Glu His His Pro Ala Glu Gly Lys Pro
145                 150                 155                 160
Tyr Val Pro Trp Asn Ser Ser Gln Ser Thr Leu Asn Ile Glu Lys Thr
                165                 170                 175
Ser Phe Gln Asp Ser Asn Ala Pro Phe Ile Tyr Pro Leu Val Pro Ser
            180                 185                 190
Arg Arg Arg Pro Met Lys His Phe Leu Ala Ile Arg Leu His Phe Asn
        195                 200                 205
Trp Arg Asn Pro Thr Ser Ser Tyr Trp Asp His Arg Gly Trp Ala Arg
    210                 215                 220
His
225
```

<210> 31382
<211> 63

<212> PRT
<213> A.fumigatus

<400> 31382
Leu Asn Ile Ser Ile Leu Thr Thr Ile Ile Leu Leu Gly Leu Asn Tyr
1 5 10 15
Ile Arg Ile Arg Ala Ile Ile Asn Ile Phe Phe Ser Ser Leu Lys Ala
20 25 30
Phe Ile Tyr Ser Ser Pro Tyr Ile Lys Gly Ala Leu Phe Tyr Ile Asn
35 40 45
Thr Ile Lys Gly His Ala Ile Phe Lys Lys Phe Tyr Ile Asn Tyr
50 55 60

<210> 31383
<211> 150
<212> PRT
<213> A.fumigatus

<400> 31383
Lys Ser Trp Pro Ile Val Lys Ser Phe Val Gly Ala Val Arg Gln Asn
1 5 10 15
Glu Gly Ala Gln Leu Pro Ile Gly Ala Ala Gly Phe Cys Trp Gly Gly
20 25 30
Lys His Thr Val Asn Leu Ala His Gly Phe Glu Val Asp Gly Lys Pro
35 40 45
Leu Ile Asn Ala Gly Phe Thr Arg His Pro Ser Leu Leu Asn Ile Pro
50 55 60
Gly Glu Ile Glu Lys Ile Thr Ile Pro Val Ser Phe Ala Leu Gly Asp
65 70 75 80
Leu Asp Val Ile Val Lys Lys Pro Gln Ile Glu Gln Ile Lys Lys Ile
85 90 95
Met Glu Gly Gly Glu Lys Val Gly Glu Val Lys Val Tyr Tyr Gly Ala
100 105 110
Ser His Gly Phe Cys Val Arg Ala Asp Arg Leu Leu Lys Asp Ala Glu
115 120 125
Gln Gln Ala Thr Glu Ala Glu Asp Gln Ala Leu Asp Trp Phe Asn Arg
130 135 140
His Phe Ala Asn Val Gln
145 150

<210> 31384
<211> 308
<212> PRT
<213> A.fumigatus

<400> 31384
Lys Ile Ser Pro Val Arg Phe Leu Ile Ile Ala Phe Gln Val Pro Gln
1 5 10 15
Ile Ser Ala Ser Gln Asp Met Ala Thr Gln Leu Leu Arg Leu Thr Asn
20 25 30
Leu Pro Val Gly Gln Ser His Glu His Lys Gly Asp Lys Arg Pro Leu
35 40 45
Lys Ala Ala Pro Val Lys Ile Arg Ser Leu Thr Phe Arg Tyr Pro Ser
50 55 60
Arg Leu Asp Ala Pro Ala Leu Arg Asn Val Thr Leu Ala Ile Ala Glu
65 70 75 80

```
Asn Ser Cys Thr Ala Ile Val Gly Gly Ser Gly Ser Gly Lys Ser Thr
                85                  90                  95
Ile Ala Ser Leu Ile Leu Ser Leu Tyr Glu Thr Pro Leu Ser Met Cys
            100                 105                 110
Lys Thr Pro Thr Ile Ser Ile Gly Gly Leu Asp Ile Arg Arg Leu His
        115                 120                 125
Thr Pro Ser Leu Arg Ser Leu Ile Ser Ile Val Ser Gln Gln Pro Thr
    130                 135                 140
Val Phe Pro Gly Thr Ile His His Asn Ile Cys Tyr Gly Leu Arg Asp
145                 150                 155                 160
Glu Ser Pro Leu Arg Glu Leu His Asn Val Arg Thr Ala Ala Gln Ala
                165                 170                 175
Ala Gly Ile Asp Asp Phe Ile Val Ser Leu Pro Asp Gly Tyr Ser Thr
            180                 185                 190
Ile Ile Gly Asp Gly Gly Val Gly Leu Ser Gly Gly Gln Ala Gln Arg
        195                 200                 205
Leu Ala Ile Ala Arg Ala Leu Val Arg Arg Pro Gln Val Leu Ile Leu
    210                 215                 220
Asp Glu Ala Thr Ser Asn Leu Asp Pro Glu Ser Ala Lys Val Ile Arg
225                 230                 235                 240
Gln Thr Val Gln Arg Leu Val Ser Ala Arg Leu Gly Leu Thr Val Ile
                245                 250                 255
Ile Ile Thr His Ala Arg Glu Met Met Glu Ile Ala Asp Asn Ile Val
            260                 265                 270
Val Leu Gln Gln Gly Ser Ile Val Glu Gln Gly Pro Tyr Glu Val Leu
        275                 280                 285
Ala Arg Arg Arg Gly Gly Lys Leu Lys Ala Leu Ile Glu Asp Ser Glu
    290                 295                 300
Gly Val Asp Ser
305
```

<210> 31385
<211> 205
<212> PRT
<213> A.fumigatus

<400> 31385

```
Phe Pro Glu Ile Ala Ala Pro Ser Gly Pro Cys Gly Glu Glu Ile Asp
1               5                   10                  15
Gly Thr Ala Ser Tyr Phe Met His Tyr Leu Leu Glu Ala Ser Gly Gln
            20                  25                  30
Ala Trp Val Asp Gln Leu Arg Lys Glu Ala Phe Arg Arg Val Ser Asp
        35                  40                  45
Gln Pro Arg Gln Trp Phe Asp Glu Glu Ser Asn Ser Pro Ser Arg Ile
    50                  55                  60
Thr Ala Cys Leu Asp Gln Asn Gly Glu Asp Met Arg Asn Leu Val Gly
65                  70                  75                  80
Arg Phe Gly Gly Tyr Val Leu Val Ala Val Ala Ile Thr Met Thr Ala
                85                  90                  95
Val Ile Trp Cys Leu Val Val Cys Trp Lys Leu Thr Leu Val Ala Leu
            100                 105                 110
Ser Cys Gly Pro Val Ile Tyr Ala Ile Thr Arg Gly Phe Glu Gly Thr
        115                 120                 125
Ser Gly Leu Trp Gln Gly Arg Cys Asn Glu Val Ala Arg Asn Ala Ser
    130                 135                 140
Asp Val Phe Val Glu Thr Phe Ser Glu Ile Arg Thr Val Arg Thr Leu
```

```
145                 150                 155                 160
Thr Leu Glu Pro Phe Phe His Lys Lys Tyr Leu Met Ala Ala Ser Lys
                165                 170                 175
Cys Met Lys Ile Cys Leu Lys Arg Ala Ala Cys Thr Gly Ile Leu Phe
            180                 185                 190
Gly Leu Val Glu Ser Thr Ile Ile Phe Val Ser Gly Glu
        195                 200                 205
```

<210> 31386
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31386

```
Arg Glu Ser Thr Tyr Thr His Ser Arg Thr Ile Ser Asn Gly Pro Tyr
1               5                   10                  15
Met Ser Tyr Ser Asn Lys Lys Tyr Thr Thr Gln Ala Lys Tyr Asp Pro
            20                  25                  30
Cys Arg Gly Leu Thr Gly Tyr Ser Val Ala His Ser Thr Ile Ala Pro
        35                  40                  45
Val Ser Phe Leu Gly Ser Arg Phe Pro Gly Pro Glu Trp
    50                  55                  60
```

<210> 31387
<211> 85
<212> PRT
<213> A.fumigatus

<400> 31387

```
Thr Gly His Val Ala Lys Glu Asp Glu Ile Glu Gln Asn Leu Asp Leu
1               5                   10                  15
Leu Ser Gly Ala Ala Ser Arg Leu Asn Gly Leu Ala Arg Ala Thr Gly
            20                  25                  30
Arg Glu Leu Asp Glu Gln Asn Arg His Leu Glu Arg Ile Met Gly Lys
        35                  40                  45
Val Ser Val Pro Ala Cys Phe Ser Ser Ala Cys Gly Leu Thr Asp Leu
    50                  55                  60
Leu Gln Ser Asp Phe Val Asp Asp Gln Ile Ala Met Asn Arg Ala Lys
65                  70                  75                  80
Leu Asp Arg Ile His
                85
```

<210> 31388
<211> 66
<212> PRT
<213> A.fumigatus

<400> 31388

```
Ala His Leu Tyr Ser Thr His Ile Ser Ile Cys Leu Ile Ser Thr Arg
1               5                   10                  15
Ala Ala Tyr Ser Gly Thr Ala Leu Ala Phe Arg Asp Arg Leu Ile Ile
            20                  25                  30
Glu Trp Asn Lys Thr Gln Gln Arg Gln Ser Phe Ala Asp Gln Lys Arg
        35                  40                  45
Val Tyr Cys Arg Cys Tyr Cys Leu Asp Val Pro Ile Tyr Leu Val Lys
    50                  55                  60
```

Phe Cys
65

<210> 31389
<211> 593
<212> PRT
<213> A.fumigatus

<400> 31389
Phe Arg Lys Lys Glu Gly Leu Lys Asp Leu Gly Phe Arg Ile Glu Asp
1 5 10 15
Val Ile Asn Gln Glu His Asp Ala Ala Leu Gly Asn Gly Gly Leu Gly
20 25 30
Arg Leu Ala Ala Cys Phe Leu Asp Ser Met Ala Thr Leu Asn Tyr Pro
35 40 45
Ala Trp Gly Tyr Gly Leu Arg Tyr Arg Tyr Gly Ile Phe Lys Gln Glu
50 55 60
Ile Val Asp Gly Tyr Gln Val Glu Ile Pro Asp Tyr Trp Leu Asp Phe
65 70 75 80
Asn Pro Trp Glu Phe Pro Arg His Asp Ile Thr Val Asp Ile Gln Phe
85 90 95
Tyr Gly Trp Val Arg Thr Tyr Gln Asp Glu Asn Gly Lys Thr Ile His
100 105 110
Ser Trp Gln Asp Gly Glu Ala Val Gln Ala Val Ala Tyr Asp Val Pro
115 120 125
Ile Pro Gly Tyr Gly Thr Arg Thr Thr Asn Asn Leu Arg Leu Trp Ser
130 135 140
Ser Lys Ala Ala Ser Gly Glu Phe Asp Phe Gln Lys Phe Asn Ala Gly
145 150 155 160
Asp Tyr Glu Ser Ala Val Ala Asp Gln Gln Arg Ala Glu Thr Ile Ser
165 170 175
Ala Val Leu Tyr Pro Asn Asp Asn Leu Glu Arg Gly Lys Glu Leu Arg
180 185 190
Leu Lys Gln Gln Tyr Phe Trp Cys Ala Ala Ser Leu Tyr Asp Ile Val
195 200 205
Arg Arg Phe Lys Lys Thr Lys Arg Ala Trp Ser Lys Phe Pro Glu Gln
210 215 220
Val Ala Ile Gln Leu Asn Asp Thr His Pro Thr Leu Ala Ile Val Glu
225 230 235 240
Leu Gln Arg Ile Leu Ile Asp Gln Glu Gly Leu Glu Trp Asp Glu Ala
245 250 255
Trp Thr Ile Val Thr Lys Thr Phe Gly Tyr Thr Asn His Thr Val Leu
260 265 270
Pro Glu Ala Leu Glu Lys Trp Ser Val Pro Leu Met Gln Asn Leu Leu
275 280 285
Pro Arg His Leu Gln Ile Ile Tyr Asp Ile Asn Leu Phe Phe Leu Gln
290 295 300
Ser Val Glu Lys Arg Phe Pro Ser Asp Arg Glu Met Leu Ser Arg Val
305 310 315 320
Ser Ile Ile Glu Glu Ser His Pro Lys Met Val Arg Met Ala His Ile
325 330 335
Ala Ile Ile Gly Ser His Lys Val Asn Gly Val Ala Glu Leu His Ser
340 345 350
Asp Leu Ile Lys Thr Thr Ile Phe Lys Asp Phe Val Lys Ile Tyr Gly
355 360 365
Pro Asp Lys Phe Thr Asn Val Thr Asn Gly Ile Thr Pro Arg Arg Trp

```
    370                 375                 380
Leu His Gln Ala Asn Pro Arg Leu Ser Asp Leu Ile Ala Ser Lys Leu
385                 390                 395                 400
Gly Gly Tyr Asp Phe Leu Lys Asp Leu Thr Leu Leu Asp Gln Leu Glu
                405                 410                 415
Ala Tyr Val Asp Asp Lys Ala Phe Arg Ala Glu Trp Ser Glu Ile Lys
            420                 425                 430
Thr Ala Asn Lys Leu Arg Leu Ala Lys His Ile Lys Asp Thr Thr Gly
        435                 440                 445
Tyr Ser Val Asn Pro Asn Ala Leu Phe Asp Val Gln Val Lys Arg Ile
    450                 455                 460
His Glu Tyr Lys Arg Gln Gln Leu Asn Ile Phe Gly Val Ile His Arg
465                 470                 475                 480
Tyr Leu Ile Ile Lys Ala Met Ser Arg Glu Glu Lys Glu Lys Leu Val
                485                 490                 495
Pro Arg Val Ser Ile Phe Gly Gly Lys Ala Ala Pro Gly Tyr Trp Met
            500                 505                 510
Ala Lys Thr Ile Ile His Leu Ile Asn Arg Val Ala Ala Val Val Asn
        515                 520                 525
Asn Asp Ala Asp Val Gly Asp Leu Leu Lys Val Ile Phe Ile Glu Asp
    530                 535                 540
Tyr Asn Val Ser Lys Ala Glu Ile Ile Cys Pro Ala Ser Asp Ile Ser
545                 550                 555                 560
Glu His Ile Ser Thr Ala Gly Thr Glu Ala Ser Gly Asn Ser Asn Met
                565                 570                 575
Lys Phe Val Leu Asn Gly Gly Leu Ile Ile Gly Thr Cys Asp Gly Ala
            580                 585                 590
Asn
```

<210> 31390
<211> 205
<212> PRT
<213> A.fumigatus

<400> 31390

```
Asp Ser Leu Cys Thr Leu Leu Val Arg Asp Cys Thr Leu Val Val Thr
1               5                   10                  15
Gly Ile Glu Leu Leu Glu Ile Glu Leu Pro Thr Gly Cys Leu Ala Arg
            20                  25                  30
Pro Gln Ser Glu Val Val Arg Arg Ala Ser Pro Ile Ser Trp Asp Arg
        35                  40                  45
Asp Ile Val Gly His Ser Leu Asn Ser Phe Thr Val Leu Pro Gly Val
    50                  55                  60
Asp Gly Leu Ala Val Leu Ile Leu Val Arg Ser Tyr Pro Thr Val Glu
65                  70                  75                  80
Leu Asp Ile Asn Ser Asp Ile Val Ser Arg Glu Phe Pro Gly Val Glu
                85                  90                  95
Ile Lys Pro Val Val Arg Asn Leu Asn Leu Ile Ala Ile His Asn Leu
            100                 105                 110
Leu Phe Glu Asp Thr Val Ser Val Pro Gln Ser Val Ala Pro Gly Trp
        115                 120                 125
Ile Val Gln Cys Arg His Thr Ile Lys Glu Ala Arg Gly Gln Thr Pro
    130                 135                 140
Gln Ala Ser Val Ser Gln Ser Gly Ile Met Leu Leu Val Asp Asp Val
145                 150                 155                 160
```

```
Leu Asn Ser Lys Thr Lys Val Leu Gln Thr Leu Phe Phe Pro Lys Ser
                165                 170                 175
Ala Thr Thr Phe Glu Phe Asp Gly Pro Ala Arg Arg Arg Pro Thr Ser
            180                 185                 190
Gly Ser Ile Leu His Pro Asn Ile Lys His Arg Ile Val
        195                 200                 205
```

<210> 31391
<211> 68
<212> PRT
<213> A.fumigatus

<400> 31391

```
Arg Asn Ala Pro Val Asn Leu Asn His His Phe Arg Val Tyr Ser Gln
1               5                   10                  15
Asn Val Tyr Gly Gly Phe Gly Lys Gly Leu Tyr Glu Gly Ser Trp Ala
            20                  25                  30
Thr Gly Pro Glu Lys Asn Val Phe Gly Asn Val Ser Leu Gly Ser Leu
        35                  40                  45
Val Ala Gly Thr Ser Arg Lys Leu Lys His Val Cys Tyr Ile Leu Pro
    50                  55                  60
Ile Gly Ser Ala
65
```

<210> 31392
<211> 157
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (20)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31392

```
Ser Met Tyr Val Ile Ser Cys Leu Leu Ala Leu Leu Lys Thr Asp Asp
1               5                   10                  15
Met Lys Ile Xaa Val Tyr Thr Leu Thr Glu Gly Asn Thr Leu Gln Glu
            20                  25                  30
Phe Ala Tyr Asp Ser Gly Thr Gly Trp Tyr Asn Gly Gly Leu Gly Gly
        35                  40                  45
Ala Lys Phe Gln Val Ala Pro Tyr Ser Arg Ile Ala Ala Val Phe Leu
    50                  55                  60
Ala Gly Thr Asp Ala Leu Gln Leu Arg Ile Tyr Ala Gln Lys Pro Asp
65                  70                  75                  80
Asn Thr Ile Gln Glu Tyr Met Trp Asn Gly Ala Ser Asn His Lys Ser
                85                  90                  95
Leu Asp Val Leu Ser Asn Leu His Leu Arg Arg Trp Leu Glu Gly Gly
            100                 105                 110
His Gln Pro Gly Arg Cys Ser Pro Arg His Trp Asn Arg Ser His Leu
        115                 120                 125
Leu Pro Leu Tyr Arg Leu Gln Trp Pro Lys His Pro Val Arg His Cys
    130                 135                 140
His Ile His Ile Leu Asn Thr Gly Thr Leu Thr Asn Ile
145                 150                 155
```

<210> 31393
<211> 84
<212> PRT
<213> A.fumigatus

<400> 31393
Pro Glu Gln Met His Cys Ser Cys Glu Ser Met His Arg Ser Gln Ile
1 5 10 15
Thr Gln Ser Arg Ser Ile Cys Gly Thr Val Arg Arg Ile Ile Ser Leu
20 25 30
Leu Met Cys Phe Leu Thr Cys Ile Leu Gly Asp Gly Trp Lys Glu Gly
35 40 45
Thr Asn Leu Gly Gly Ala Leu Pro Gly Thr Gly Ile Gly Ala Thr Ser
50 55 60
Phe Arg Tyr Thr Asp Tyr Asn Gly Pro Ser Ile Arg Tyr Gly Thr Ala
65 70 75 80
Ile Tyr Thr Ser

<210> 31394
<211> 150
<212> PRT
<213> A.fumigatus

<400> 31394
Ile Arg Glu Arg Leu Leu Ile Phe Asp Ile His Arg Ile Trp Phe Gln
1 5 10 15
Thr Asp Asp Leu Lys Leu Val Gln Arg Ala Tyr Asp Pro His Lys Gly
20 25 30
Trp Tyr Pro Asp Leu Val Thr Ile Phe Asp Arg Ala Pro Pro Arg Thr
35 40 45
Ala Ile Ala Ala Thr Ser Phe Gly Ala Gly Asn Ser Ser Ile Tyr Met
50 55 60
Arg Ile Tyr Phe Val Asn Ser Asp Asn Thr Ile Trp Gln Val Cys Trp
65 70 75 80
Asp His Gly Lys Gly Tyr His Asp Lys Gly Thr Ile Thr Pro Val Ile
85 90 95
Gln Gly Ser Glu Val Ala Ile Ile Ser Trp Gly Ser Phe Ala Asn Asn
100 105 110
Gly Pro Asp Leu Arg Leu Tyr Phe Gln Asn Gly Thr Tyr Ile Ser Ala
115 120 125
Val Ser Glu Trp Val Trp Asn Arg Ala His Gly Ser Gln Leu Gly Asn
130 135 140
Ser Ala Leu Pro Pro Ala
145 150

<210> 31395
<211> 207
<212> PRT
<213> A.fumigatus

<400> 31395
Asn Met Thr Ser Lys Ala Ala Ala Phe His Asp Glu Gly Asp Met Ala
1 5 10 15
Lys Pro Thr Gly Leu Asp Ala Ile His Met Val Arg Ile Pro Leu Thr
20 25 30

```
Glu Glu Asp Ser Lys Arg Ile Cys Arg Lys Thr Asp Arg Val Ile Leu
        35                  40                  45
Ala Ile Leu Val Trp Val Tyr Phe Leu Gln Ile Leu Asp Lys Ser Val
    50                  55                  60
Leu Gly Tyr Gly Ala Thr Phe Gly Leu Gln Ala Asp Thr His Leu Thr
65                  70                  75                  80
Gly Asn Gln Tyr Ser Leu Val Gly Ser Ile Ala Pro Ile Ala Gln Leu
                85                  90                  95
Ala Trp Gln Pro Phe Ser Ser Phe Leu Ile Val Lys Val Pro His Arg
            100                 105                 110
Ile Leu Met Pro Ser Leu Val Leu Gly Trp Gly Ile Ala Gln Thr Cys
        115                 120                 125
Met Ala Ala Cys His Ser Phe Gly Gly Leu Met Ala Thr Arg Phe Phe
    130                 135                 140
Leu Gly Leu Phe Glu Ala Gly Cys Leu Pro Leu Phe Ser Ile Ile Thr
145                 150                 155                 160
Ser Gln Trp Tyr Arg Arg Ala Glu Gln Pro Ile Arg Val Ala Ala Trp
                165                 170                 175
Tyr Ser Thr Asn Gly Leu Ala Thr Ile Val Ala Ala Ala Leu Ser Tyr
            180                 185                 190
Gly Leu Ala His Ile Lys Ser Asp Leu Leu Lys Glu Trp Gln Met
        195                 200                 205

<210> 31396
<211> 76
<212> PRT
<213> A.fumigatus

<400> 31396
Cys Trp Asn Ser Thr Ala Asn Gln Thr Ser Ile Phe Leu Phe Val Gly
1               5                   10                  15
Leu Ile Thr Val Ile Ser Ala Pro Ile Val Tyr Trp Lys Leu Asp Asn
            20                  25                  30
Asp Ile Ala Ser Ala Arg Phe Leu Thr Glu Gln Glu Lys Leu Gln Ala
        35                  40                  45
Met Glu Arg Leu Arg Ala Asn Gln Thr Gly Ala Gly Ser Arg Glu Phe
    50                  55                  60
Lys Leu Ser His Val Val Glu Ala Gly Leu Glu Pro
65                  70                  75

<210> 31397
<211> 77
<212> PRT
<213> A.fumigatus

<400> 31397
Leu Ala Trp Leu Ile Ala Cys Ile Ala Ser Ile Ile Ser Asp Ile Lys
1               5                   10                  15
Thr Asp Tyr Pro Asn Tyr Ser Trp Trp Ala Val Ala Tyr Met Phe Cys
            20                  25                  30
Cys Ile Met Gly Val Thr Ile Val Phe Gly Ser Asp Thr Gly Leu Val
        35                  40                  45
Tyr Gly Val Ala Val Cys Phe Thr Pro Phe Val Val Gly Phe Ser Ala
    50                  55                  60
Leu Met Gly Asn Arg Leu Trp Ala Ile Phe Gln Gln Ala
65                  70                  75
```

<210> 31398
<211> 177
<212> PRT
<213> A.fumigatus

<400> 31398
Ala Asn Leu Lys Gln Val Val Trp Ile Phe Tyr Phe Gly Ser Ser Pro
1 5 10 15
Gln Ala Thr His Arg Gly Phe Ile Asp Ser Phe Ala Leu Asn Lys Glu
20 25 30
Ser Ser Gly Ala Tyr Gly Asn Arg Pro Met Ser Thr Ala Tyr Gly Pro
35 40 45
Arg Pro Asp Thr Met Ser Thr Ser Ala Pro Gln Met Tyr Thr Ser Ala
50 55 60
Gln Leu Asn Gly Phe Glu Thr Ser Ser Pro Val Ser Gly Tyr Pro Gly
65 70 75 80
Gly Gly Pro Gly Ser Glu Asn Arg Ser Ser Ser Gln Ala Arg Phe Gly
85 90 95
Asn Pro Ser Ala Ser Asn Val Ala Gly Asn Asn Ser Gly Gln Asp Glu
100 105 110
Val Pro Pro Pro Thr Glu Tyr Pro Tyr Lys Ala Lys Ala Ile Tyr Ser
115 120 125
Tyr Asp Ala Asn Pro Glu Asp Ala Asn Glu Ile Ser Phe Ser Lys His
130 135 140
Glu Ile Leu Glu Val Ser Asp Val Ser Gly Arg Trp Trp Gln Ala Arg
145 150 155 160
Lys Ser Asn Gly Glu Thr Gly Ile Ala Pro Ser Asn Tyr Leu Ile Leu
165 170 175
Leu

<210> 31399
<211> 71
<212> PRT
<213> A.fumigatus

<400> 31399
Tyr Leu Ala Leu Leu Leu Ile Ile Lys Gln Leu Ser Arg Pro Gln Thr
1 5 10 15
Val Lys Arg Leu Trp Gln Tyr Ile Arg Glu His Asn Leu Gln Asp Pro
20 25 30
Asn Asp Arg Arg His Ile Arg Cys Asp Asp Ala Met Arg Ala Val Phe
35 40 45
Lys Gln Asp Arg Ile His Met Phe Thr Met Thr Lys Ile Leu Asn Gln
50 55 60
Asn Leu Tyr Ser Pro Asp Glu
65 70

<210> 31400
<211> 170
<212> PRT
<213> A.fumigatus

<400> 31400
Arg Ala Leu Leu Ser Gln Ala Ala Ile Lys Gln Leu Ile Met Lys Arg

```
1               5                   10                  15
Phe Asp Ile Phe Ala Glu Gln Ser Gly Ile Gly Gly Ser Ser Asp Ala
            20                  25                  30
Ala Ala Ser Ser Thr Ala Pro Thr Ser Asn Gly Gln Leu Gln Asn His
        35                  40                  45
Asp Ser Val Thr Pro Ala Glu Pro Ser Pro Pro Ala Pro Ser Ser Ser
    50                  55                  60
Pro Gln Lys Arg Gln Ala Glu Ser Asp Asp Gln Ser Asp Pro Pro Arg
65                  70                  75                  80
Lys Thr Pro Pro Ala Lys Lys Lys Lys Pro Asp His Asp Ile Asp Ala
                85                  90                  95
Asp Ala Leu Tyr Ala Ala Lys Leu Gln Ala Glu Glu Asn Met Arg Ala
            100                 105                 110
Arg Pro Thr Arg Gly Ala Ser Ala Arg Arg Ser Ala Pro Val Lys Lys
        115                 120                 125
Lys Ala Lys Ala Lys Thr Ser Lys Lys Val Lys Ala Glu Asp Asp Ser
    130                 135                 140
Asp Leu Asp Ser Gly Ser Glu Thr Lys Lys Glu Val Asn Arg Ser Gly
145                 150                 155                 160
Gly Phe His Val Ser Phe Gln His Phe Leu
                165                 170
```

<210> 31401
<211> 76
<212> PRT
<213> A.fumigatus

<400> 31401

```
Leu Ala Cys Asp Asp Phe Pro Ile Leu Thr Cys Leu Lys Arg Arg Thr
1               5                   10                  15
His Ala Asn Val Pro Glu Thr Pro Ala Gly Val Leu Glu Asn Val Arg
            20                  25                  30
Asn Lys Leu Arg Gly Leu Leu Pro Gly Glu Ser Val Pro Leu Ser Val
        35                  40                  45
Asp Gly His Val Asp Glu Leu Ile Thr Gln Ala Thr Asp Lys Arg Asn
    50                  55                  60
Leu Thr Ala Met Tyr Ile Gly Trp Cys Ala Phe Phe
65                  70                  75
```

<210> 31402
<211> 137
<212> PRT
<213> A.fumigatus

<400> 31402

```
Arg Arg Asp Pro Arg Leu Ser Val Pro Ser Ala Ser Cys Leu Phe His
1               5                   10                  15
Val Met Ser Ser Arg Ser Pro Gln Gly Arg Ser Pro Arg Arg Ser Met
            20                  25                  30
His Glu Met Asp Leu Glu Gly Arg Ser Arg Arg Ser Met Ser Pro Arg
        35                  40                  45
Gly Gly Pro Arg Ser Val Ser Arg Ser Pro Ser Ala Gln Tyr Asp Asn
    50                  55                  60
Gly Arg Arg Asn Lys His Arg Ser Arg Ser Trp Ser Arg Ser Pro Ser
65                  70                  75                  80
Arg Ser Arg Thr Ser Ser Leu Ser Arg Ser Arg Ser Pro Ser Arg Asp
```

```
                85                  90                  95
Ser Arg Trp Tyr Arg Asn Arg Ser Tyr Ser Arg Thr Pro Ser Pro Ser
            100                 105                 110
Ser Gly Pro Pro Arg Ser Ser Lys Val Cys Ser Tyr Ser Thr Tyr Leu
        115                 120                 125
Phe His Leu His Leu Ser Lys Ser Tyr
    130                 135
```

<210> 31403
<211> 72
<212> PRT
<213> A.fumigatus

<400> 31403

```
Leu Ser Gly Gln Lys Ala Ser Glu Phe Ile Ala Asn Ile Leu Glu His
1               5                   10                  15
Pro Ser Gly Gly Leu Trp Asn Ile Cys Met Gly Ala Thr Leu Glu Thr
            20                  25                  30
Arg Gln Tyr Arg Lys Ile Ile Ala Gly Glu Leu Leu Thr Phe Phe Pro
        35                  40                  45
Asn Glu Ile Cys Gly Trp Ile Met Gln Glu Ser Leu Gln His Val Phe
    50                  55                  60
Thr Thr Gly Trp Lys Ile Arg Val
65                  70
```

<210> 31404
<211> 82
<212> PRT
<213> A.fumigatus

<400> 31404

```
Val Lys Leu Thr Ile Met Leu Cys Arg Arg His Phe Leu Gln Ala Gly
1               5                   10                  15
Leu Pro Val Ser Phe Tyr Ser Phe Arg Leu Ile Cys Gly Asp Val Trp
            20                  25                  30
Leu Thr Ala Ala Asp Gly Phe Ser Ala Leu Phe Trp Leu Tyr Leu Asn
        35                  40                  45
Lys Gly Arg Phe Phe Ser Thr Pro Met Lys Thr Ala Leu Thr Ile Leu
    50                  55                  60
Asn Val Val Ile Met Gly Val Ala Cys Cys Ile Val Ser Pro Cys Trp
65                  70                  75                  80
Thr Phe
```

<210> 31405
<211> 165
<212> PRT
<213> A.fumigatus

<400> 31405

```
Leu Ile Lys Ser Ser His Gly Cys Arg Asp Ser Ile Ala Gly Tyr Ser
1               5                   10                  15
Leu Pro Pro Ser Gly Cys Ser Arg Leu Arg Pro Cys Pro Val Ser Gln
            20                  25                  30
Ser Ile Pro Ser Ala Asp Asn Ser Asn Glu Pro Arg Ala Ile Ile Leu
        35                  40                  45
```

```
Leu Val Ala Leu Gly Leu Met Ser Thr Tyr Thr Gly Tyr Thr Ile Gly
    50                  55                  60
Gln Phe Lys Trp Ala Tyr Pro His Ile His Ser Met Gly Asp Ala Gly
65                  70                  75                  80
Glu Val Ile Met Gly Arg Phe Gly Arg Glu Leu Phe Gly Thr Gly Gln
                85                  90                  95
Leu Leu Leu Val Val Phe Ile Met Ala Ser His Ile Leu Thr Phe Thr
            100                 105                 110
Val Ala Met Asn Ser Ile Thr Asp His Gly Thr Cys Ser Ile Val Phe
        115                 120                 125
Gly Val Val Gly Leu Val Ile Ser Phe Val Leu Cys Leu Pro Arg Thr
    130                 135                 140
Leu Ala Lys Val Ser Phe Leu Ser Val Ala Cys Ala Cys Phe Ser Asp
145                 150                 155                 160
Asp Val Glu Cys His
                165
```

<210> 31406
<211> 151
<212> PRT
<213> A.fumigatus

<400> 31406

```
His Leu Ala Ala Phe Ile Ser Val Phe Ser Ala Val Leu Ile Val Met
1               5                   10                  15
Ile Ala Val Gly Val Gln Arg Pro Trp His Gly Gly Leu Asn Ala Thr
            20                  25                  30
Val Asp Thr Asn Leu Tyr Lys Ala Phe Leu Ala Val Cys Asn Ile Val
        35                  40                  45
Phe Ser Phe Cys Arg Leu Phe Leu His Phe Ser Ser Phe Met Asp Arg
    50                  55                  60
Thr Asn Lys Thr Ala Gly His Val Ala Phe Phe Gly Phe Met Ala Glu
65                  70                  75                  80
Leu Arg Asn Pro Arg Asp Tyr Pro Lys Ser Leu Phe Leu Leu Gln Gly
                85                  90                  95
Ile Asp Thr Cys Leu Tyr Ile Ile Ala Ala Val Val Ile Tyr Cys Tyr
            100                 105                 110
Ala Gly Asp Asp Val Thr Ser Pro Ala Leu Gly Ser Ala Ser Thr Ile
        115                 120                 125
Val Lys Lys Val Ala Tyr Gly Ile Ala Leu Pro Thr Val Ser Leu Trp
    130                 135                 140
Ser Ser Ser Gln Glu Ala Ile
145                 150
```

<210> 31407
<211> 143
<212> PRT
<213> A.fumigatus

<400> 31407

```
Pro Glu His Pro Gly Gly Gln Lys Ile Ile Leu Lys Tyr Ala Gly Lys
1               5                   10                  15
Asp Ala Thr Glu Glu Phe Asp Pro Ile His Pro Arg Asp Thr Leu Asp
            20                  25                  30
Lys Tyr Leu Asp Arg Ser Lys His Leu Gly Glu Val Asp Met Ala Thr
        35                  40                  45
```

```
Val Glu Gln Glu Glu Lys Ala His Asp Pro Asp Glu Thr Glu Arg Gln
    50                  55                  60
Glu Arg Ile Lys Gln Met Pro Pro Leu Gln Ala Cys Tyr Asn Leu Met
65                  70                  75                  80
Asp Phe Glu Thr Val Ala Arg Ser Val Met Lys Lys Thr Ala Trp Ala
                85                  90                  95
Tyr Tyr Ser Ser Gly Ala Asp Asp Glu Ile Val Arg Gly Leu Thr Cys
            100                 105                 110
Trp Lys Pro Asp Lys Ser Val Ser Leu Thr Ser Ser Arg Leu Cys Ala
        115                 120                 125
Arg Thr Thr Met Pro Ser Thr Arg Phe Gly Ser Val His Glu Tyr
    130                 135                 140
```

<210> 31408
<211> 93
<212> PRT
<213> A.fumigatus

<400> 31408

```
Ala Leu Asn Val Gly Leu Val Arg Ile Ser Lys Arg Ser Ser Ile Val
1               5                   10                  15
Ala Phe Asn Pro His Lys Asn Arg Ser Ile Val Pro Gly Ser Phe Ser
            20                  25                  30
Arg Leu Phe Ser Phe Val Pro Asp Ser Phe Pro Phe Asn Arg Gln Lys
        35                  40                  45
Ile Val Val Thr Met Lys Gln Gly Lys Leu Thr Gly Ala Glu Val Ala
    50                  55                  60
Lys His Ser Ser Lys Asp Ser Cys Trp Val Ile Val His Gly Lys Ala
65                  70                  75                  80
Tyr Asp Val Thr Glu Phe Leu Pro Gly Thr Val Ser Val
                85                  90
```

<210> 31409
<211> 359
<212> PRT
<213> A.fumigatus

<400> 31409

```
Thr Met Arg Glu Asn His Tyr Ala Phe His Lys Ile Trp Phe Arg Pro
1               5                   10                  15
Arg Val Leu Val Asn Val Glu Asn Val Asp Phe Ser Thr Thr Met Leu
            20                  25                  30
Gly Thr Lys Val Ser Val Pro Phe Tyr Val Thr Ala Thr Ala Leu Gly
        35                  40                  45
Lys Leu Gly Asn Pro Glu Gly Glu Val Val Leu Thr Arg Ala Ala Tyr
    50                  55                  60
Lys His Asn Val Ile Gln Met Ile Pro Thr Leu Ala Ser Cys Ser Phe
65                  70                  75                  80
Asp Glu Ile Val Asp Ala Lys Gln Gly Asp Gln Val Gln Trp Leu Gln
                85                  90                  95
Leu Tyr Val Asn Lys Asp Arg Asn Ile Thr Lys Arg Ile Val Gln His
            100                 105                 110
Ala Glu Ala Arg Gly Cys Lys Gly Leu Phe Ile Thr Val Asp Ala Pro
        115                 120                 125
Gln Leu Gly Arg Arg Glu Lys Asp Met Arg Ser Lys Phe Ser Asp Val
    130                 135                 140
```

```
Gly Ala Ser Val Gln Ala Ser Gly Gly Asp Glu Val Asp Arg Ser Gln
145                 150                 155                 160
Gly Ala Ala Arg Ala Ile Ser Ser Phe Ile Asp Pro Ser Leu Ser Trp
                165                 170                 175
Lys Asp Ile Pro Trp Phe Gln Ser Ile Thr Lys Met Pro Ile Ile Leu
            180                 185                 190
Lys Gly Val Gln Cys Val Glu Asp Val Leu Arg Ala Val Glu Met Gly
        195                 200                 205
Val Asp Gly Val Val Leu Ser Asn His Gly Gly Arg Gln Leu Glu Phe
    210                 215                 220
Ala Arg Ser Ala Ile Glu Val Leu Ala Glu Val Met Pro Ala Leu Arg
225                 230                 235                 240
Glu Arg Gly Trp Glu Asn Lys Ile Glu Val Tyr Ile Asp Gly Gly Val
                245                 250                 255
Arg Arg Ala Thr Asp Ile Leu Lys Ala Leu Cys Leu Gly Ala Lys Gly
            260                 265                 270
Val Gly Ile Gly Arg Pro Phe Leu Phe Ala Met Ser Ala Tyr Gly Gln
        275                 280                 285
Pro Gly Val Glu Arg Ala Met Gln Leu Leu Lys Asp Glu Met Glu Met
    290                 295                 300
Asn Met Arg Leu Ile Gly Val Ser Lys Ile Glu Glu Leu Asn Pro Ser
305                 310                 315                 320
Leu Ile Asp Val Arg Gly Leu Thr Gly Gly His His Ala Pro Val Pro
                325                 330                 335
Ser Asp Thr Leu Thr Leu Gly Ala Tyr Asp Pro Leu His Ala Pro Arg
            340                 345                 350
Phe Ser Glu Lys Ser Lys Leu
        355
```

<210> 31410
<211> 193
<212> PRT
<213> A.fumigatus

<400> 31410

```
Leu Gln Leu Gly Phe Leu Ala Glu Pro Arg Ser Val Gln Arg Ile Val
1                   5                   10                  15
Cys Thr Lys Ser Gln Cys Val Gly Arg His Arg Ser Met Val Ala Ala
            20                  25                  30
Gly Lys Thr Ala Asp Val Asn Gln Ala Arg Val Gln Leu Leu Asp Leu
        35                  40                  45
Ala Asp Thr Asn Gln Ala His Ile His Leu His Phe Ile Leu Glu Glu
    50                  55                  60
Leu His Gly Ala Phe His Ala Gly Leu Ala Ile Arg Gly His Gly Lys
65                  70                  75                  80
Glu Glu Gly Pro Ser Asp Thr Asp Thr Leu Gly Thr Glu Ala Gln Ser
                85                  90                  95
Phe Glu Asp Ile Gly Gly Ala Thr Asp Thr Thr Val Asp Val Asp Leu
            100                 105                 110
Asn Leu Val Leu Pro Ala Ala Leu Ala Glu Arg Arg His Asn Leu Gly
        115                 120                 125
Gln Asp Phe Asp Gly Arg Ala Gly Glu Leu Glu Leu Ala Thr Thr Val
    130                 135                 140
Val Gly Glu Asp Asp Thr Ile His Ala His Leu His Gly Thr Gln Asp
145                 150                 155                 160
Ile Leu His Ala Leu Tyr Ser Leu Glu Asp Asp Gly His Leu Gly Asn
```

```
                165                 170                 175
Gly Leu Glu Pro Trp Asp Ile Leu Pro Gly Lys Arg Arg Ile Asp Glu
            180                 185                 190
Arg
```

<210> 31411
<211> 279
<212> PRT
<213> A.fumigatus

<400> 31411

```
Pro Ala Val Glu Gly Leu Gln Arg Met His His Pro His Lys Val Val
1               5                   10                  15
Ile Trp Gly Asn His Asp Arg Cys Phe Asp Ile Arg Ser Arg Arg Asp
            20                  25                  30
Glu Asp Arg Asp Ala Ser Ser Ser Ser Phe Val Ala Ile Ser Ser Ser
        35                  40                  45
Thr Ala Ser Ile Arg Ser Leu Asp Asp Asp Pro Asp Gly Leu Asn Arg
    50                  55                  60
Ile Asn Trp Gly Asp Ile His Tyr Leu Gln His Ser Ser Ile Thr Leu
65                  70                  75                  80
Ser Phe Pro Pro Pro Ser Pro Ala His Ala Ala Ala Arg Pro Arg Ser
                85                  90                  95
Leu Thr Ile Tyr Gly Ala Pro Gln Val Pro Ala Ile Val Pro Phe Thr
            100                 105                 110
Ser Glu His Ala Phe Thr Tyr His Pro Gln His Asp Ala Trp Ser Gly
        115                 120                 125
Thr Ile Pro Pro Asp Thr Asp Ile Leu Ile Thr His Thr Pro Pro Gln
    130                 135                 140
Ala His Leu Asp Leu Ser Pro Val Tyr Ser Thr Gly Cys Pro Phe Leu
145                 150                 155                 160
Leu Ala Glu Thr Trp Arg Val Arg Pro Ala Leu His Val Phe Gly His
                165                 170                 175
Val His Glu Ala Tyr Gly Cys Glu Pro Val Tyr Trp Asp Glu Ala Gln
            180                 185                 190
Arg Ala Trp Glu Arg Leu Cys Ala Ser Arg Arg Pro Arg Ala Arg Tyr
        195                 200                 205
Gly Arg Leu Met Ser Val Phe Gly Leu Leu Arg Asp Leu Phe Asp Val
    210                 215                 220
His Gly Trp Leu Asp Ala Met Arg Val Val Thr Tyr Gly Val Leu Gly
225                 230                 235                 240
Val Val Trp Ala Lys Val Trp Gly Gly Glu Asn Arg Gly Cys Gly Trp
                245                 250                 255
Met Val Asn Ala Ala Cys Met Tyr Arg Asn Thr Gly Arg Leu Gly Asn
            260                 265                 270
Lys Pro Gln Val Val Val Leu
        275
```

<210> 31412
<211> 90
<212> PRT
<213> A.fumigatus

<400> 31412

```
Thr Ser Ile Leu Phe Ser Gln Pro Arg Ser Arg Ser Ala Gly Ile Thr
```

```
1               5                   10                  15
Ser Ala Arg Thr Ser Met Ala Glu Arg Ala Asn Ser Ser Trp Arg Pro
            20                  25                  30
Pro Trp Leu Glu Arg Thr Thr Pro Ser Thr Pro Ile Ser Thr Ala Arg
        35                  40                  45
Arg Thr Ser Ser Thr His Cys Thr Pro Leu Arg Met Met Gly Ile Leu
    50                  55                  60
Val Met Asp Trp Asn His Gly Ile Ser Phe Gln Glu Arg Glu Gly Ser
65                  70                  75                  80
Met Asn Asp Glu Ile Ala Arg Ala Ala Pro
                85                  90
```

<210> 31413
<211> 312
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (306)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31413

```
Asp Pro Ala Glu Leu Asp Gln Ile Thr Thr Leu Pro Asn Gly Ile Arg
1               5                   10                  15
Val Ala Thr Glu Ser Leu Pro Gly Pro Phe Ala Gly Val Gly Val Tyr
            20                  25                  30
Val Asp Ala Gly Ser Arg Tyr Glu Asp Glu Ser Leu Arg Gly Val Ser
        35                  40                  45
His Ile Met Asp Arg Leu Ala Phe Lys Ser Thr Lys Ser Arg Thr Ser
    50                  55                  60
Asp Glu Met Leu Glu Thr Leu Glu Ser Leu Gly Gly Asn Ile Gln Cys
65                  70                  75                  80
Ala Ser Ser Arg Glu Ser Leu Met Tyr Gln Ser Ala Ser Phe Asn Ser
                85                  90                  95
Ala Val Pro Ala Thr Leu Gly Leu Leu Ala Glu Thr Ile Arg Asp Pro
            100                 105                 110
Leu Ile Thr Asp Glu Glu Val Leu Gln Gln Leu Ala Thr Ala Glu Tyr
        115                 120                 125
Glu Ile Asn Glu Ile Trp Ala Lys Pro Glu Leu Ile Leu Pro Glu Leu
    130                 135                 140
Val His Met Ala Ala Tyr Lys Asp Asn Thr Leu Gly Asn Pro Leu Leu
145                 150                 155                 160
Cys Pro Arg Glu Arg Leu Glu Glu Ile Asn Lys Ala Val Val Glu Arg
                165                 170                 175
Tyr Arg Glu Val Phe Phe Lys Pro Glu Arg Met Val Val Ala Phe Ala
            180                 185                 190
Gly Val Pro His Glu Glu Ala Val Lys Leu Thr Glu Gln Tyr Phe Gly
        195                 200                 205
Asp Met Lys Ala Ala Asn Gln Ala Lys Gly Pro Val Leu Ser Gly Thr
    210                 215                 220
Gly Ile Glu Thr Thr Leu Ser Asp Ser Glu Thr Ala Ala Gln Glu Gly
225                 230                 235                 240
Gln Val Pro Thr Val Pro Gln Phe Thr Pro Ser Ser Thr Ile Thr Thr
                245                 250                 255
Thr Pro Thr Ser Lys Thr Gln Ser Val Leu Ser Arg Leu Pro Phe Leu
```

```
            260                 265                 270
Lys Asn Leu Ser Thr Thr Ala Ser Lys Pro Ala Ser Val Ala Pro Leu
        275                 280                 285
Asp Pro Ser Leu Val Gln Pro Ser Ser Leu Asp Leu Thr Arg Pro Ser
    290                 295                 300
Gln Xaa Thr Arg Arg Asp Gly Ser
305                 310
```

<210> 31414
<211> 126
<212> PRT
<213> A.fumigatus

<400> 31414

```
Arg Ala Ser Leu Glu Leu Ile Ile Gly Val Ile Ser Asn Tyr Asn Tyr
1               5                   10                  15
Ala Ile Ser Val Ala Leu Thr Thr Gly Asn Ile Leu Ala Glu Tyr Ile
            20                  25                  30
Tyr Ile Leu Cys Tyr Val Phe Asp Ser Cys Ala Lys Asp Asn Tyr Leu
        35                  40                  45
Lys Lys Pro Cys Leu Ile Val Ala Asp Lys His Gln Arg Arg Leu Leu
    50                  55                  60
Tyr Arg Thr Ser Tyr Pro Arg His Leu Pro Tyr Asn Ile Tyr Leu Arg
65                  70                  75                  80
Ile Glu Gly Ala Tyr Arg Thr Ala Ala Ile Thr Gln Arg Leu Lys Leu
                85                  90                  95
Gly Leu Leu Leu Gly Thr Tyr Leu Ser Leu Leu His Pro Thr Phe Leu
            100                 105                 110
Asn Leu Asn Tyr Ile Gly Lys Thr Tyr Ile Thr Asn Asn Ile
        115                 120                 125
```

<210> 31415
<211> 68
<212> PRT
<213> A.fumigatus

<400> 31415

```
Asp Ile Tyr Thr Thr Glu Ile Asn Lys Glu Leu Leu Ile Thr Ser Thr
1               5                   10                  15
Leu Lys Arg Ala Lys Val Leu Ile Leu Thr Gly Leu Ala Ser Leu Gly
            20                  25                  30
Lys Tyr Tyr Phe Pro Thr Leu Glu Ile Tyr Asp Leu Val Asn Thr Met
        35                  40                  45
Ser Thr Leu Leu His Ile Asn Phe Thr Lys Leu Leu Glu Thr Trp Gly
    50                  55                  60
Pro Gly Ser Glu
65
```

<210> 31416
<211> 63
<212> PRT
<213> A.fumigatus

<400> 31416

```
Thr Lys Ala Ser Arg Tyr Ala Ser Phe Ala His Phe Asp Gly Leu Met
1               5                   10                  15
```

```
Leu Thr Val Val Tyr Gln Glu Val Asn Ile Gln Asn Met Asn Val Glu
            20                  25                  30
Leu Val Ala Gln Met Phe Lys Asn Tyr Gln Ser Asn Val Leu Phe His
        35                  40                  45
Leu Glu Gly Arg Val Val Leu Pro Leu Arg Arg Leu Gln Pro Cys
    50                  55                  60
```

<210> 31417
<211> 336
<212> PRT
<213> A.fumigatus

<400> 31417

```
Thr Thr Leu Asp Glu Val Ser Lys Cys Leu Phe Gln Lys Glu Cys Ala
1               5                   10                  15
Leu Thr Pro Val Val Met Asn Glu Ile Leu Phe Glu Cys Tyr Ser Ala
            20                  25                  30
Pro Ser Val Ala Tyr Gly Ile Asp Ser Leu Phe Ser Tyr Arg Phe Asn
        35                  40                  45
Lys Gly Thr Asp Gly Leu Ile Ile Ser Ser Ser His Thr Ser Thr His
    50                  55                  60
Val Ile Pro Val Leu Asn Ser Lys Ala Leu Leu Ser Asn Cys Ser Arg
65                  70                  75                  80
Leu Asn Trp Gly Gly Met His Ala Ser Glu Tyr Met Leu Lys Leu Met
                85                  90                  95
Lys Leu Lys Tyr Pro Thr Phe Pro Ala Arg Met Thr Glu Ser Gln Met
            100                 105                 110
Glu Asp Leu Val His Lys His Cys Tyr Val Ser Thr Asp Tyr Asp Arg
        115                 120                 125
Glu Leu Ser Ser Tyr Leu Glu Trp Thr Gly Leu Glu Asp Arg Asp His
    130                 135                 140
Ile Ile Gln Tyr Pro Phe Thr Glu His Val Val Pro Glu Lys Thr Glu
145                 150                 155                 160
Glu Glu Leu Ala Arg Ile Ala Glu Arg Lys Lys Glu Ser Gly Arg Arg
                165                 170                 175
Leu Gln Glu Gln Ala Ala Lys Met Arg Leu Glu Lys Leu Met Lys Lys
            180                 185                 190
Glu Gln Glu Leu Glu Tyr Trp Lys Asp Leu Gln Arg Gly Leu Ala Ser
        195                 200                 205
Glu Thr Lys Lys Glu Ala Arg Arg Ile Leu Asp Ser Glu Asp Leu Lys
    210                 215                 220
Asp Glu Ala His Leu Asp Arg Leu Ile Arg Asp Leu Glu Arg Ser Ile
225                 230                 235                 240
Lys Arg Ser Arg Asn Arg Asp Leu Gly Val Glu Glu Thr Glu Glu Pro
                245                 250                 255
Pro Glu Asp Met Ser Phe Pro Leu Leu Asp Val Pro Asp Glu Glu Leu
            260                 265                 270
Asp Glu Ala Gly Leu Lys Glu Lys Arg His Gln Arg Leu Met Lys Ser
        275                 280                 285
Asn Ile Glu Ala Arg Gln Arg Ala Lys Ala Glu Lys Glu Arg Glu Arg
    290                 295                 300
Ala Arg Lys Glu Glu Glu Glu Arg Leu Asp Arg Glu Lys Arg Glu Asn
305                 310                 315                 320
Asp Phe Glu Asn Trp Val Ala Glu Arg Arg Ala Ala Arg Gln Val Cys
                325                 330                 335
```

<210> 31418
<211> 188
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (186)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31418
Asn Ile Leu Gln Arg Ile Lys Glu Arg Asp Arg Met Lys Ala Asp Leu
1 5 10 15
Gly Asn Arg Lys Ser Leu Ala Ser Gln Met Arg Met Lys Thr Leu Ala
20 25 30
Asn Leu Ala Ala Asp Gly Pro Lys Lys Arg Arg Arg Gly Gly Asp Asp
35 40 45
Asp Asp Phe Gly Ala Asn Asp Glu Asp Trp Gly Val Tyr Arg Thr Val
50 55 60
Ala Thr Gly Glu Gln Ser Asp Glu Glu Glu Glu Glu Asp Leu Gly Glu
65 70 75 80
Met Leu Thr Asn Ile Glu Asn Glu Leu Leu Gln Tyr Asp Pro Glu Phe
85 90 95
Thr Glu Asn His Thr Leu Ala Ala Gln Ser Asp Trp Thr Lys Ser Leu
100 105 110
Val His Val Phe Leu Arg Gly Pro Trp Pro Phe Asp Pro Glu Ser Gln
115 120 125
Arg Glu Ala His Gln Ile His Leu Asn Val Glu Arg Ile Arg Val Pro
130 135 140
Glu Val Val Phe Lys Pro Ser Ile Ala Gly Ile Asp Gln Ala Gly Leu
145 150 155 160
Leu Glu Ile Ala Ala Gly Ile Val Asn Gln Arg Phe Val Phe Thr Thr
165 170 175
Gly Leu Gln Gly Ala Val Asp Phe Asn Xaa Thr Pro
180 185

<210> 31419
<211> 212
<212> PRT
<213> A.fumigatus

<400> 31419
Arg Ser Ser Phe Ser Met Leu Val Ser Ile Ser Pro Arg Ser Ser Ser
1 5 10 15
Ser Ser Ser Ser Leu Cys Ser Pro Val Ala Thr Val Arg Tyr Thr Pro
20 25 30
Gln Ser Ser Ser Leu Ala Pro Lys Ser Ser Ser Ser Pro Pro Leu Leu
35 40 45
Arg Phe Phe Gly Pro Ser Ala Ala Arg Phe Ala Arg Val Phe Ile Arg
50 55 60
Ile Trp Leu Ala Ser Asp Phe Arg Leu Pro Arg Ser Ala Phe Ile Leu
65 70 75 80
Ser Arg Ser Leu Ile Leu Cys Lys Ile Phe Tyr Glu Gln Leu Val Ile
85 90 95
Leu Pro Asn Ser Ser Lys Asn Gln His Thr Cys Arg Ala Ala Leu Arg
100 105 110

```
Ser Ala Thr Gln Phe Ser Lys Ser Phe Ser Arg Phe Ser Arg Ser Ser
        115                 120                 125
Arg Ser Ser Ser Ser Phe Arg Ala Leu Ser Arg Ser Phe Ser Ala Leu
    130                 135                 140
Ala Arg Trp Arg Ala Ser Met Phe Asp Phe Met Ser Arg Trp Trp Arg
145                 150                 155                 160
Phe Ser Phe Lys Pro Ala Ser Ser Ser Ser Ser Ser Gly Thr Ser Ser
                165                 170                 175
Ser Gly Lys Asp Ile Ser Ser Gly Gly Ser Ser Val Ser Ser Thr Pro
            180                 185                 190
Arg Ser Arg Phe Leu Glu Arg Leu Met Asp Arg Ser Arg Ser Arg Ile
        195                 200                 205
Ser Arg Ser Arg
    210
```

<210> 31420
<211> 75
<212> PRT
<213> A.fumigatus

<400> 31420

```
Leu Gly Gly Ala Leu Ala Pro Arg Ser Gln Pro Val Leu Ala Asp Glu
1               5                   10                  15
Val Gln Thr Phe Lys Ala Leu Ile Thr Ile His Lys Val Leu Gln Glu
            20                  25                  30
Gly His Pro Ile Val Val Arg Glu Ala Gln Gln His Val Asn Trp Ile
        35                  40                  45
Asp Ser Leu Met Arg Gly Val Gly Gly Asp Gly Ile Arg Gly Met Arg
    50                  55                  60
Gln Lys Trp Leu Gly Cys Arg Gly Ala Leu Gly
65                  70                  75
```

<210> 31421
<211> 377
<212> PRT
<213> A.fumigatus

<400> 31421

```
Met Leu Thr Leu Leu Ser His Ile Ala Thr Gly Asp Asn Glu Ala Leu
1               5                   10                  15
Glu Pro Leu Arg Gly Arg Tyr Asp Ala Gln His Tyr Arg Leu Val Arg
            20                  25                  30
Phe Tyr Tyr Glu Cys Ser Asn Leu Arg Tyr Leu Thr Ser Leu Ile Thr
        35                  40                  45
Val Pro Lys Leu Pro Gln Asp Pro Pro Ser Leu Leu Ala Glu Asp Glu
    50                  55                  60
Asp Arg Pro Ala Leu Pro Lys Arg Pro Thr Lys Glu Val Glu Lys Gln
65                  70                  75                  80
Pro Ser Pro Pro Pro Lys Pro Val Ala Ala Glu Pro Glu Pro Ile Asn
                85                  90                  95
Asp Phe Trp Thr Asn Glu Ala Lys Arg Gln Gln Glu Glu Phe Glu Ala
            100                 105                 110
Glu Gln Arg Arg Leu Gln Gln Gln Trp Glu Glu Gln Gln Arg Gln Gln
        115                 120                 125
Leu Leu Ala Gln Gln Gln Ala Gln Arg Glu Phe Glu Glu Gln Gln Arg
    130                 135                 140
```

```
Leu Gln Ala Glu Gln Gln Arg Leu Ala Gln Glu Gln Leu Leu Arg Glu
145                 150                 155                 160
Gln Tyr Gln Thr Gln Thr Gln Gly Arg Leu Ala Glu Leu Glu Arg Glu
                165                 170                 175
Asn Leu Asn Ala Arg Ala Gln Tyr Glu Arg Asp Gln Leu Met Leu Gln
            180                 185                 190
Gln Tyr Asp Arg Arg Val Lys Asp Leu Glu Glu Gln Met Ala Gln Leu
        195                 200                 205
Thr Thr Asn Leu Asn Met Gln Asn Ala Ser Lys Asp Glu Gln Ile Arg
    210                 215                 220
Ala Leu Gln Glu Gln Val Asn Thr Trp Arg Ser Lys Tyr Glu Ala Leu
225                 230                 235                 240
Ala Lys Leu Tyr Ser Gln Leu Arg Gln Glu His Leu Asp Leu Leu Gln
                245                 250                 255
Thr Thr Lys Ser Leu Lys Leu Lys Ala Ala Ser Ala Gln Glu Ala Ile
            260                 265                 270
Glu Lys Arg Glu Lys Leu Glu Arg Glu Leu Lys Thr Lys Asn Leu Glu
        275                 280                 285
Leu Ala Asp Met Ile Arg Glu Arg Asp Arg Ala Leu His Asp Arg Asp
    290                 295                 300
Arg Leu Thr Gly Thr Asn Lys Glu Glu Leu Glu Lys Leu Lys Arg Glu
305                 310                 315                 320
Leu Arg Leu Ala Ile Glu Arg Ala Glu Asn Ala Glu Arg Ser Lys Gly
                325                 330                 335
Thr Glu Ile Ser Thr Leu Leu Ser Lys Tyr Asn Arg Glu Met Ala Asp
            340                 345                 350
Leu Glu Glu Ala Leu Arg Val Ser Leu Leu Thr Trp Lys Phe Ser Leu
        355                 360                 365
Thr Ser Leu Leu Thr Leu Leu Pro Glu
    370                 375
```

<210> 31422
<211> 92
<212> PRT
<213> A.fumigatus

<400> 31422

```
Leu Cys Pro Ser Arg Pro Thr Val Met Thr Ser Ala Asp His Cys Ser
1               5                   10                  15
Arg Tyr Glu Thr Ile Thr Asp Leu Met Thr Leu Gln Asp His Ile Asp
            20                  25                  30
Thr Phe Gln Lys Leu Ile Phe Ser His Phe Gln Ser Gly Thr Asn Asn
        35                  40                  45
Glu Cys Arg Ile Ser Ala Leu Val Pro Leu Val Gln Glu Ser Tyr Gly
    50                  55                  60
Ile Tyr Lys Phe Ile Thr Ser Met Leu Arg Ala Met His Thr Ser Lys
65                  70                  75                  80
His Pro Leu Val Arg Ser Arg Met Leu Phe Glu Cys
                85                  90
```

<210> 31423
<211> 134
<212> PRT
<213> A.fumigatus

<400> 31423

```
Leu Ala Pro Ala Lys Arg Glu Ser Val Arg Leu Ser Lys Arg Phe Ala
1               5                  10                  15
Cys Ser Ser Ser Trp Ser Ala Ala Pro Ser Ala Pro Pro Asn Pro Ser
            20                  25                  30
Arg Gly Asp His Ile Ala Ala Ala Ser Ala Gly His Ala Arg Thr Ala
        35                  40                  45
Pro Gly His Ser Gly Phe Pro Val Gln Ala Gln Pro Ile Asp Pro Glu
    50                  55                  60
Ser Gly Ser Asp Thr Ala His Ala Gly Val Val Pro Glu Pro Val Ala
65                  70                  75                  80
Ala Ala Leu Pro Ala Asp Ala Ala Val Pro Gln Thr His Val Ala Pro
                85                  90                  95
Ala Ala Ala Gln Glu Val Ala Asp Ala Ala Val Leu Pro Thr Val Ala
            100                 105                 110
Glu Gly Val Ala Ala Leu Leu Gln Thr Pro Pro Val Asp Ala Ser Pro
        115                 120                 125
Arg Trp Ser Arg Ser Arg
    130
```

<210> 31424
<211> 88
<212> PRT
<213> A.fumigatus

```
<400> 31424
Arg His Met His Lys Ser Ala Glu Cys Ser Pro Ala Ala Lys Pro Phe
1               5                  10                  15
Leu Pro His Thr Ser Asp Pro Ile Pro Ser Asn Ala Pro His Gln Ala
            20                  25                  30
Val Asn Pro Ile Asp Met Leu Leu Arg Phe Ser His His Asn Arg Val
        35                  40                  45
Thr Phe Leu Gln Asn Phe Met Tyr Arg Asn Gln Gly Leu Glu Arg Leu
    50                  55                  60
Asn Phe Val Gly Lys His Arg Leu Thr Thr Arg Ser Gln Ser Ala Thr
65                  70                  75                  80
Lys Ser Val Ile Ile Ser Thr Thr
                85
```

<210> 31425
<211> 73
<212> PRT
<213> A.fumigatus

```
<400> 31425
Ile Thr Leu Asp Ser Leu Lys Lys Trp Asp Gly Gly His Leu Glu Glu
1               5                  10                  15
Lys Asp Ile Asp Trp Ala Thr Pro Ala His Leu Ala Asp Arg Arg Met
            20                  25                  30
Val Phe Val Ala Arg Glu Leu Leu Lys Ala Ala Leu Ala Ile Ala Gln
        35                  40                  45
Asp Pro Phe Ala Glu Ser Pro Tyr Met Glu Lys Ala Ile Glu Glu Gly
    50                  55                  60
Leu Ala Ile Glu Gly Gly Arg Phe Leu
65                  70
```

<210> 31426

<211> 153
<212> PRT
<213> A.fumigatus

<400> 31426
Leu Leu Pro Leu Gln Arg Ala Ser Ile Ile Leu Arg Phe Cys Arg Lys
1 5 10 15
Glu Lys Ala Met Ser Ile Gly Lys Asp Asp Asp Tyr Val Val Ser Tyr
20 25 30
Arg Gly Glu Val Val Glu Asn Arg His Lys Val His Ala Ser Val Val
35 40 45
Asp Ala Thr Gly Lys Gln His Phe His Val Gly Asp Pro Ser Arg Ile
50 55 60
Thr Leu Ala Arg Ser Ala Ala Lys Pro Ala Gln Ala Leu Ala Ile Leu
65 70 75 80
Glu Thr Gly Ala Phe Glu Gln Phe Asp Leu Asp Asp Ala Asp Leu Ala
85 90 95
Leu Met Cys Ala Ser His Ser Ser Glu Glu Arg His Ile Thr Arg Ala
100 105 110
Arg Asn Met Leu Ala Lys Ala Gln Val Lys Glu Asp Asp Leu Arg Cys
115 120 125
Gly Gly His Pro Ala Leu Ser Ala Thr Val Asn Ile Glu Leu Ser Leu
130 135 140
His Pro Gly Ala Gly Arg Asn Arg Val
145 150

<210> 31427
<211> 105
<212> PRT
<213> A.fumigatus

<400> 31427
Leu Thr Tyr Phe Thr Tyr Leu Val Leu Gly Thr Val Ala His Thr Phe
1 5 10 15
Arg Leu Ala Asp Gly Tyr Trp Ile Trp Arg Pro Ala Leu Leu Gln Arg
20 25 30
Lys Thr Asn Cys Trp Ser Tyr Cys Ser Leu Pro Ile Ile Ile Ile Ser
35 40 45
Ser Phe Phe Cys Phe Pro Cys Pro Pro Leu Ser Leu Phe Val Tyr Arg
50 55 60
Ser Leu Arg Gln Ser Thr Ser Thr Arg Pro Pro Thr Ala Ala Ser Ser
65 70 75 80
Thr Ser Glu Cys Asn Leu Ser Leu Leu Leu Thr Thr Ile Thr Ile Thr
85 90 95
His Ser Ser Ala Arg Val Lys Tyr Phe
100 105

<210> 31428
<211> 151
<212> PRT
<213> A.fumigatus

<400> 31428
Ser Arg Gln Val Thr Gly Lys Ala Asn Arg Pro Asp Thr Thr Pro Pro
1 5 10 15
Thr Val Pro Val Arg Lys Pro Glu Phe Leu Pro Ser Arg Glu Thr Ser

```
            20                  25                  30
Lys Leu Arg Ala Thr Trp Leu Gly His Ala Cys Tyr Tyr Val Glu Phe
        35                  40                  45
Pro Asp Gly Leu Arg Val Leu Phe Asp Pro Val Phe Glu Asp Arg Cys
    50                  55                  60
Ser Pro Phe Ser Trp Leu Gly Pro Lys Arg Tyr Thr Glu Val Pro Cys
65                  70                  75                  80
Gln Ile Lys Asp Ile Pro Phe Ile Asp Ala Val Val Ile Ser His Asn
                85                  90                  95
His Tyr Glu His Leu Ser His Pro Thr Val Lys Glu Ile Ala Lys Leu
            100                 105                 110
His Pro Asn Cys His Phe Phe Ala Pro Leu Gly Asn Lys Glu Trp Phe
        115                 120                 125
Ser Ser Ser Gly Ile Lys Tyr Met Thr Glu Met Asp Cys Trp Glu Glu
    130                 135                 140
Cys Asp Val Val Leu Ser Pro
145                 150
```

<210> 31429
<211> 62
<212> PRT
<213> A.fumigatus

<400> 31429

```
Val Leu Leu Phe Arg Arg Val Leu His Thr Pro Arg Leu Arg Gly Lys
1               5                   10                  15
Ile Asn Thr Ala Gln Pro Pro Pro Tyr Ser His Ala Thr Asn Pro Leu
            20                  25                  30
Arg Met Met Gly Ser Val Ser Phe Ala Lys Glu Arg Val Gly Ser Glu
        35                  40                  45
Ile Ala Gly Leu Val Thr Asp Met Gln Val Phe Ala Ser Asp
    50                  55                  60
```

<210> 31430
<211> 131
<212> PRT
<213> A.fumigatus

<400> 31430

```
Leu Gly Ile Val Leu Arg Asp Ile Gly Tyr Arg Ala Val Pro Glu Leu
1               5                   10                  15
Pro Asp Gly Val Asp Asp His Ala Pro Glu Tyr Asp Tyr Leu Ser Cys
            20                  25                  30
Pro Ala Phe Lys Gln Val Gly Glu Phe Arg Gly Pro Phe Asp Leu Gly
        35                  40                  45
Leu Ile Pro Ile Gly Ala Tyr Ala Pro Arg Phe Ile Met Ser Pro Met
    50                  55                  60
His Ala Asp Pro His Asp Ala Val Glu Ile Phe Arg Asp Thr Lys Cys
65                  70                  75                  80
Lys Arg Ala Thr Ala Met His Trp Gly Thr Trp Val Leu Thr Glu Glu
                85                  90                  95
Asp Val Leu Glu Pro Ala Lys Lys Leu Lys Glu Ala Leu Lys Lys His
            100                 105                 110
Ser Ile Pro Glu Glu Gly Val Phe Asp Val Cys Asp Ile Gly Glu Ser
        115                 120                 125
Arg Glu Tyr
```

130

<210> 31431
<211> 89
<212> PRT
<213> A.fumigatus

<400> 31431
Leu Gly Glu Ile Gly Gln Ala Gly Asn Ile Leu Ala Glu Thr Gly Ala
1 5 10 15
Ala Glu Pro Glu Ser Gly Phe Glu Glu Leu Ser Ser Asn Ala Arg Ile
20 25 30
Gln Thr Asp Ser Leu Ser Tyr Leu Val Asp Leu Ser Ser Cys Phe Leu
35 40 45
Ala Asn Ser Thr Asp Arg Val Asp Ala Ala Asp Ser Leu Gly Glu His
50 55 60
Gly Val Gly Tyr Lys Leu Cys Glu Phe Gly Arg Pro Cys Val Asp Leu
65 70 75 80
Glu Asp Ala Arg Arg Gly His Pro Arg
85

<210> 31432
<211> 199
<212> PRT
<213> A.fumigatus

<400> 31432
Arg Thr Ser Ala Leu Trp Ala Leu Asp Thr Ser Val Cys Leu Cys Tyr
1 5 10 15
Ser Val Ser Val Val Gln Ser Leu Ile Val Thr Gly Gly Pro Thr Ala
20 25 30
Ala Val Met Ala Leu His Asn Pro Ser Ile Ser Val Glu Val Leu Asp
35 40 45
Arg Asp Pro Val Arg Ile Arg Gln Trp Asn Ser Pro His Leu Pro Val
50 55 60
His Glu Pro Gly Leu Ile Asp Val Val Arg Val Thr Arg Asp Gly Ala
65 70 75 80
Glu Ile Val Asn Gln Glu Thr Thr Ser Leu Val Ser Ala Thr Arg Leu
85 90 95
Lys Arg Arg Ala Asn Leu Phe Phe Thr Ser Asp Ser Val Thr Ser Ile
100 105 110
Ser Arg Ala Asp Val Ile Met Leu Ala Val Asn Thr Pro Thr Lys Thr
115 120 125
Phe Gly Leu Gly Ala Gly Arg Ala Thr Asn Met Ser Ala Ile Asp Glu
130 135 140
Ala Val Arg Gln Ile Ala Ile Tyr Ala Lys Pro Gly Ala Ile Ile Val
145 150 155 160
Glu Lys Ser Thr Val Pro Cys Gly Thr Ala Gln Arg Ile Arg His Leu
165 170 175
Val Arg Thr Ile Asp Leu Met Cys Leu Leu Phe Ile Asp Arg Lys Val
180 185 190
Thr Ile Tyr Ser Trp Pro Leu
195

<210> 31433
<211> 401

<212> PRT
<213> A.fumigatus

<400> 31433

```
Leu Ala Thr Leu Arg Pro Gly Val Pro Phe Glu Val Leu Ser Asn Pro
1               5                  10                  15
Glu Phe Leu Ser Glu Gly Ser Ala Ile Glu Asn Leu Ile Ser Pro Asp
            20                  25                  30
Arg Val Leu Ile Gly Ser Ser Gly Thr Pro Ser Gly Arg His Ala Ala
        35                  40                  45
Arg Thr Leu Ala Gln Ile Tyr Ser Ser Trp Val Pro Ser Ser Arg Ile
    50                  55                  60
Leu Glu Val Asn Thr Trp Ser Ser Glu Leu Ala Lys Leu Val Ala Asn
65                  70                  75                  80
Ala Met Leu Ala Gln Arg Ile Ser Ser Ile Asn Ser Ile Ser Ala Ile
                85                  90                  95
Cys Glu Lys Thr Gly Ala Glu Val Asp Gln Val Ala Gln Ala Ile Gly
            100                 105                 110
Leu Asp Ala Arg Ile Gly Ala Gln Phe Leu Lys Ala Gly Leu Gly Phe
        115                 120                 125
Gly Gly Ser Cys Phe Arg Lys Asp Ile Ala Ser Leu Thr Tyr Leu Ala
    130                 135                 140
Glu Ser Leu Gly Leu Glu Asp Val Ala His Tyr Trp Ser Gln Val Asn
145                 150                 155                 160
Val Met Asn Glu Met Gln Arg Asp Arg Phe Ala Arg Lys Val Ile Glu
                165                 170                 175
Arg Phe Asp Gly Asn Leu Thr Gly Arg Lys Ile Ala Met Leu Gly Phe
            180                 185                 190
Ala Phe Lys Lys Asn Thr Gly Asp Thr Arg Glu Ser Leu Ala Ala Asp
        195                 200                 205
Val Ile Arg Leu Leu Leu Glu Glu Lys Pro Met Glu Ile Ala Ile Phe
    210                 215                 220
Asp Pro Tyr Cys Leu Glu Lys Asp Ile Met Arg Glu Val Glu Arg Ala
225                 230                 235                 240
Cys Gly Thr Leu Asp Gly Arg Ile Val Lys Val Phe Pro Asp Pro Tyr
                245                 250                 255
Gln Ala Cys Ser Gln Ala Asp Ala Val Leu Ile Ile Ser Asp Cys Asp
            260                 265                 270
Gln Phe Arg Asn Met Pro Thr Arg Ser Lys Pro Asn Pro Phe Ala Ser
        275                 280                 285
Gln Thr Glu Ala Lys Ala Ala Asn Thr Leu Ser Lys Ala Ile Ile Ser
    290                 295                 300
Lys Asp Pro Glu Glu Asp Ile Trp Ser Cys Asn Ser Leu Ser Tyr Arg
305                 310                 315                 320
Leu Ser Pro Gln Lys Pro Cys Asp Asp Cys Glu Val Cys Arg Leu Thr
                325                 330                 335
Val Asn Tyr Pro Thr Ala Thr Glu Pro Val Glu Trp Ala Arg Ile Ala
            340                 345                 350
Tyr Asn Met Lys Ala Pro Lys Leu Val Ile Asp Gly Arg Gly Ile Leu
        355                 360                 365
Asp Val His Glu Met Glu Lys Leu Gly Val His Val Asp Ala Val Gly
    370                 375                 380
Arg Arg Pro Pro Val Ile Ser Thr Gly Ile Asp Pro Leu Asn Cys Asp
385                 390                 395                 400
Ile
```

<210> 31434
<211> 136
<212> PRT
<213> A.fumigatus

<400> 31434
His Ser Thr Ile Glu Gln Ile Lys Arg Leu Gln Gln Asn Gly Asn Val
1 5 10 15
Glu His Glu Phe Phe Ile Phe Trp Leu Pro Arg Arg Thr Phe Val Ser
20 25 30
Asn Lys Ile Leu Glu Asp Ala Gly Ile Ile Gly Asp Val Asn Ile Phe
35 40 45
Glu Phe Pro Leu Tyr Phe Val Pro Leu Glu Gln Asp Val Leu Ser Leu
50 55 60
Glu Leu Asp Asp Ser Phe Gly Asp Leu Tyr Leu Val Arg Thr Arg Asn
65 70 75 80
Ile Val Ser Leu Gln Pro Ile Cys Leu Ser Ser Arg Ser Ile Lys Ile
85 90 95
Gln Val Val Ser Ser Ser Pro Gln Arg Leu Ser Trp Ile Phe Ser Lys
100 105 110
Asp Met Val Ile Phe Leu Glu Ser Leu Gly Arg Glu Ile Thr Arg Ala
115 120 125
Asp Ser Gln Thr Phe Cys Cys Gly
130 135

<210> 31435
<211> 311
<212> PRT
<213> A.fumigatus

<400> 31435
Ser Leu Leu Gly Lys Asn Gln Lys Tyr Cys Leu Thr Ala Thr His Leu
1 5 10 15
Leu Ile Ile Thr Gln His Lys Asp Pro Gly Cys Ile Phe Leu Ala Ala
20 25 30
Lys Ala Leu Met Asp Ile Gln Gln Arg His Gly Tyr Phe Pro Arg Ile
35 40 45
Ile Gly Lys Gly Asp His Ala Arg Arg Leu Ala Asp Leu Leu Leu Arg
50 55 60
Met Arg Lys Glu Leu Asp Ala Glu Glu Ser Ser Gly Leu Arg Gly Pro
65 70 75 80
Ser Ala Arg Gly Leu Leu Pro Ser Ala Ser Thr Glu Ser Leu Ile Ile
85 90 95
Ile Asp Arg Met Val Asp Phe Gly Thr Pro Leu Leu Thr Gln Leu Thr
100 105 110
Tyr Glu Gly Leu Ile Asp Glu Phe Val Gly Ile Lys Asn Asn Gln Ala
115 120 125
Asp Val Asp Thr Ala Ile Val Gly Ala Asn Ser Val Pro Gln Ala Gln
130 135 140
Glu Ser Ser Lys Ala Pro Gln Gln Thr Leu Lys Gln Gly Gln Lys Arg
145 150 155 160
Lys Ile Gln Leu Asp Ser Ser Asp Gln Leu Phe Ser Gln Val Arg Asp
165 170 175
Ala Asn Phe Ala Ile Val Gly Asp Ile Leu Asn Lys Val Ala Arg Arg
180 185 190

```
Leu Glu Ser Glu Tyr Glu Thr Arg His Ala Ala Lys Thr Ala Ser Glu
        195                 200                 205
Leu Arg Glu Phe Val Asn Lys Leu Pro Ala Tyr Gln Leu Glu His Gln
    210                 215                 220
Ser Leu Arg Val His Thr Asn Leu Ala Gln Glu Ile Met Arg Asn Thr
225                 230                 235                 240
Arg Ser Asp Ile Phe Arg Lys Val Leu Glu Val Gln Gln Asn Asn Ala
                245                 250                 255
Ala Gly Thr Asp Pro Thr Tyr Gln His Asp Thr Ile Glu Glu Leu Ile
            260                 265                 270
Ala Arg Asp Val Pro Leu Lys Thr Val Leu Arg Leu Leu Cys Leu Glu
        275                 280                 285
Ser Cys Met Ser Gly Gly Leu Arg Ser Arg Asp Leu Glu Asn Phe Lys
    290                 295                 300
Lys Gln Ile Val His Ala Tyr
305                 310
```

<210> 31436
<211> 159
<212> PRT
<213> A.fumigatus

<400> 31436

```
His Gln His Ile Leu Thr Phe Ser Ala Leu Glu Lys Met Glu Leu Leu
1               5                   10                  15
Gln Pro Arg Ser Ser Asp Ala Thr Met Leu Ile Gln Thr Ala Gly Ala
            20                  25                  30
Gln Pro Gly Ser Lys Thr Asn Tyr Asn Tyr Leu Arg Lys Asn Leu Arg
        35                  40                  45
Val Leu Val Glu Glu Val Ser Glu Lys Asp Pro Asn Asp Ile Ala Tyr
    50                  55                  60
Val Tyr Ser Gly Phe Ala Pro Leu Ser Ile Ser Leu Val Leu Cys Val
65                  70                  75                  80
Leu Gln Lys Pro Tyr Ile Phe Ser Leu Val Lys Gly Gly Ala Ala Ser
                85                  90                  95
Ala Thr Ser Thr Pro Ala Ser Thr Ala Ser Pro Gly Trp Leu Gly Phe
            100                 105                 110
Glu Asp Val Val Lys Ser Ala Arg Gly Ala Thr Phe Ser Ile Val Gln
        115                 120                 125
Lys Gly Asp Asp Lys Ala Val Arg Ala Arg Gln Thr Leu Ser Gly Asn
    130                 135                 140
Asn Ala Thr Lys Ile Val Tyr Val Phe Phe Leu Gly Gly Ala Cys
145                 150                 155
```

<210> 31437
<211> 272
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (201)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31437

```
Met Ile Tyr Trp Tyr Ile Asn Leu Gln Thr Pro Thr Ala Thr Ser Leu
```

```
1               5                   10                  15
Thr Ile Arg Tyr Leu Val Leu Ser Thr Asn Asn Asp Glu Met Pro Ser
            20                  25                  30
Ile Lys Asn Ser Thr Ile Val Ile Phe Gly Gly Ser Ser Gly Ile Gly
        35                  40                  45
Tyr Gly Val Ala Asp Lys Cys Leu Ser Glu Gly Ala Val Val His Ile
    50                  55                  60
Ser Ser Ser Asn Pro Thr Arg Ile Thr Gln Ala Val Ser Ser Leu Lys
65                  70                  75                  80
Glu Lys Tyr Pro Glu Gly Gln Val Thr Gly His Thr Cys Asp Leu Ser
                85                  90                  95
Leu Pro Asp Val Glu Gln Gly Leu Val Lys Leu Phe Glu Glu Ile Ala
            100                 105                 110
Ser Cys Asp His Ile Val Tyr Thr Ala Gly Asp Ala Leu Ala Val Arg
        115                 120                 125
Pro Leu Lys Asp Leu Asp Leu Gln Phe Ile Gln Lys Ala Gly His Ile
    130                 135                 140
Arg Phe Asp Val Pro Leu Leu Val Ala Lys Leu Ala Leu Arg Val Leu
145                 150                 155                 160
Lys Pro Gly Tyr Thr Ser Ser Leu Ile Leu Thr Gly Gly Ala Val Gly
                165                 170                 175
Asp Arg Pro Gln Pro Asp Trp Ala Val Val Ala Gly Tyr Ala Ala Gly
            180                 185                 190
Leu Tyr Gly Met Val Arg Gly Leu Xaa Leu Asp Met Lys Pro Leu Arg
        195                 200                 205
Val Asn Phe Val Ser Pro Gly Pro Val Lys Thr Gly Leu Phe Thr Asp
    210                 215                 220
Glu Leu Ala Glu Met Phe Ala Lys Lys Thr Thr Leu Gly Lys Val Gly
225                 230                 235                 240
Ser Val Lys Glu Ala Ala Glu Ala Tyr Val Tyr Leu Met Lys Asp Thr
                245                 250                 255
Asn Ala Thr Gly Ile Cys Val Ser Thr Asn Ala Gly Ser Leu Leu Val
            260                 265                 270
```

<210> 31438
<211> 143
<212> PRT
<213> A.fumigatus

<400> 31438

```
Arg Asp Phe Gly Pro Asp Lys Tyr His Leu Ile Pro Pro His Gly Arg
1               5                   10                  15
Trp Gln His Phe Glu Val Gly Gly Val Ser Arg Pro Glu Ser Leu Leu
            20                  25                  30
Lys Gln Trp Lys Ser Asp Gly Ala Asn Pro Leu Glu Gln Thr Arg Gly
        35                  40                  45
Leu Leu Asp Leu Phe Phe Val Ser Val Leu Leu Asp Ala Gly Ala Gly
    50                  55                  60
Asp Arg Trp Arg Phe Thr Glu Pro Asp Thr Asp Ile Val Val Gly Arg
65                  70                  75                  80
Ser Glu Gly Thr Ala Leu Ala Ser Tyr Asn Met Phe Val Asn Gly Asp
                85                  90                  95
Phe Ser Thr Val Asp Ser Glu Arg Arg Asp Val Val Met Gly Ser Ser
            100                 105                 110
His Thr Leu Pro Ser Asp Lys Ser Arg Thr Lys Tyr Gln Gln Gly Lys
        115                 120                 125
```

```
Pro Ser Arg Thr Leu Thr Leu Gln Leu Cys Asn Ala Val Ser Arg
    130                 135                 140

<210> 31439
<211> 69
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (45),(47),(53),(56),(58)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31439
Thr Arg Ile Glu Lys Arg Ala Leu Pro Ile Thr Gly Lys Gly Phe Pro
1               5                  10                  15
Glu Ala Ser Tyr Arg Lys Ile Ala Val Tyr Thr Leu Met Gln Gly Leu
            20                  25                  30
Phe His His Ser Ser Arg Ile Pro Arg Ser Gly Ser Xaa Pro Xaa Val
        35                  40                  45
Arg Gly Leu Ala Xaa Thr Ala Xaa Lys Xaa Tyr Pro Ser Asn Gly Lys
    50                  55                  60
Thr Pro Lys Leu Leu
65

<210> 31440
<211> 62
<212> PRT
<213> A.fumigatus

<400> 31440
Pro Ala Asn His Pro Arg Ser Glu Thr Leu Gln Phe Ala Pro Gln Pro
1               5                  10                  15
Ala Thr Asp Phe His Val Arg Phe Pro Lys Asp Tyr Leu Asp Gly Asn
            20                  25                  30
Gly Pro Asn Ser Ile Gly Phe Glu Tyr Ala Leu Cys His Glu Arg Thr
        35                  40                  45
Tyr Gly Phe Arg Ser Ser Ser Arg His Thr Ser Gly Pro Tyr
    50                  55                  60

<210> 31441
<211> 96
<212> PRT
<213> A.fumigatus

<400> 31441
Ser Leu Leu Ala Arg Glu Arg Thr Ser Val Pro Arg Gly Val Tyr Met
1               5                  10                  15
Ala Thr Leu Ser Gly Cys Phe Ser Cys Arg Thr Phe Arg Asp Arg Gln
            20                  25                  30
Leu Leu Leu His Lys Gly Ala Asp Ile Asn Ser Ser Gly Ser Glu Tyr
        35                  40                  45
Asp Asn Ala Val Tyr Ala Ala Ser Ala Arg Gly His Gln Glu Thr Val
    50                  55                  60
Gln Leu Leu Val Glu Asn Gly Ala Glu Val Asn Gly Gln Gly Glu Lys
65                  70                  75                  80
```

Tyr Asp Asn Ala Phe Gln Ala Ala Ser Asp Arg Pro Ser Arg Glu Cys
85 90 95

<210> 31442
<211> 446
<212> PRT
<213> A.fumigatus

<400> 31442
Thr Leu Ser Ala Asp Pro Ser Ser Pro Val Gly Glu Glu His His His
1 5 10 15
Leu Pro Phe Leu His Gln Glu Ser Phe Lys Pro Thr Met Ala Ser Pro
20 25 30
Pro Leu Leu Leu Ala Val Leu Ser Ile Gly Ala Leu Tyr Thr Phe Glu
35 40 45
Arg Glu His Ala Phe Met Leu His Val Gly Ser Lys Met Leu Val Asn
50 55 60
Gln Phe Leu Gln His Lys Glu Asn Phe Asp Ser Arg Lys Cys Pro Leu
65 70 75 80
Trp Ser Met Gln Ser Thr Leu Leu Asn Met Ile Phe Glu Ser Trp Ser
85 90 95
Gly Asp Pro Lys Gly Leu Glu Trp Thr Cys Ser Ile Lys Ser Leu Leu
100 105 110
Ala Asn Met Val Ala Gly Asn Arg Tyr Gln Leu Lys Val Arg Thr Glu
115 120 125
Ala Arg Glu Gly Arg Gln Pro Thr Arg Asp Glu Trp Ile Glu Asp Glu
130 135 140
Ser Cys Arg Arg Thr Tyr Tyr Ala Val Tyr Ile Phe Phe Gly Met Leu
145 150 155 160
Thr Leu Thr Phe Asn His Thr Pro Ala Met Ser Phe Asp Glu Phe Asp
165 170 175
Asn Leu Glu Leu Pro Ser Ser Glu Ser Met Trp Asn Leu Asp Val Asn
180 185 190
Asp Asp Glu Ala Trp Arg Arg Ser Leu Ser Ser Ala Ser Thr Leu Thr
195 200 205
Val Arg Glu Ala His Asp Cys Leu Phe Gln Gly Glu Arg Thr Arg Tyr
210 215 220
Ser Ala Phe Ala Thr Arg Val Leu Ile Asn Ala Leu Phe Leu Gln Val
225 230 235 240
Trp Asn His Lys Arg Thr Phe Glu Ala Leu Gln Asp Val Val Thr Glu
245 250 255
Tyr Lys Leu Arg Leu Ala Leu Glu Thr Trp Glu Ser Ser Leu Glu Val
260 265 270
Cys Glu Pro Glu Thr Ile Val Val Pro Leu Ser Thr Pro Gln Asn Gly
275 280 285
His Pro Leu Ile Phe Asn Ser Met Ala Val Tyr Arg Asn Thr Arg Ala
290 295 300
Arg Leu Glu Val Asp Leu Lys Ser Ile Gln Glu Ala Leu Arg Tyr His
305 310 315 320
Ser Ser Tyr Glu Val Ala Ala Ala Met Thr Val Ala Arg Glu Lys Val
325 330 335
Lys Arg Ser Gly Glu Met Asn Lys Val Ile Gln Ser Cys Phe Glu Cys
340 345 350
Ile Glu Ile Ala Ala Val Gln Gly Ile Asn Trp Val Ala Lys Thr Ser
355 360 365
Ala Thr Asn Trp Ser Val Glu His Pro Leu Cys Gly Leu Asp Leu Met

```
    370                 375                 380
Val Ile Leu Ser Leu Trp Leu Tyr Arg Leu Glu His Asp Glu Glu Pro
385                 390                 395                 400
Ala Thr Glu Ala Glu Leu Ala Ile Tyr Asn Lys Val Arg Asn Leu Phe
                405                 410                 415
Asp Asp Asp Ala Val Asp Ala Phe Gly Lys Leu Ser Ser Thr Val Ala
            420                 425                 430
Arg Val Trp Gly Asn Ile Leu Asp Gly Val Val Val Trp Gly
        435                 440                 445
```

<210> 31443
<211> 74
<212> PRT
<213> A.fumigatus

<400> 31443

```
Val Ser Leu Tyr Pro Ser Arg Ile Ala Arg Leu Lys Lys Gln Met Glu
1               5                   10                  15
Arg Lys Gly Arg Ala Ser Leu His Tyr Ala Ala Glu Asp Gly His Trp
            20                  25                  30
Glu Ala Val Lys Leu Leu Ser Lys His Asp Cys Val Ser Val Gln Ala
        35                  40                  45
Arg Asp Asn Ser Ser Arg Arg Asp Met Asp Leu Ala Leu Asp Asn Asp
    50                  55                  60
Phe Tyr Asp Val Phe Lys Ala Leu Gln Asp
65                  70
```

<210> 31444
<211> 82
<212> PRT
<213> A.fumigatus

<400> 31444

```
Asn Leu Pro Ser Ser Gly Leu Val Ser Gly Val Asn Met Phe Phe Phe
1               5                   10                  15
His Gly Ser Arg Ser Lys Pro Ser Thr Thr Thr Ser Pro Cys Gly Ser
            20                  25                  30
Pro Met Ala Leu Ser Phe Leu Phe Ile Ile Phe Phe Glu Ile Gln Pro
        35                  40                  45
Leu Phe Thr Arg Ile Val Leu Ser Pro Ser Pro Leu Ser Ser Gly Val
    50                  55                  60
Thr Thr Met Lys Pro Ser Trp Pro Ser Arg Met Arg Gly Pro Ile Asn
65                  70                  75                  80
Ile Ser
```

<210> 31445
<211> 106
<212> PRT
<213> A.fumigatus

<400> 31445

```
Ala Thr Ile Pro Gly Ser Gln Lys Arg Glu Asp Ile Lys Thr Val Met
1               5                   10                  15
Phe Tyr Ser Gly Gly Leu Gln Glu Gly Ile Ser Leu Ala Val Thr Glu
            20                  25                  30
```

```
Arg Lys Ala Val Val Cys Phe Val Arg Gly Leu Ser Val Ile Pro Arg
        35                  40                  45
Thr Ile Thr Tyr Asp Ala Thr Ile Thr Gln Ser Arg Met Leu Ile Asp
    50                  55                  60
Gly Glu Ser Val Asp Asp Glu Glu Asn Ser Asn Ile Trp Glu Glu Glu
65                  70                  75                  80
Tyr Phe Lys Asp Asp Glu Val Asn Pro Ser Met Met Ala Ile Ala Val
                85                  90                  95
Val Trp Leu Leu Thr Pro Met Pro Ser Thr
            100                 105
```

<210> 31446
<211> 235
<212> PRT
<213> A.fumigatus

<400> 31446

```
Pro Pro Cys Ala Asp Cys Thr His Gly Thr Gln Ala Trp Ala Trp Pro
1               5                   10                  15
Asn Asn Ser Arg Tyr Ser Ala Pro His Thr Ala Arg Asp Val Ser Gly
            20                  25                  30
Ser Ile Phe Val Asn Lys Ser Leu Leu Thr Asn Tyr Asn Trp Pro Asp
        35                  40                  45
Ala Ala Leu Ile Pro Val Thr Ala Phe Ile Leu Gly Thr Trp Gln Val
    50                  55                  60
Gln Arg Leu Asp Trp Lys Thr Lys Leu Ile Ala Lys Phe Glu Asp Arg
65                  70                  75                  80
Leu Leu Lys Pro Pro Leu Pro Leu Pro Pro Arg Ile Asp Pro Thr Ala
                85                  90                  95
Ile Ser Glu Phe Asp Tyr Arg Arg Val Tyr Ala Thr Gly His Phe Arg
            100                 105                 110
His Asp Gln Glu Met Leu Ile Gly Pro Arg Met Arg Glu Gly Gln Glu
        115                 120                 125
Gly Phe Ile Val Val Thr Pro Leu Glu Arg Gly Glu Gly Glu Ser Thr
    130                 135                 140
Ile Leu Val Asn Arg Gly Trp Ile Ser Lys Lys Met Met Asn Lys Lys
145                 150                 155                 160
Asp Arg Ala Ile Gly Leu Pro Gln Gly Glu Val Val Val Glu Gly Leu
                165                 170                 175
Leu Arg Glu Pro Trp Lys Lys Asn Met Phe Thr Pro Glu Thr Lys Pro
            180                 185                 190
Glu Glu Gly Lys Phe Tyr Phe Pro Asp Val His Gln Met Ala Glu Leu
        195                 200                 205
Thr Gly Ser Gln Pro Ile Trp Ile Glu Gln Thr Met Gly Lys Gln Ile
    210                 215                 220
Pro Ser Arg Ala Ser Arg Arg Ser Arg His Asp
225                 230                 235
```

<210> 31447
<211> 490
<212> PRT
<213> A.fumigatus

<400> 31447

```
Ile Tyr Leu Ala Leu Glu Met Leu Leu Asn Val Pro Leu Arg Thr Leu
1               5                   10                  15
```

```
Gly Thr Cys Leu Ser Arg Ala Pro Ser Ile Pro Leu Arg Ser Ile Arg
            20                  25                  30
Asn Ala Ser Leu Thr Ser Ala Ile Gly Arg Gly Ile Arg Lys Thr Arg
        35                  40                  45
Ser Val Glu Gly Arg Asn Glu Pro Gln Lys Ser Ser Thr Gly Asp Ser
    50                  55                  60
Asp Gln Ser Arg Gly Gly Arg His Phe Gly Arg Ser Asp Ser Arg Arg
65                  70                  75                  80
Asp Val Gly Ile Lys Ala Phe Asp Glu Glu Glu Phe Ile Lys Thr Gly
                85                  90                  95
Arg Leu Arg Glu Leu Arg Ser Glu Gln Gly Ala Asp Leu Pro Glu Pro
            100                 105                 110
Lys Arg Pro Arg Ile Gln Thr His Glu Arg Ala Lys Thr Ile Lys Glu
        115                 120                 125
His Arg Lys Glu Arg Asp Leu Gln Asp Arg Ser Arg Leu Lys Arg Gly
    130                 135                 140
Glu Ile Arg Phe Thr Glu Gly Glu Pro Glu Gln Gln Lys Lys His Val
145                 150                 155                 160
Leu Val Pro Asp Ser Val Pro Tyr Thr Thr Pro Ala Ser Glu Phe Ile
                165                 170                 175
Tyr Gly Thr Ser Ala Val Asp Ala Ala Leu Arg Ser Gly Arg Arg Gln
            180                 185                 190
Leu Tyr Lys Leu Tyr Ile Tyr Gln Gly Asp Asn Glu Glu Leu Gly Pro
        195                 200                 205
Thr Arg Ser Met Leu Arg Lys Leu Ala Leu Ser Lys Asn Ile Lys Val
    210                 215                 220
Lys Met Ala Tyr Ala Gly Trp Asp Arg Leu Phe Asp Gln Met Ser Ser
225                 230                 235                 240
Gly Arg Pro His Asn Gly Cys Ile Leu Asp Ala Ser Pro Leu Pro Gln
                245                 250                 255
Leu Pro Val Lys Ser Phe Cys Ala Thr Gln Thr Leu Gly Ala Asp Glu
            260                 265                 270
Phe Arg Val Val Leu Ala Pro Gln Ser Lys Glu Glu Ala Met Val Asn
        275                 280                 285
Ser Thr Asn Asn Arg Val Pro Val Arg His Leu Pro Gly Gln Ser Arg
    290                 295                 300
Tyr Pro Val Val Leu Leu Leu Asp Gly Ile Thr Asp Thr Gly Asn Leu
305                 310                 315                 320
Gly Gly Ile Ile Arg Ser Ala Tyr Tyr Leu Gly Ile Asp Ala Ile Val
                325                 330                 335
Phe Ala Gly Arg Asn Cys Ala Pro Leu Ser Pro Ile Thr Ile Lys Ala
            340                 345                 350
Ser Ala Gly Ala Ala Glu Asn Met Pro Leu Ile Lys Val Ser Asn Glu
        355                 360                 365
Val Asp Phe Ile Gln Gln Ser Lys Ala Asn Gly Trp Arg Phe Phe Ala
    370                 375                 380
Ala Asp Ala Pro Leu Pro Gly Thr Arg Tyr Pro Asp Thr Thr Gly Asp
385                 390                 395                 400
Ile Asp Leu Thr Arg Asn Ala Val Thr Gln Ala Pro Ser Val Ile Met
                405                 410                 415
Leu Gly Ser Glu Gly Ser Gly Leu Ser Gly His Ile Lys Ser His Ala
            420                 425                 430
Asp Ser Ile Val Ser Ile Pro Gly Ala Arg Asn Ala Thr Glu Trp Gly
        435                 440                 445
Tyr Glu Lys Asp Pro Ala Arg Val Asp Ser Leu Asn Val Ser Val Ala
    450                 455                 460
```

```
Ala Ala Ile Leu Met Glu Gln Phe Leu Arg Ile Pro Ile Leu Ile Thr
465                 470                 475                 480
Glu Ala Pro Pro Arg Lys Ala Val Asn Lys
                485                 490

<210> 31448
<211> 74
<212> PRT
<213> A.fumigatus

<400> 31448
Leu Asn Ser Met Ala Arg Ile Arg Arg Thr Leu Asn Gly Lys Asp Leu
1               5                   10                  15
Asn Leu Arg Phe Asn Glu His Pro Ser Gln Gly Leu Ser Lys His Leu
            20                  25                  30
Asn Lys Ser Asn Pro Ser Arg Arg Met Arg Cys Leu Val Lys Cys Asp
        35                  40                  45
Leu Leu Gln Leu Lys Tyr Leu Arg Ser Pro Thr Gln Lys Ser Met Asn
    50                  55                  60
Phe Phe Leu Ala Ile Ser Gly Ser Ala Met
65                  70

<210> 31449
<211> 140
<212> PRT
<213> A.fumigatus

<400> 31449
Val Thr Phe Ser His Leu Gln Thr Leu Glu Asn Gly Pro Glu Ala Leu
1               5                   10                  15
Leu His Phe Gln Ser Thr Asp Tyr Arg Ser Ser Ser Pro Thr Thr Ser
            20                  25                  30
His Ile Thr Leu His Ser Ser Asp Lys Glu Asp Val Glu Ser Glu Thr
        35                  40                  45
Arg Gly Arg Arg Ser Arg Arg Thr Lys Asn Ala Thr Phe Thr Asp Phe
    50                  55                  60
Phe Gly Pro Leu Ser Ser Asp Asp Glu Pro Met Gly Asp Ala Ser Ser
65                  70                  75                  80
Asp Asp Ile Ile Ser Ser Ser Ala Ile Thr Ala Arg Thr Arg Pro Leu
                85                  90                  95
Lys Arg Asp Val Arg Asn Gln Val Pro Arg Arg Ser Arg Gln Gln Ser
            100                 105                 110
Ser Ser Glu Asn Glu Phe Pro Asp Pro Arg Cys Asn Arg Phe Ser Asn
        115                 120                 125
Ser Ala Ala Gly Arg Pro Cys Gly Gly Ile Leu Pro
    130                 135                 140

<210> 31450
<211> 188
<212> PRT
<213> A.fumigatus

<400> 31450
Thr Leu Leu Gln Ala Leu Lys Phe Ile Pro Asn His Arg Val Leu Pro
1               5                   10                  15
Glu Gly Phe Pro Thr Ser Phe Leu Glu Tyr Leu Ser Pro Arg Ser Thr
```

```
            20                  25                  30
Leu Ala Pro Pro His Pro Ser Pro Leu Ala Ala Asn Leu Phe Asn Val
        35                  40                  45
Asp Gly Val Thr Ser Val Phe Tyr Gly Pro Asp Phe Ile Thr Val Asn
    50                  55                  60
Lys Ser Ser Asp Ala Asn Trp Ala His Ile Lys Pro Glu Val Phe Ser
65                  70                  75                  80
Leu Ile Thr Gln Ala Val Thr Ser Gly Glu Ala Ile Val Asn Thr Val
                85                  90                  95
Glu Lys Thr Gly Glu His Ala Gln Glu Ser Gly Glu Gln Glu Ser Leu
            100                 105                 110
Ser Phe Ser Glu Asp Asp Asp Gln Val Val Asn Met Ile Gln Glu Leu
        115                 120                 125
Pro Gly Thr Asp Lys Ser Cys Leu Pro Ile Pro Glu Arg Pro Trp Leu
    130                 135                 140
Ile Phe Glu Thr Pro Gly Ala Phe Gln Glu Thr Gly Leu Trp Leu Asn
145                 150                 155                 160
Phe Lys Ser Ser Pro Trp Val Arg Phe Pro Ala Thr Leu Pro Asn Ser
                165                 170                 175
Lys Leu Pro Gly Glu Leu Leu Lys Lys Trp Ala Phe
            180                 185
```

<210> 31451
<211> 169
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (154)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31451

```
Pro Ala Val His Ser Cys Ser Leu Ala Cys Thr Gln Ser His Lys Ile
1               5                   10                  15
Tyr Cys Ala Pro Lys Pro Gln Gly Pro Glu Pro Lys Ser Ala Thr Asp
            20                  25                  30
Thr Thr Gln Thr Thr Pro Asn Val His Gly Glu Gln Glu Val Thr Glu
        35                  40                  45
Ser Ser Asn Ala Leu Ala Asn Arg Asn Ala Tyr Ser Val Glu Ala Leu
    50                  55                  60
Ala Ser Ser Pro Gln Val Lys Asp Leu Leu Ala Gln Ser Pro Gln Leu
65                  70                  75                  80
Arg Asp Cys Leu Arg Asp Ile Tyr Lys Ile Thr Leu Glu Glu Glu Trp
                85                  90                  95
Ile Glu Gln Gly Pro Pro Gly Arg Ser Arg Pro Tyr His Arg Gly Arg
            100                 105                 110
Gly Gly Tyr Arg Asn Arg Gly Ser Trp Thr Arg Glu Lys Gly Phe Asn
        115                 120                 125
Arg Gly Leu Gly Lys Leu Arg Lys Leu Arg Glu Arg Cys Glu Gly Gly
    130                 135                 140
Ser Glu Thr Gly Lys His Ala Glu Ala Xaa Met Asn Phe Met Ala Leu
145                 150                 155                 160
Val Asn Gly Glu Asn Gln His Gln Gln
                165
```

<210> 31452
<211> 337
<212> PRT
<213> A.fumigatus

<400> 31452
Trp Glu Cys Ile Cys Ala Val Gln Thr Leu Leu Asp Ala Pro Gly Gln
1 5 10 15
Tyr Asp Pro Arg Gly Thr Ala Pro Leu Tyr His His Ser Phe His Gly
20 25 30
Gly Glu Leu Gln Lys Ser Arg Ser Ser Glu Leu His Ser Ser Ile Pro
35 40 45
Gln Cys Cys Cys Arg Gly Pro Thr Ser Ala Gly Lys Thr Ser Met Ile
50 55 60
Glu Tyr Leu Ala Lys Val Ser Gly Asn Lys Phe Val Arg Ile Asn Asn
65 70 75 80
His Glu His Thr Asp Leu Gln Glu Tyr Leu Gly Ser Tyr Val Ser Gly
85 90 95
Asp Asp Gly Thr Leu Arg Tyr Gln Glu Gly Val Leu Val Glu Ala Leu
100 105 110
Arg Asn Gly Tyr Trp Ile Val Leu Asp Glu Leu Asn Leu Ala Pro Ser
115 120 125
Asp Val Leu Glu Ala Leu Asn Arg Leu Leu Asp Asp Asn Arg Glu Leu
130 135 140
Phe Ile Pro Glu Thr Gln Glu Val Val His Pro His Pro Asn Phe Met
145 150 155 160
Leu Phe Ala Thr Gln Asn Pro Ala Gly Leu Tyr Gly Gly Arg Lys Val
165 170 175
Leu Ser Arg Ala Phe Arg Asn Arg Phe Leu Glu Leu His Phe Asp Asp
180 185 190
Ile Pro Glu Ser Glu Leu Glu Phe Ile Leu Lys Glu Arg Ser Gln Ile
195 200 205
Ala Pro Ser Phe Cys Thr Arg Ile Val Ser Val Tyr Arg Lys Leu Ser
210 215 220
Leu Leu Arg Gln Ala Asn Arg Leu Phe Glu Gln Lys Asn Ser Phe Ala
225 230 235 240
Thr Leu Arg Asp Leu Phe Arg Trp Ala Leu Arg Arg Ala Asp Asp Arg
245 250 255
Glu Gln Leu Ala Val Asn Gly Phe Met Leu Leu Ala Glu Arg Val Arg
260 265 270
Asn Pro Gln Glu Arg Ala Ala Val Lys Ala Val Ile Glu Glu Val Met
275 280 285
Lys Val Pro Ile Asp Glu Asp Thr Ile Tyr Ser Ala Ala Glu Leu Glu
290 295 300
Lys Arg Ala Pro Asn Leu Lys Glu Leu Ala Pro Gly Ile Val Trp Thr
305 310 315 320
Lys Ala Met Arg Arg Leu Phe Val Leu Val Ser Val Ala Leu Glu Asn
325 330 335
Asn

<210> 31453
<211> 192
<212> PRT
<213> A.fumigatus

<400> 31453
Pro Val Leu Leu Val Gly Glu Thr Gly Cys Gly Lys Thr Gln Leu Cys
1 5 10 15
Gln Ala Val Ala Glu Ile Cys Arg Lys Gln Leu Phe Ile Val Asn Ala
20 25 30
His Val Asn Leu Glu Thr Gly Asp Leu Ile Gly Ala Gln Arg Pro Val
35 40 45
Arg Asn Arg Ala Ala Ile Glu Thr Gln Leu Leu Asn Asp Leu Arg Thr
50 55 60
Val Val Asn Thr Gly Asp Ala Glu Pro Ile Ser Leu Asp Glu Leu Thr
65 70 75 80
Ser Thr Phe Ser Ala Met Thr Val Glu Gln Leu Glu Ala Cys Asp Thr
85 90 95
Glu Ile Val Gln Arg Ile Gln Lys Asn Ile Ala Arg Leu Asn Ala Leu
100 105 110
Phe Lys Trp Ser Asp Gly Ser Leu Ile Thr Ala Met Lys Thr Gly Gln
115 120 125
Phe Phe Leu Leu Asp Glu Ile Thr Leu Ala Asp Asp Ser Val Leu Glu
130 135 140
Arg Leu Asn Asn Val Leu Glu Pro His Ser Ser Ile Leu Leu Ala Glu
145 150 155 160
Lys Gly Pro Asn Asp Ser Met Val Val Ala His Gln Gly Phe His Ser
165 170 175
Leu Leu Thr Leu Asn Pro Gly Arg Arg Leu Pro Lys Ala Pro Ser Phe
180 185 190

<210> 31454
<211> 307
<212> PRT
<213> A.fumigatus

<400> 31454
Tyr Val Tyr Ala Asp Pro Ser Gly Leu Arg Gly Glu Glu Val Thr Pro
1 5 10 15
Ser Ser Leu Ser Pro Ser Ser Arg Gly Lys Ile Val Arg Ala Leu Arg
20 25 30
Asn Gly Glu Trp Val Leu Leu Asp Glu Val Asn Leu Ala Ser Pro Asp
35 40 45
Thr Leu Glu Asn Ile Ala Ser Leu Leu His His Gly Ser Glu Gly Ser
50 55 60
Pro Ser Val Leu Leu Ser Glu Ala Gly Asp Val Glu Arg Val Phe Gly
65 70 75 80
His Pro Asp Phe Arg Ile Phe Gly Ala Met Asn Pro Ala Thr Asp Ala
85 90 95
Gly Lys Lys Asp Leu Pro Pro Gly Leu Arg Ser Arg Phe Thr Glu Ile
100 105 110
Tyr Val Gln Ser Pro Asp Thr Asp Leu Asp Asp Leu Leu Ala Leu Ile
115 120 125
Gln Lys Tyr Leu Gly Asp Leu Ala Ile Gly Asp Ser Arg Val Val Ser
130 135 140
Asp Leu Ala Gln Leu Tyr Met Glu Thr Lys Lys Leu Asn Asn Glu Asn
145 150 155 160
Lys Leu Thr Asp Gly Ala Gly Gln Arg Pro His Phe Ser Ile Arg Thr
165 170 175
Leu Val Arg Ala Leu Ile Tyr Val Leu Glu Asn Ala His Ile Tyr Gly
180 185 190

```
Leu Arg Arg Ala Val Phe Glu Gly Tyr Cys Met Ser Phe Leu Thr Val
        195                 200                 205
Leu Ser Gln Glu Ser Glu Arg Leu Leu Leu Pro Leu Leu Glu Arg Tyr
    210                 215                 220
Val Phe Gly Asn Ala Lys Asn Ala Arg Ala Leu Leu Gly Gln Thr Pro
225                 230                 235                 240
Arg Pro Pro Asn Asp Gly Asn Ala Tyr Val Gln Phe Lys His Tyr Trp
                245                 250                 255
Met Arg Gln Gly Ser Met Ile Pro Glu Ala Gln Pro His Tyr Ile Ile
            260                 265                 270
Thr Pro Phe Met Glu Glu Asn Phe Lys Asn Leu Val Arg Ala Ser Ser
        275                 280                 285
Thr Arg Arg Phe Pro Ser Ala Val Ala Gly Val Pro His Gln Arg Val
    290                 295                 300
Lys Gln Ala
305
```

<210> 31455
<211> 60
<212> PRT
<213> A.fumigatus

```
<400> 31455
Lys Leu Gly His Leu Ile Glu Glu Val Arg Glu Gly Leu His Val Arg
1               5                   10                  15
Asp Val Gly Ile Lys Ala Glu Thr Val Glu Asn Gly Asn Val Lys Thr
            20                  25                  30
Lys Ala Ala Glu Ala Asp Ile Tyr Asp Phe Ala Val Val His Ile Leu
        35                  40                  45
Ala Phe Arg Leu Ser Lys Val Phe Met Ser Asp Leu
    50                  55                  60
```

<210> 31456
<211> 347
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (5),(17),(18)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 31456
Glu Arg Pro Pro Xaa Ile Tyr Met Arg Thr Ala Arg Leu Leu Glu Lys
1               5                   10                  15
Xaa Xaa Trp Pro Arg Pro Phe Trp Met Lys Ile Ser Glu Leu Leu Leu
            20                  25                  30
Lys Ser Thr Gly Arg Lys Tyr Ser Trp Gln Ser Cys Arg Arg Arg Met
        35                  40                  45
Gln Gln Tyr Val Glu Lys Arg Lys Thr Tyr Trp Ala Ala Phe Asp Ala
    50                  55                  60
Asp Lys Thr Leu Pro Asp Leu Gly Asp Met Asp Glu Asp Leu Ala Ser
65                  70                  75                  80
Asp Ile Asp Asp Trp Met Gly Arg Cys Glu Leu Arg Leu Gln Asn Glu
                85                  90                  95
Glu Lys Glu Arg Arg Asp Lys Ala Gln Lys Thr Glu Leu Glu Gln Ala
```

```
            100                 105                 110
Glu Leu Ala Arg Ala Leu Lys Leu Gln Arg Thr Phe Glu Trp Ala Lys
        115                 120                 125
Asn Leu Pro Pro Pro Glu Glu Met Glu Arg Gln Pro Thr His Trp Gly
    130                 135                 140
Met Pro Pro His Arg Phe Val Thr Met Asn Gly Arg Leu Leu Gln Gly
145                 150                 155                 160
Leu Asp Leu Ala Phe His Leu Ser Lys Val Arg Pro Asp Glu Ser Arg
                165                 170                 175
Gln Leu Ala Leu Asp Ala Val Leu Leu His Gly Gln Phe Gly Tyr Pro
            180                 185                 190
Ala His Asp Gln Lys Pro Lys Pro Asp Pro Ser Gly Pro Cys Leu Gly
        195                 200                 205
Ile Phe Asn Pro Gly Asn Arg Lys Arg Pro Phe Asp Ala Ile Asp Gly
    210                 215                 220
Ala Ala Ser Glu Arg Pro Ala Arg Gln Pro Arg Met Asp Leu Asp Pro
225                 230                 235                 240
His Thr Gln Ser Gln Ser Gln Pro Gln Pro Pro Thr Gln Ala Gln Pro
                245                 250                 255
Ala Ser Gly Asp Lys Pro Ser Glu Lys Arg Glu Thr Pro Ala Ala Met
            260                 265                 270
Leu Ala Arg Lys Asn Val Asp Arg Ile Val Asn His Leu Trp Leu Gln
        275                 280                 285
Phe Ala Lys Gly Ile Ala Pro Tyr Tyr Glu Glu His Arg Asp Gln Pro
    290                 295                 300
Gln Thr Asn Lys Gln Phe Gly Leu Val Leu Tyr Asp Leu Tyr Arg Asp
305                 310                 315                 320
Leu Gly Arg Ala Phe Thr Lys Ala Val Asn Arg Leu Val Asp Leu Glu
                325                 330                 335
Trp Asp Ser Glu Cys Glu Ser Ala Ser Gln Tyr
            340                 345
```

<210> 31457
<211> 198
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1),(38),(39),(110)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31457

```
Xaa Cys Leu Asn His Phe Val Glu Thr Tyr Asp Pro Thr Ile Glu Asp
1               5                   10                  15
Ser Tyr Arg Lys Gln Val Val Ile Asp Gln Gln Ser Cys Met Leu Glu
            20                  25                  30
Val Leu Asp Thr Ala Xaa Xaa Glu Glu Tyr Thr Ser Leu Arg Asp Gln
        35                  40                  45
Trp Ile Arg Asp Gly Glu Gly Ser Cys Leu Ser Thr Ala Ser His His
    50                  55                  60
Ala Leu Arg Ser Leu Ala Tyr Lys Ser Ser Thr Pro Gly Thr Arg Leu
65                  70                  75                  80
Ala Lys Ser Gln Pro Asn Ser Gly Arg His Ser Glu Pro Ala Ile Trp
                85                  90                  95
Glu Ser Pro Met Asn Arg Ala Phe Gly Ser Ala Leu Pro Xaa Pro Val
```

```
            100                 105                 110
Met Leu Val Gly Asn Lys Ser Arg Gln Thr Arg Gly Thr Ser Val Leu
        115                 120                 125
Asn Ala Arg Lys Ala Lys Pro Trp Gln Lys Glu Leu Gly Leu Gln Ile
    130                 135                 140
Leu Gln Gly Leu Pro Pro Glu Met Asp Ser Ser Leu Glu Lys Pro Phe
145                 150                 155                 160
Tyr Lys Val Val Arg Asn Val Arg Lys Lys Gly Lys Lys Gly Arg Gly
                165                 170                 175
Gly Asp Lys Pro Lys Asn Phe Tyr Pro Met Gly Leu Gly Pro Phe Ala
            180                 185                 190
Gln Arg Glu Pro Gly Pro
        195
```

<210> 31458
<211> 453
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (100)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31458

```
Leu Pro Pro Val Gln Arg Gly Thr Phe Gln Pro Arg Gly Val Lys Thr
1               5                   10                  15
Asn Ile Pro Thr Ala Gln Ala Ser Ala Ser Ser Ala Thr Ala Ala Ser
            20                  25                  30
Ile Ala Val Ser His Ser Ala Ala Ala Cys Ala Ser Lys Ala Ile Thr
        35                  40                  45
Lys Thr Arg Val Gln Thr Val Met Ser Gln Ala Thr Lys Pro Ser Ser
    50                  55                  60
Leu Leu Asn Gly Pro Lys Val Phe Glu Arg Ser Lys Pro Gln Tyr Ala
65                  70                  75                  80
Glu Tyr Ala Ala Ser Ser Phe Val Ser Val Lys Ser Ala Gly Ala Lys
                85                  90                  95
Gly Asp Gly Xaa Thr Asp Asp Thr Ala Ala Ile Gln Lys Val Leu Asn
            100                 105                 110
Ser Val Thr Glu Asp Gln Ile Val Tyr Phe Asp His Gly Ala Tyr Ile
        115                 120                 125
Ile Thr Asp Thr Ile Lys Val Pro Lys Asn Ile Lys Ile Thr Gly Glu
    130                 135                 140
Val Trp Pro Leu Leu Met Ala His Gly Glu Lys Phe Ala Asp Glu Lys
145                 150                 155                 160
Asn Pro Ile Pro Leu Leu Gln Ile Gly Gln Pro Gly Glu Lys Gly Ser
                165                 170                 175
Val Glu Ile Thr Asp Leu Ala Ile Gln Thr Lys Gly Pro Ala Pro Gly
            180                 185                 190
Ala Ile Leu Met Glu Trp Asn Val Ala Glu Ala Ser Gln Gly Ser Val
        195                 200                 205
Gly Met Trp Asp Val His Phe Arg Ile Gly Gly Ser Ala Gly Thr Glu
    210                 215                 220
Leu Gln Ser Asp Lys Cys Ser Lys Thr Pro Lys Met Thr Thr Thr Pro
225                 230                 235                 240
Asn Pro Gln Cys Ile Gly Ala Phe Met Leu Leu His Leu Thr Glu Gln
```

```
                245                 250                 255
Ala Ser Ala Tyr Ile Glu Asn Ala Trp Phe Trp Thr Ala Asp His Glu
            260                 265                 270
Leu Asp Leu Ala Asp His Asn Gln Ile Asn Ile Tyr Asn Gly Arg Gly
        275                 280                 285
Val Leu Ile Glu Ser Asn Gly Pro Val Trp Leu Tyr Gly Thr Ala Ser
    290                 295                 300
Glu His His Gln Leu Tyr Asn Tyr Gln Val Ala Asn Ala Gln Asn Val
305                 310                 315                 320
Phe Met Ala Leu Ile Gln Thr Glu Thr Pro Tyr Tyr Gln Ser Asn Pro
                325                 330                 335
Asp Ala Leu Thr Pro Phe Thr Pro Gln Thr Thr Trp Asn Asp Pro Thr
            340                 345                 350
Phe Ser His Cys Thr Thr Ala Ser Cys Arg Lys Ala Trp Gly Leu Arg
        355                 360                 365
Val Met Asn Thr Ser Asp Leu Phe Val Tyr Gly Ala Gly Leu Tyr Ser
    370                 375                 380
Phe Phe Glu Asn Tyr Gly Gln Thr Cys Leu Asp Thr Glu Ser Cys Gln
385                 390                 395                 400
Glu Asn Met Val Glu Val Asp Cys Ser Asn Val His Leu Tyr Gly Leu
                405                 410                 415
Ser Thr Lys Ala Ser Val Asn Met Ile Thr Ser Ser Asn Gly Ala Gly
            420                 425                 430
Ile Val Pro Gln Asp Glu Asn Glu Ser Asn Phe Cys Ser Thr Ile Ala
        435                 440                 445
Leu Phe Glu Gln Ser
    450
```

<210> 31459
<211> 153
<212> PRT
<213> A.fumigatus

<400> 31459

```
Phe Leu Lys Thr Ala Val Ser Leu Ile Phe Ile Ala Phe Ser Ile Arg
1               5                   10                  15
Asp Trp Leu Glu Gly Ser Asp Ala Gly Thr Gly Leu Phe Ser Ser His
            20                  25                  30
Leu Ser Ser Arg Ser Ser Ser Pro Phe Ala Arg Asn Ser Pro Ser Ser
        35                  40                  45
Cys Ile Gly Gly Pro Ser Ala Thr Arg Ser Pro Arg Ser Glu Ser Ser
    50                  55                  60
Gly Lys Thr Thr Ala Thr Thr Ser Ser Ser Thr Ala Ser Val Ser Ser
65                  70                  75                  80
Pro Pro Ser Ala Ala Val Asn Cys Ala Gly Gly Ser Thr Pro Trp Ala
                85                  90                  95
Leu Leu Ser Phe Arg Cys Leu Ser Ala Ser Ser Gly Cys Ile Pro Pro
            100                 105                 110
Thr Met Ser Ser Ser Cys Ser Ser Val Ser Pro Pro Ile Pro Arg Cys
        115                 120                 125
Ser Ser Ser Ser Leu Ile Ser Val Cys Phe Phe His Cys Leu Asp Arg
    130                 135                 140
Glu Val Lys Asn Glu Arg Glu Ala Asn
145                 150
```

<210> 31460

<211> 90
<212> PRT
<213> A.fumigatus

<400> 31460
Lys Met Arg Glu Arg Leu Ile Asp Leu Pro Ala Met Thr His Ser Pro
1 5 10 15
Tyr Ile Thr Ala Ile Asp Thr Val Arg Ala Tyr Thr Ser Gly Pro Arg
20 25 30
Leu Leu Val Glu Val Asp Ile Val Met Asp Pro Glu Glu Ser Leu Arg
35 40 45
Ala Thr His Asp Val Ala Glu Glu Leu Gln Met Lys Leu Glu Ser Leu
50 55 60
Pro Asp Val Glu Arg Ala Tyr Val His Val Asp Tyr Glu Thr Thr His
65 70 75 80
Lys Pro Glu His Phe Leu Lys Lys Glu Leu
85 90

<210> 31461
<211> 151
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (9)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31461
Thr Ser Arg Gln His Trp Val Met Xaa Pro Gln Asp Arg Arg Ile Phe
1 5 10 15
Asn Leu His Arg Leu Phe His Pro Arg Leu Val Gly Gly Phe Arg Arg
20 25 30
Arg Asp Gly Ser Phe Phe Leu Pro Ser Val Ile Ala Val Val Val Ala
35 40 45
Phe Cys Thr Lys Phe Thr Phe Phe Leu Tyr Trp Trp Ala Leu Arg Asn
50 55 60
Gln Val Ser Gln Ile Arg Ile Leu Trp Glu Asp His Arg Asn Asp Leu
65 70 75 80
Phe Ile Asn Gly Phe Gly Ile Leu Thr Ser Val Gly Gly Ser Lys Leu
85 90 95
Arg Trp Trp Ile Asp Pro Met Gly Ala Ile Ile Leu Ser Val Leu Ile
100 105 110
Ser Val Leu Trp Leu His Thr Ala Tyr His Glu Phe Gln Leu Leu Ile
115 120 125
Gly Val Thr Ala Asp Thr Lys Met Gln Gln Leu Ile Thr Tyr Ile Cys
130 135 140
Met Phe Leu Pro Leu Ser Gly
145 150

<210> 31462
<211> 146
<212> PRT
<213> A.fumigatus

<400> 31462

```
Asp Cys Pro His Asp Thr Ser Ser Glu Ser His Val Ser Pro Ala Phe
1               5                  10                  15
Val Lys Val Phe Gly Glu Thr Leu Thr Leu Val Arg Lys Leu Phe Gln
            20                  25                  30
Ser Thr Lys Pro Ser Ala Gln Pro Phe Val Ile Ser Gly Ser Gly Thr
        35                  40                  45
Leu Gly Trp Asp Val Val Ala Ser Tyr Leu Ile Glu Lys Gly Glu Asn
    50                  55                  60
Ala Leu Val Leu His Thr Gly Tyr Phe Ala Asp Ser Phe Ala Ala Cys
65                  70                  75                  80
Leu Glu Thr Tyr Gly Ala His Ala Thr Gln Leu Lys Ala Pro Ile Gly
                85                  90                  95
Asp Arg Pro Ser Phe Glu Gln Ile Glu Gln Ala Leu Lys Glu Lys Pro
            100                 105                 110
Tyr Lys Ile Ile Thr Ile Thr His Val Val Pro Pro Pro Arg Ala Glu
        115                 120                 125
Arg Leu Lys Arg Val Pro Lys Ile Val Ala Gly Leu Pro Gln Thr Pro
    130                 135                 140
Val Gly
145
```

<210> 31463
<211> 275
<212> PRT
<213> A.fumigatus

<400> 31463

```
Ala Arg Ser Ser Arg Asn Gly Leu Cys Trp Val Ser Ser Val Ile Leu
1               5                  10                  15
Phe Ala Ser Leu Phe Cys Arg Asp Lys Val Leu Pro Ser Pro Phe Tyr
            20                  25                  30
Arg Arg Ile Pro His Gly Phe Tyr Glu His Gln Met Arg Ala Tyr Phe
        35                  40                  45
Ser Gln Phe Gly Asp Ile Thr Arg Leu Arg Leu Ser Arg Asn Arg Ile
    50                  55                  60
Thr Gly Arg Ser Lys His Tyr Ala Phe Val Glu Phe Ala Ser Ser Thr
65                  70                  75                  80
Val Ala Lys Ile Val Ala Glu Thr Met Asp Asn Tyr Leu Met Tyr Gly
                85                  90                  95
His Ile Leu Lys Cys Lys Tyr Val Pro Ser Asp Gln Leu His Pro Glu
            100                 105                 110
Val Trp Lys Gly Ala Asn Arg Arg Phe Lys Arg Thr Pro Trp Asn Arg
        115                 120                 125
Ile Glu Lys Lys Arg Leu Glu Lys Gly Lys Thr Arg Glu Gln Trp Ser
    130                 135                 140
Glu Arg Ile Glu Arg Glu Gln Lys Arg Arg Leu Ala Lys Ala Glu Lys
145                 150                 155                 160
Leu Lys Ala Leu Gly Tyr Glu Tyr Glu Leu Pro Gln Leu Lys Ser Val
                165                 170                 175
Asp Glu Val Pro Val Gln Glu Glu Thr Lys Ala Ile Glu Ala Ala Asp
            180                 185                 190
Thr Thr Ala Asp Glu Pro Lys Lys Ala Ile Glu Ala Pro Ser Ala Gln
        195                 200                 205
Glu Ser Lys Glu Glu Thr Thr Val Asp Glu Ile Pro Lys Lys Leu Lys
    210                 215                 220
Lys Glu Lys Lys Ala Ser Gln Ser Thr Pro Lys Gln Gly Thr Pro Lys
```

225 230 235 240
Gln Asp Gly Glu Lys Ala Ser Thr Lys Lys Gly Val Asn Gly Ala Ala
245 250 255
Ala Ser Pro Ala Thr Lys Ala Gly Thr Lys Asp Lys Lys Ala Lys Lys
260 265 270
Val Lys Ala
275

<210> 31464
<211> 209
<212> PRT
<213> A.fumigatus

<400> 31464
Leu Thr Ser Val Glu Arg Ala Ser Phe Gln Pro Arg Gly Glu Asp Ser
1 5 10 15
Ile Leu Lys Lys Asn Lys Lys Asp Gly Pro Ala Thr Glu Gln Asn Ser
20 25 30
Thr Ser Lys Val Lys Val Asn Gly Glu Pro Ala Arg Gln Val Lys Pro
35 40 45
Arg Lys Arg Ala Ala Asp Phe Leu Ser Asp Asp Glu Ser Glu Pro Glu
50 55 60
Val Val Ala Ser Glu Pro Lys Ala Asp Thr Glu Glu Lys Lys Gln Pro
65 70 75 80
Ser Lys Lys Lys Ser Lys Lys Glu Asp Gly Thr Pro Ala Pro Ala Thr
85 90 95
Lys Ala Lys Thr Ser Ala Thr Ala Ala Lys Pro Lys Ala Thr Lys Ala
100 105 110
Lys Lys Pro Glu Pro Val Val Glu Glu Ser Asp Asp Glu Asp Asn Gln
115 120 125
Gln Val Pro Val Val Ser Asp Asp Ser Ser Glu Asp Glu Glu Asp Asp
130 135 140
Thr Leu Asp Asp Gln Thr Ala Ala Leu Ile Lys Gly Phe Glu Ser Ser
145 150 155 160
Gly Asp Glu Asp Glu Ser Gly Asp Glu Gly Phe Asp Pro Asp Gln Pro
165 170 175
Val Pro Lys Ile Pro Asp Ser Lys Lys Ala Lys Arg Lys Ile Leu Lys
180 185 190
Lys Gln Lys Lys His Asp Glu Pro Glu Val Pro Gly Thr Val Tyr Val
195 200 205
Gly

<210> 31465
<211> 465
<212> PRT
<213> A.fumigatus

<400> 31465
Arg Arg Thr Pro Arg Gly Val Met Glu Ser Glu Arg Asp Pro Gly Asn
1 5 10 15
Pro Gly Asn Pro Ala Val Asn Pro Ser Glu Thr Lys Val Leu Leu Ser
20 25 30
Gly Val Val Pro Pro Pro Leu Leu Thr Gly Thr Gln His Arg Asp Arg
35 40 45
Tyr Gly Phe Arg Lys Lys Thr Asn Tyr Ile Thr Leu Glu Gln Tyr Glu

```
    50                  55                  60
Ala Trp Asn Gly Pro Tyr Ser Glu Phe Val Ala Ser Arg Arg Val Lys
65                  70                  75                  80
Trp Ala Glu Leu Leu Lys Glu Asn Gly Leu Pro Thr Ser Glu Pro Thr
                85                  90                  95
Val Phe Pro Ala Lys Ser Ser Lys Met Lys Arg Phe Val Arg Lys Gly
            100                 105                 110
Ile Pro Ser Glu Phe Arg Gly Ala Ala Trp Phe Trp Tyr Ala Gly Gly
        115                 120                 125
Phe Asp Leu Leu Lys Arg Asn Pro Gly Leu Tyr Asp Arg Leu Val Lys
    130                 135                 140
Glu Ala Met Asp Ser Pro Asn Asn Asp Asp Lys Glu His Ile Glu Arg
145                 150                 155                 160
Asp Leu His Arg Thr Phe Pro Asp Asn Val His Phe Lys Pro Glu Phe
                165                 170                 175
Val Asp Glu Ala Met Thr Ser Gly Thr Ser Ser Gly Ser Ser Asn Pro
            180                 185                 190
Lys Tyr Ser Ser Val Thr Val Glu Thr Gln Met Ile Gln Ser Leu Arg
        195                 200                 205
Arg Val Leu Tyr Ala Phe Ser Leu Tyr Asn Pro Arg Val Gly Tyr Thr
    210                 215                 220
Gln Ser Leu Asn Phe Ile Thr Gly Met Leu Leu Leu Phe Leu Pro Glu
225                 230                 235                 240
Glu Lys Ala Phe Trp Met Leu His Ile Val Thr Ser Val Tyr Leu Pro
                245                 250                 255
Gly Thr His Glu Ile Ser Leu Glu Gly Ala Asn Ile Asp Leu Trp Ile
            260                 265                 270
Leu Met Val Leu Leu Lys Glu Thr Leu Pro His Ile Tyr Asn Lys Ile
        275                 280                 285
Ala Gly Asn Pro Gly Arg Ser Lys Thr Pro Ala Leu Thr Val Asp Ser
    290                 295                 300
Arg Leu Pro Asp Ile Thr Leu Gly Leu Thr Asn Trp Leu Met Ser Leu
305                 310                 315                 320
Phe Ile Gly Ser Leu Pro Leu Glu Thr Thr Leu Arg Val Trp Asp Val
                325                 330                 335
Phe Phe Phe Glu Gly Ser Lys Thr Phe Phe Arg Val Ser Leu Ala Ile
            340                 345                 350
Phe Lys Ala Cys Glu Lys Asp Ile Leu Ala Val Ser Asp Pro Met Glu
        355                 360                 365
Val Phe Gln Val Val Gln Thr Val Pro Lys Lys Leu Leu Asp Ala Asn
    370                 375                 380
Ala Leu Leu Glu Asp Cys Phe Val Arg Arg His Arg Val Gly Gln Gly
385                 390                 395                 400
Arg Ile Glu Glu Leu Arg Ala Ser Arg Arg Ala Ala Val Arg Gln Glu
                405                 410                 415
Lys Leu Arg Arg Ser Leu Ala Ile Ser Lys Gly Gln Leu Gln Ala Ala
            420                 425                 430
Thr Asp Glu Trp Pro Thr Thr Arg Ser Arg Thr Pro Ile Pro Gly Leu
        435                 440                 445
Glu Arg Lys Val Ala Asp Ser Trp Arg Gln Met Arg Gln His Ala Phe
    450                 455                 460
Arg
465
```

<210> 31466
<211> 94

<212> PRT
<213> A.fumigatus

<400> 31466
Gln Ser Thr Ala Arg Ile Ala Gly Pro Arg Gly Arg Arg Thr Ala Met
1 5 10 15
Leu Pro Met Gln Asn Ile Trp Gln Arg Asn Glu Thr Trp Thr Lys Tyr
20 25 30
Leu Tyr Phe Leu Leu Asn Glu Arg Gln Asn Ile Ala Ile Arg Ile Leu
35 40 45
Pro Ile Ile Ser Gln Lys Gln Asn Gly Gln Ile Ser Ile Phe Arg Leu
50 55 60
Gln Pro Thr Arg Ile Ser Ala Phe Lys Glu Leu Arg Pro Leu Asp Leu
65 70 75 80
Ile Met Arg Pro Pro Arg Gly Arg Cys Thr Arg Arg Lys Ala
85 90

<210> 31467
<211> 60
<212> PRT
<213> A.fumigatus

<400> 31467
Arg Pro Arg Leu Glu Gln Cys His Cys Met Leu Ala Asp Phe Asp Leu
1 5 10 15
Arg Phe Gly Cys Glu Phe Pro Lys Asp Gly Asp Glu Gly Val Glu Lys
20 25 30
Arg Ser Arg Arg Tyr Asp Ala Asn Phe Phe Ala Glu Tyr Arg Val Lys
35 40 45
Ile Val Asp Glu Val Leu Ala Lys Leu Met Phe Gly
50 55 60

<210> 31468
<211> 427
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (396),(402)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31468
Ala Cys Thr Leu Leu Lys Arg Thr Ser Leu Met Ala Ser Gln Arg Ile
1 5 10 15
Ala Ser Ala Leu Ala Glu Ile Glu Ser Ser Thr Asn Pro Gln Thr Lys
20 25 30
Leu Gln Gln Tyr Asn Asn Leu Leu Ser Glu Ile Thr Ser Thr Ser Ser
35 40 45
Glu His Glu Leu Gly Gln Asp Leu Ile Tyr Tyr Leu Asp Ser Val Leu
50 55 60
Ser Glu Glu Ile Ser Ile Val Ala Ala Arg Pro Leu Leu Asp Ser Phe
65 70 75 80
Ile Ala Val Leu Arg Lys Leu Thr Pro Glu Thr Gln Ile Lys Val Gly
85 90 95
Gln His Ala Val Thr Leu Leu Gln Ser Arg Ser Ser Ser Val Glu Glu

```
            100                 105                 110
Gln Asp Ser Gln Ile Arg Glu Ile Leu Ala Asp Ala Tyr Glu Ser Gln
        115                 120                 125
Glu Glu Tyr Ala Ala Ala Ala Arg Ala Leu Gln Gly Ile His Ile Asp
    130                 135                 140
Ser Ser Gln Arg Leu Val Ser Asp Ala Ala Lys Val Arg Leu Trp Ile
145                 150                 155                 160
Arg Ile Val Arg Leu Tyr Leu Glu Glu Asp Asp Thr Thr Ser Ala Glu
                165                 170                 175
Gly Phe Leu Asn Lys Ile Lys Asn Leu Pro Ser Lys Ile Glu Asp His
            180                 185                 190
Glu Leu Lys Leu His Phe Lys Leu Ser Gln Ala Arg Ile Leu Asp Ala
        195                 200                 205
Arg Arg Arg Phe Leu Asp Ala Ser Gln Glu Tyr Phe Asn Val Ser Leu
    210                 215                 220
Ala Gly Gly Val Asp Glu Ser Asp Arg Leu Gln Ala Leu Ala Ala Ala
225                 230                 235                 240
Ile Arg Cys Ala Val Leu Ala Pro Ala Gly Pro Gln Arg Ser Arg Ile
                245                 250                 255
Leu Ala Thr Leu Tyr Lys Asp Asp Arg Ala Thr Ser Val Glu Glu Phe
            260                 265                 270
Gly Ile Leu Glu Lys Met Phe Leu Asp Arg Leu Leu Asp Pro Ala Glu
        275                 280                 285
Ile Ala Ala Phe Ser Glu Arg Leu Ala Pro His Gln Leu Ala Arg Thr
    290                 295                 300
Ala Asp Gly Thr Thr Val Leu Asp Lys Ala Val Val Glu His Asn Leu
305                 310                 315                 320
Val Ala Ala Ser Lys Leu Tyr Glu Asn Ile Thr Thr Asp Ala Leu Gly
                325                 330                 335
Ala Ile Leu Gly Leu Lys Glu Ser Gly Asp Met Thr Ala Gly Glu Lys
            340                 345                 350
Ala Glu Ala Tyr Ala Ala Arg Met Val Glu Gln Gly Arg Leu Asn Gly
        355                 360                 365
Ser Ile Asp Gln Ile Ala Gly Met Ile Tyr Phe Asp Ser Ser Glu Gly
    370                 375                 380
Gly Ser Ala Thr Ala Thr Gly Arg His Ile Arg Xaa Trp Asp Ala Gly
385                 390                 395                 400
Val Xaa Gly Leu Ser Glu Asn Val Glu Arg Val Ala Ala Ser Ile Lys
                405                 410                 415
Asp Ala Phe Pro Val Cys Ala His Ser Val Trp
            420                 425
```

<210> 31469
<211> 122
<212> PRT
<213> A.fumigatus

<400> 31469

```
Pro Pro Ala Arg Pro Leu Ala Leu Leu Ser Cys Ala Gly Arg Phe Trp
1               5                   10                  15
Leu Lys Thr Thr Ser Arg Pro Arg Asn Ile Leu Gly Val Ile Gly Tyr
            20                  25                  30
Trp Phe Leu Thr Lys Asn Ser His Leu Pro Leu Ile Val His Val Leu
        35                  40                  45
Asp Tyr Glu Tyr Gly Lys Thr Ala Leu Leu Ala Ala Lys Asn Val Ala
    50                  55                  60
```

```
Gly Glu Asn Ala Met Thr Thr Thr Ser Glu Glu Ala Ser Asp Phe Ile
65                  70                  75                  80
Gln Thr Ala Asn Ala Val Asn Lys Met Val Thr Val Tyr Gln Ser Lys
                85                  90                  95
Pro Leu Ala Ser Trp Leu Arg Gly His Arg Gly Arg Thr Phe Arg Trp
            100                 105                 110
Ser Leu Leu Cys Asp Leu Asp Lys His Phe
        115                 120
```

<210> 31470
<211> 62
<212> PRT
<213> A.fumigatus

<400> 31470

```
Ser Asp Asn Phe Ser Thr His His Thr Gly Phe Ile Leu Leu Pro Ser
1               5                   10                  15
Ala Leu Phe His Tyr Gly Ile Ala Gly Gly Gly Gln Gly Lys Pro Asp
            20                  25                  30
Asn Arg Phe Ile Thr Gly Lys Arg Val Leu Ala Arg Ile Ala Cys Gly
        35                  40                  45
Lys Phe Ala Val Ile Ala Ser Val Lys Gln Thr Cys Leu Thr
    50                  55                  60
```

<210> 31471
<211> 245
<212> PRT
<213> A.fumigatus

<400> 31471

```
Glu Asn Arg Arg Ala Thr Pro Asn Ile Arg His Asp Asp Arg Thr Thr
1               5                   10                  15
Ile Ser Arg Ser Gln Leu Ile Thr Thr Ser Ile Val Arg Pro Val Lys
            20                  25                  30
Met Leu Phe Leu Ser His Val Val Phe Gly Leu Ser Leu Leu Thr Ala
        35                  40                  45
Val Ala Tyr Gly Thr Leu Tyr Ile Phe Phe Thr Thr Val Thr Asp Val
    50                  55                  60
Phe Ala Ser Arg Tyr Gly Ile Ile Thr Asn Val Gly Leu Ile Tyr Leu
65                  70                  75                  80
Gly Cys Gly Cys Gly Gln Phe Ala Gly Leu Pro Ile Leu Gly Leu Val
                85                  90                  95
Ser Asp Ala Ile Val Arg Arg Ala Ala Arg Gly Gly Glu Met Lys Pro
            100                 105                 110
Glu Tyr Arg Leu Pro Pro Thr Ile Leu Gly Gly Ser Met Ile Pro Ile
        115                 120                 125
Gly Leu Leu Ile Tyr Gly Trp Thr Ala Glu Tyr Arg Val Phe Trp Phe
    130                 135                 140
Val Pro Val Leu Gly Thr Phe Leu Ile Gly Phe Gly Met Ile Thr Val
145                 150                 155                 160
Phe Thr Pro Val Gly Thr Tyr Leu Val Asp Ala Phe Pro Met Tyr Ala
                165                 170                 175
Ala Ser Ala Thr Ala Ala Asn Thr Val Phe Arg Ser Val Gly Gly Ala
            180                 185                 190
Phe Leu Pro Leu Ala Gly Pro Arg Met Tyr Ser Ser Leu Gly Gln Gly
        195                 200                 205
```

```
Trp Gly Asn Thr Leu Leu Ala Gly Ile Ser Leu Leu Met Met Gly Met
    210                 215                 220
Ile Phe Met Ser Leu Lys Tyr Gly Glu Arg Leu Arg Thr His Pro Lys
225                 230                 235                 240
Tyr Gln Ile Lys Leu
                245
```

<210> 31472
<211> 378
<212> PRT
<213> A.fumigatus

<400> 31472

```
Pro Ala Phe Gln Met Ala Arg Asn Pro Thr Met Asp Pro Asn Gly Thr
1               5                   10                  15
Leu Ser Arg Pro Leu Asp Glu Ser Leu Tyr Arg Glu Leu Pro Gln Leu
            20                  25                  30
Gln Ser Leu Arg Ile Ala Pro Leu Arg Gln Pro Val Ser Ser Arg Leu
        35                  40                  45
Leu Ser Ala Pro Ser Pro Leu Glu Pro Asn Ala Thr Gly Ile Ser Glu
    50                  55                  60
Pro Asn Ala Ser Ser Lys Pro Asn Thr Pro Gly Ala Asn Gln Pro Ala
65                  70                  75                  80
Asn Leu Pro Thr Leu Thr Glu Phe Leu Asn Ala Ala Gln Ser Lys Lys
                85                  90                  95
Asn Gly Arg Ala Val Asp Thr Leu Leu Ser Leu Glu Pro Pro Pro Lys
            100                 105                 110
Thr Ile Leu Pro Ala Phe Val Asn Leu Arg Ala Leu Glu Arg Phe Pro
        115                 120                 125
Tyr Ser Ser Phe Asp Asp Asp Ser Leu Ala Arg Lys Arg Arg Arg Leu
    130                 135                 140
Asp Val Gln Thr Asp Ser Phe Gly Glu His Leu Gln Leu Pro Ile Pro
145                 150                 155                 160
Gln Ala Gln Lys Glu His Arg Pro Pro Pro Phe Gly Pro Phe Ala Ile
                165                 170                 175
Leu Asn Gly Leu Asn Glu Pro Pro Pro Asn Ala Ala Leu Leu Pro Pro
            180                 185                 190
Ile Glu Pro Gly Ser Ile Thr Gln Leu Leu Thr Lys Pro Ser Arg Asp
        195                 200                 205
Val Ala Val Val Glu Ser Val Thr Leu Thr Ala Thr Thr Thr Ala Ala
    210                 215                 220
Ala Gln Thr Ala Glu Arg Arg Glu Gly Arg Ile Lys Asp Ile Leu Asp
225                 230                 235                 240
Ser Pro Ile Asp Asp Lys Thr Ala Ser Ala Asp Gln Asp Pro Val Glu
                245                 250                 255
Ala Asn His Ser Val Asn Gly Ala Thr Val Asp Arg Pro Gly Gly Asp
            260                 265                 270
Ser Asp Lys Ser Glu Ser Asp Lys Thr Pro Pro Arg Ala Asp Asp Val
        275                 280                 285
Glu Pro Leu Ser Pro Lys Thr Arg Gly Arg Ser Arg Lys Asn Val Arg
    290                 295                 300
Lys Trp Thr Glu Glu Glu Thr Thr Ala Leu Leu Arg Gly Val Val Lys
305                 310                 315                 320
Cys Gly Ile Gly Asn Trp Thr Ala Ile Leu Ala Gln Pro Glu Leu Lys
                325                 330                 335
Phe Asn Lys Arg Ser Ala Ser Asn Leu Lys Asp Arg Tyr Asp Leu Arg
```

```
            340                 345                 350
Ala Val Pro Glu Lys Pro Arg Thr Asn Ile Gly Phe His Val Val Arg
        355                 360                 365
Phe Arg Val Cys Cys Pro Trp Ala Tyr Arg
    370                 375
```

<210> 31473
<211> 275
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (261)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31473

```
Val Leu Ile Leu Thr Leu Phe Gly Cys Ser Ser Leu Thr Phe Tyr Ser
1               5                   10                  15
Ala Ala Asp Pro Asn Glu Ala Thr Lys Gln Leu His Asp Thr Leu Ala
            20                  25                  30
Asn Ala Leu Leu Arg Ala Glu Thr Glu Gly Ser Asp Gly Thr Ala Gly
        35                  40                  45
Lys Ile Leu Leu Pro Gln Pro Arg Pro Thr Asn Ser Glu Ser His Thr
    50                  55                  60
Ser Asn Gly Gly Ser Met Ala Asn Val Asn Glu Ser Ala Ser Ala Ser
65                  70                  75                  80
Ser Ser Ser Glu Ala Asp Thr Lys Ile Ser Lys Ser Pro Ser Lys Tyr
                85                  90                  95
Gly Pro Ser Phe Lys Ala Thr Pro Thr Leu Ser Asn Arg Ser Lys Ser
            100                 105                 110
Thr Leu Ala Ser Leu Gly Ile Pro Glu Pro His Phe Ala Met Lys Ser
        115                 120                 125
Arg Arg Arg Ser Arg Arg Pro Phe Thr Val Ala Glu Asp Glu Ala Leu
    130                 135                 140
Leu Lys Gly Tyr Ala Val His Gly Phe Gln Trp Thr Leu Ile Gln Gln
145                 150                 155                 160
Asp Lys Arg Leu Asn Leu Ser His Arg Lys Ala Thr Asp Leu Arg Asp
                165                 170                 175
Arg Phe Arg Thr Lys Phe Pro His Ala Tyr Arg Asp Gly Gly Ser Val
            180                 185                 190
Asn Gly Arg Ser Leu His Ile Gln Ser Gln Gly Val Asp Leu Ala Asp
        195                 200                 205
Thr Glu Lys Ala Pro Pro Ile Lys Pro Asn Thr Gln Pro Thr Arg Gln
    210                 215                 220
Ser Thr Ser Ser Ala Arg Ser Gly Arg Thr Glu Trp Ala Glu Ser Val
225                 230                 235                 240
Ser Leu Gly Thr Ile Glu Ser Gly Leu Ser Pro Pro Ala Pro Pro Gln
                245                 250                 255
Gly Leu Leu Glu Xaa Ala Thr Asn Ala Pro Gln Glu Ile Thr Ser Thr
            260                 265                 270
Phe Pro Gly
        275
```

<210> 31474
<211> 117

<212> PRT
<213> A.fumigatus

<400> 31474
Leu Thr Asp Thr Cys Val Lys Asn Gly Gly Ser His Phe Leu Ala Glu
1 5 10 15
Ile Ala Ser Arg Glu Phe Met Asp Asn Leu Val Ser Leu Leu Thr Thr
20 25 30
Glu Gly Ala Pro Leu Asn Thr Asp Val Lys Glu Lys Met Leu Glu Leu
35 40 45
Ile Gln Asp Trp Ala Met Ala Ala Gln Gly Arg Met Asp Leu Asn Tyr
50 55 60
Leu Gly Glu Thr Tyr Arg Lys Leu Gln Asn Glu Gly Phe Arg Phe Pro
65 70 75 80
Pro Lys Asn Glu Ile Ser Gly Ser Met Leu Glu Ser Ser Ala Val Cys
85 90 95
Leu Arg Pro Ser His Gly Ala Asp Leu Leu Leu Lys Leu Thr Phe Lys
100 105 110
Ile Pro Ala Glu Thr
115

<210> 31475
<211> 237
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (206)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31475
Pro Pro Glu Trp Ile Asp Ser Asp Val Cys Met Arg Cys Arg Thr Pro
1 5 10 15
Phe Ser Phe Met Asn Arg Lys His His Cys Arg Asn Cys Gly Asn Val
20 25 30
Phe Asp Ala Gln Cys Ser Ser Lys Thr Leu Pro Leu Pro His Leu Gly
35 40 45
Ile Leu Gln Pro Val Arg Val Asp Asp Gly Cys Tyr Val Lys Leu Thr
50 55 60
Ser Lys Ser Ser Leu Pro Ser Asn Leu Ser Asp Arg Ser Ala Phe Lys
65 70 75 80
Asn His Ser Ile Thr Lys Ala Asn Ala Met Glu Pro Arg Gly Ala Arg
85 90 95
Ala Glu Gly Gly Phe Asp Asp Asp Leu Arg Arg Ala Leu Gln Leu Ser
100 105 110
Leu Glu Lys Ala Gln Ser Lys Gly Ser Ser Gly Tyr Val Pro Ser Thr
115 120 125
Arg Ile Asn Asp Glu Pro Ala Lys Thr Thr Thr Gln Thr Asn His Glu
130 135 140
Glu Glu Glu Asp Ala Asp Leu Lys Ala Ala Ile Glu Ala Ser Leu Arg
145 150 155 160
Asp Met Glu Glu His Lys Lys Lys His Ala Ala Ala Leu Lys Ser Asn
165 170 175
Ala Ala Ala Thr Asp Ser Ser Thr Arg Asp Ser Ala Ala Ala Thr Pro
180 185 190

```
Leu Pro Lys Asn Pro Tyr Glu Leu Ser Pro Val Glu Val Xaa Asn Ile
        195                 200                 205
His Leu Phe Ala Ala Leu Val Asp Arg Leu Gln His Gln Pro Pro Gly
    210                 215                 220
Thr Ile Leu Arg Glu Pro Gln Ile Gln Glu Leu Tyr Glu
225                 230                 235
```

<210> 31476
<211> 236
<212> PRT
<213> A.fumigatus

<400> 31476

```
Pro Ala Leu Leu Cys Ser Thr Pro Asp Ser Val Gln His Arg Pro Glu
1               5                   10                  15
Leu Thr Asp Gly Asn Gln Leu Pro Asn Leu Ile Ile Gly Asp Leu Asp
            20                  25                  30
Ser Ile Arg Pro Ser Val Arg Ser His Tyr Glu Gly Leu Gly Val Ser
        35                  40                  45
Val Ile Lys Asp Pro Asp Gln Tyr Ser Thr Asp Phe Thr Lys Cys Leu
    50                  55                  60
Lys Tyr Leu Arg Ala His Ala Ala Glu Ile Ile Thr Lys Arg Val Ile
65                  70                  75                  80
Ser Thr Gln Ser Arg Ser Ala Arg Leu Glu Ile Leu Ile Met Gly Gly
                85                  90                  95
Leu Gly Gly Arg Val Asp Gln Ala Leu Ser Gln Ile His His Leu Tyr
            100                 105                 110
Met Met Thr Arg Glu Val Ala Gly Glu Ser Ala Ala Gly Asp Leu Tyr
        115                 120                 125
Leu Ile Ser Glu Glu Ser Ile Thr Phe Leu Leu Gln Ser Gly Arg His
    130                 135                 140
Thr Ile Arg Thr Pro Arg Thr Asn Arg Pro Gly Val Cys Pro Glu Gln
145                 150                 155                 160
Gly Glu Asp Glu Tyr Tyr Leu Leu Glu Glu Asn Val Gly Ile Ile Pro
                165                 170                 175
Leu Ser Gly Pro Ala Arg Ile Thr Thr Arg Gly Phe Gln Trp Asp Val
            180                 185                 190
Glu Asp Trp Leu Thr Glu Ile Gly Gly Gln Leu Ser Thr Ser Asn His
        195                 200                 205
Ile Arg Ala Asp Glu Val Met Val Glu Thr Gly Val Pro Val Leu Phe
    210                 215                 220
Thr Leu Glu Leu Ala Glu Arg Phe Lys Arg Met Arg
225                 230                 235
```

<210> 31477
<211> 151
<212> PRT
<213> A.fumigatus

<400> 31477

```
Lys Gly Leu Leu Pro His Pro Phe Ser Ala Pro Leu Ser Cys Trp Ala
1               5                   10                  15
Gln Pro Ser Ile Thr Leu Arg Phe Ala Phe Lys Gly Thr His Pro Leu
            20                  25                  30
His Val Gly Gly Trp Gly Leu Leu Gly Pro Arg Ser Pro Cys Gly Cys
        35                  40                  45
```

```
Leu Arg Ala Thr Leu Leu Pro Trp Phe Phe Ala Tyr Phe Phe Asn Ile
    50                  55                  60
Ser Cys Lys Ala Ser Gly Ser Ser Val Leu Lys Thr Arg Lys Ala Pro
65                  70                  75                  80
Lys Thr Arg Pro Glu Phe Asp Pro Leu Ser Phe Asn Ile Ala Lys Ala
                85                  90                  95
Val Ile Ala Tyr Val Val Tyr Ala Gln His Phe Asn Phe Met Gly Leu
            100                 105                 110
Tyr Ser Asn Phe Ser Ile Glu Arg Val Asn Val Ser Val Pro Phe His
        115                 120                 125
Trp Pro Gly Met Leu Thr Thr Ala Ala Ile Gly Thr Val Gly Thr Leu
    130                 135                 140
Tyr Glu Ala Ile Leu Arg Lys
145                 150
```

<210> 31478
<211> 69
<212> PRT
<213> A.fumigatus

<400> 31478

```
Cys Leu Pro Cys Leu His Ala Ala Ala Thr Arg Lys Pro Leu Gly Ile
1               5                   10                  15
Ser Pro Ile Val Gly Thr Ala Ile Ala Ala Phe Gly Asn Gln Leu Ala
            20                  25                  30
Thr Thr Thr Phe Ile Thr Tyr Ala Val Asp Asn Tyr Pro Gln Asp Ser
        35                  40                  45
Gly Ser Val Gly Val Phe Ile Thr Phe Val Arg Gln Met Trp Gly Phe
    50                  55                  60
Ile Val Pro Phe Trp
65
```

<210> 31479
<211> 69
<212> PRT
<213> A.fumigatus

<400> 31479

```
Phe Ser Ala Cys Leu Leu Ser Ala Val Val Ile Met Ser Asn Gly Thr
1               5                   10                  15
Ala Gln Ser Ala Glu Glu Ala Leu Tyr Lys Pro Tyr Asp Gln Phe Ile
            20                  25                  30
Leu Phe Gly Asp Ser Ile Thr Gln Met Ser Ser Asp Gln Ser Met Gly
        35                  40                  45
Phe Gly Phe Gln Pro Ala Leu Gln Asp Gly Lys Ile Pro Leu Ser Ile
    50                  55                  60
Gly His Ala Thr Thr
65
```

<210> 31480
<211> 143
<212> PRT
<213> A.fumigatus

<400> 31480

```
Thr Ile Phe Phe Gly Ala Asn Asp Ala Ala Val Pro Gly His Tyr Gln
```

```
1               5                   10                  15
His Val Pro Val Glu Thr Tyr Lys Glu Asn Leu Lys Lys Ile Ile Gln
            20                  25                  30
His Pro Ala Thr Val Ala Gln Asn Pro Arg Ile Leu Ile Leu Thr Pro
        35                  40                  45
Pro Pro Val Asn Glu Tyr Gln Leu Glu Glu Phe Asp Ile Ala Lys Asn
    50                  55                  60
Thr Pro His Pro Ser Arg Thr Val Lys Gln Thr Lys Leu Tyr Ala Glu
65                  70                  75                  80
Ala Ala Arg Glu Val Ala Ala Ser Leu Gly Val Ala Val Val Asp Leu
                85                  90                  95
Trp Thr Thr Phe Met Thr Ala Ala Gly Trp Lys Glu Gly Glu Pro Leu
            100                 105                 110
Ile Gly Ser Arg Asp Ala Pro Asn Asn Glu Lys Leu Gln Ser Phe Phe
        115                 120                 125
Thr Asp Gly Ser Ile Pro Leu Phe Val His Met Gly Ala Ser Cys
    130                 135                 140
```

<210> 31481
<211> 64
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (32),(42),(54),(56)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31481

```
Glu Arg Tyr Pro Met Ala Phe Glu Trp Leu Leu Arg Ala Asn Lys Glu
1               5                   10                  15
Asp Ile Thr Pro Thr Ile Val Arg Ile Asp Pro Gly Tyr Val Thr Xaa
            20                  25                  30
Lys Gln Ser Arg Val Arg Val Leu Ser Xaa Tyr Asn Lys Pro Val Val
        35                  40                  45
His Pro Lys Phe Arg Xaa Lys Xaa Ser Asn Leu Phe Ser Lys Asn Gln
    50                  55                  60
```

<210> 31482
<211> 294
<212> PRT
<213> A.fumigatus

<400> 31482

```
Cys Gly Gly Ser Asp Asp Pro Arg Leu Tyr Thr Leu Ile Ala Ile Arg
1               5                   10                  15
Arg Arg Gly Ile Pro Pro Gly Ala Ile Leu Ser Phe Val Asn Asn Leu
            20                  25                  30
Gly Val Thr Lys Ala Thr Ala Ile Val Gln Thr Ala Lys Leu Asp Gln
        35                  40                  45
Ile Val Arg Gln Tyr Leu Glu Thr Thr Val Pro Arg Leu Met Val Val
    50                  55                  60
Leu Glu Pro Leu Lys Val Val Ile Ser Asn Leu Pro Asp Gly Tyr Glu
65                  70                  75                  80
Glu Met Val Glu Val Pro Phe Ser Lys Asp Pro Ala Phe Gly Ser His
                85                  90                  95
```

```
Leu Val Pro Phe Thr Lys Thr Val Tyr Ile Glu Arg Ser Asp Phe Arg
            100                 105                 110
Glu Glu Asp Ser Pro Asp Tyr Phe Arg Leu Ala Pro Gly Lys Thr Val
        115                 120                 125
Gly Leu Leu Lys Val Pro Phe Pro Ile Thr Ala Thr Ala Phe Asp Lys
    130                 135                 140
Asp Pro Gln Thr Gly Ala Val Thr Cys Val Tyr Ala His Tyr Glu Lys
145                 150                 155                 160
Pro Glu Glu Gly Ser Asp Gly Pro Ala Lys Lys Ala Lys Thr Tyr Ile
                165                 170                 175
His Trp Val Gly Glu Ser Ala Ala His Lys Ser Pro Val Lys Ala Glu
            180                 185                 190
Val Arg Ala Phe Asn Ser Leu Phe Lys Ser Asn Asp Pro Ser Ala His
        195                 200                 205
Pro Asp Gly Phe Leu Ala Asp Ile Asn Pro Asp Ser Glu Glu Ile Tyr
    210                 215                 220
Glu Gly Ala Tyr Ile Asp Ile Gly Phe His Asp Val Ser Lys Ser Ala
225                 230                 235                 240
Pro Trp Pro Lys Thr Ser Gly Glu Thr Gly Gly Glu Val Asn Pro Tyr
                245                 250                 255
Ser Ile Arg Phe Gln Gly Met Arg Thr Ala Tyr Phe Cys Val Asp Thr
            260                 265                 270
Asp Ser Thr Ala Asp Asn Val Val Leu Asn Arg Ile Val Thr Leu Lys
        275                 280                 285
Asp Thr Gln Gly Lys Thr
    290
```

<210> 31483
<211> 150
<212> PRT
<213> A.fumigatus

<400> 31483

```
Leu Ile Ser Pro Leu Pro Asn Gln Ser Thr Thr Leu Ser Pro Asn Gln
1               5                   10                  15
Val Gln Ala Lys Ala Lys Lys Lys Lys Asn Glu Pro Ser Gln Thr Pro
            20                  25                  30
Asn Ser Pro Pro Tyr Pro Arg Arg Leu Arg His Ser Leu Pro Pro Pro
        35                  40                  45
Pro Pro Arg Pro Arg Pro Ile Arg Arg Gly Arg Ala Arg Leu Arg Pro
    50                  55                  60
Pro Pro Leu Asn Gln His His Pro Arg Pro Pro Gln Asn Ser Leu Pro
65                  70                  75                  80
Ile Asn Leu Gln Glu Thr Val Ala Asp Thr Pro Lys Leu Arg Pro Gly
                85                  90                  95
Gly Gly Pro Ala Arg Pro Val Trp Arg Pro Thr Ala Val Val Gly Gly
            100                 105                 110
Gly Tyr Pro Gly Glu Phe Cys Ala Gly Val Asp Ile Trp Gly Thr Gly
        115                 120                 125
Arg Arg Arg Arg Gly Arg Arg Arg Ala Arg Cys Ala Gly Val Ala Ser
    130                 135                 140
Ala Gly Ser Leu Cys Gly
145                 150
```

<210> 31484
<211> 290

<212> PRT
<213> A.fumigatus

<400> 31484
Ile Arg Ile Ser Pro Ser Ala Lys Glu Val Ser Gln His Thr Trp Cys
1 5 10 15
Leu Thr Glu Ser Val Trp Pro Ser Val Ile Tyr Ile Phe Val Asn Gly
20 25 30
Val Glu Leu Tyr Val Arg Arg Lys Phe His Asn Gly Lys Asp Ile Pro
35 40 45
Leu Asp Ile Ser Gly His Leu Lys Glu Gly Leu Asn Thr Ile Ser Leu
50 55 60
His Phe Leu Arg Ser Ala Ala Glu Ser Arg Asp Val Val Tyr Ala Leu
65 70 75 80
Ala Val Glu Val Met Asp Ile Leu Ser Phe Ala Gln Val Lys Lys Leu
85 90 95
Ala Gln Thr Leu Pro Ala Pro Gln Ser Arg Glu Arg Ile Cys Arg Arg
100 105 110
Leu Ser Ser Ser Ala Ala Asp Asp Glu Leu Ser Ile Ile Ser Asp Tyr
115 120 125
Leu Ala Val Asn Leu Val Asp Pro Phe Met Ala Arg Ile Phe Asn Ile
130 135 140
Pro Ala Arg Gly Ile Thr Cys Glu His Val Glu Cys Phe Asp Leu Glu
145 150 155 160
Thr Tyr Ile Leu Thr Arg Ala Ser Lys Ala Gly Lys Ala Val Leu Lys
165 170 175
Glu Asn Trp Arg Cys Pro Ile Cys Gly Ala Asp Ala Arg Pro Gln His
180 185 190
Leu Ile Ile Asp Gly Phe Leu Ser Glu Val Arg Ala Glu Leu Val Arg
195 200 205
Thr Gly Cys Leu Glu Gly Ala Arg Ala Ile Arg Ile Lys Ala Asp Gly
210 215 220
Ser Trp Glu Leu Lys Ser Asp Gly Asp Val Thr Ser Ser Glu Arg Glu
225 230 235 240
Leu Ala Arg Val Gln Glu Ser Ser Ser Leu Lys Arg Lys Arg Glu Gly
245 250 255
Val Val Ser Pro Leu Ala Thr Gln Arg Pro Lys Thr Glu Gly Ala Gly
260 265 270
Arg Glu Ser Leu Ala Ser Arg Glu Ser Ser Ala Ser Leu Val Ile Glu
275 280 285
Leu Asp
290

<210> 31485
<211> 1073
<212> PRT
<213> A.fumigatus

<400> 31485
Arg Arg Asp Leu Ala Cys Arg Leu Leu Cys Val Leu Met Leu Asp Arg
1 5 10 15
Phe Gly Asp Tyr Ile Ser Asp Asn Val Val Ala Pro Ile Arg Glu Thr
20 25 30
Val Gly Gln Thr Leu Gly Ala Leu Leu Ser Gln Leu Pro Ser Arg Ser
35 40 45
Val Ile Ser Val Tyr Lys Cys Leu Tyr Arg Ile Ile Met Gln Thr Asp

```
    50                  55                  60
Leu Gly Leu Glu Arg Pro Ile Trp Glu Val Cys His Gly Gly Met Ile
65                  70                  75                  80
Gly Leu Arg Tyr Leu Val Ala Val Arg Lys Asp Leu Leu Ile Lys Asp
                85                  90                  95
Ser Lys Leu Met Asp Gly Val Leu Glu Ala Val Met Lys Gly Leu Gly
            100                 105                 110
Asp Tyr Asp Asp Asp Val Arg Ala Val Ser Ala Ala Thr Leu Val Pro
        115                 120                 125
Ile Ala Glu Glu Phe Val Lys Thr Arg Gln Ser Thr Leu Gly Thr Leu
    130                 135                 140
Met Thr Ile Val Trp Asp Cys Leu Ser Asn Leu Gln Asp Asp Leu Ser
145                 150                 155                 160
Ala Ser Thr Gly Ser Val Met Asp Leu Leu Ala Lys Leu Cys Thr Phe
                165                 170                 175
Gln Glu Val Leu Asp Ala Met Lys Ala Asn Ala Ala Val Asn Pro Glu
            180                 185                 190
Ser Ser Phe Gly Lys Leu Val Pro Arg Leu Tyr Pro Phe Leu Arg His
        195                 200                 205
Thr Ile Thr Ser Val Arg Ser Ala Val Leu Arg Ala Leu Met Thr Phe
    210                 215                 220
Leu Gln Leu Glu Gly Glu Gly Thr Asp Glu Trp Val Asp Gly Lys Thr
225                 230                 235                 240
Val Arg Leu Ile Phe Gln Asn Leu Leu Val Glu Arg Asn Glu Gly Val
                245                 250                 255
Leu Lys Gln Ser Leu Gln Val Trp Ser Glu Leu Leu Asn Ser Leu Glu
            260                 265                 270
Thr Arg Gly Ser Phe Lys Ser Glu Ser Asp Leu Leu Ser His Ile Lys
        275                 280                 285
Pro Leu Ile Thr Leu Ser Met Gly Pro Phe Gly Val Pro Arg Tyr Pro
    290                 295                 300
Val Pro Met Asp Ala Ser Leu Phe Ile Lys Pro Ser Gly Leu Pro Phe
305                 310                 315                 320
Pro Ser Ser Ala Ala Ala Pro Ala Arg Ser Ser Pro Ala Ser Asn Thr
                325                 330                 335
Pro Glu Gly Thr Lys Gly Arg Arg Arg Lys Ser Glu Lys Lys Glu Ala
            340                 345                 350
Pro Pro Pro Ser Ala His Asn Val Asp Gly His Met Leu Gln Gly Asp
        355                 360                 365
Ile Asp Leu Val Gly Ala Asp Thr Met Leu Arg Ser Lys Ile Tyr Ala
    370                 375                 380
Ala Arg Ala Leu Gly Gln Leu Leu Phe Val Trp Asp Gln Asn Gln Leu
385                 390                 395                 400
Pro Ser Leu Trp Gln Ser Ile Leu Glu Gly Leu Asn His Ser Ala Ser
                405                 410                 415
Thr Ser Gln Leu Ala Ser Ala Met Ile Val Glu Glu Tyr Ala Lys Leu
            420                 425                 430
Ser Gly Pro Ser Gly Arg Tyr Ala Ser Thr Leu Cys Glu Asn Leu Arg
        435                 440                 445
Pro Ile Ile Glu Gly Glu Arg Pro Pro Trp Tyr Ser Asp Ile Ala Cys
    450                 455                 460
Tyr Leu His Val Ala Arg Ala Gln Cys His Ser Leu Leu Asn Thr Phe
465                 470                 475                 480
Arg Asp His Ala His Val Pro Gly Ser Arg Leu Pro Val Leu Ala Val
                485                 490                 495
Ile Val Gln Gly Asp Pro Glu Ala Gly Pro Asn Ala Phe Ser Leu Ser
```

```
                500                 505                 510
Asp Ala Glu Lys Val Ile Gly Pro Asp Phe Glu Arg Leu Lys Lys Gly
        515                 520                 525
Leu Thr Pro Ala Gln Arg Ile Thr Ala Leu Gln Val Leu Asn Asp Thr
    530                 535                 540
Arg Ala Thr Ala Glu Ser Ala Val Asn Glu Ala Arg Asn Val Arg Glu
545                 550                 555                 560
Gln Arg Asp Leu Arg Val Arg Ala Ala Ala Ala Gly Ala Leu Val Ala
                565                 570                 575
Leu Ser Asp Ile Pro Lys Lys Pro Ser His Ile Ile Lys Gly Met Met
            580                 585                 590
Asp Ser Ile Lys Lys Glu Glu Asn Ala Glu Leu Gln Gln Arg Ser Ala
        595                 600                 605
Thr Ala Ile Thr Ser Leu Val Glu Tyr Tyr Thr Thr Ser Ala Lys Arg
    610                 615                 620
Gly Pro Val Asp Lys Val Ile Gly Asn Leu Val Lys Tyr Cys Cys Val
625                 630                 635                 640
Asp Thr Ser Glu Thr Pro Glu Phe His His Asn Ala Met Leu Glu Lys
                645                 650                 655
Ser Ile Leu Ser Leu Arg Lys Glu Glu Asp Arg Arg Asp His Pro Asp
            660                 665                 670
Ala Ala Lys Phe Glu Arg Glu Ala Lys Glu Ala Arg Ile Met Arg Arg
        675                 680                 685
Gly Ala Lys Glu Ala Leu Glu Gln Leu Ala Val Lys Phe Gly Ser Glu
    690                 695                 700
Leu Met Ala Lys Val Pro Asn Leu Ala Ser Leu Ile Glu Arg Pro Leu
705                 710                 715                 720
Lys Glu Ala Leu Ala Ala Asp Glu Leu Pro Ala Asn Ile Arg Asp Pro
                725                 730                 735
Glu Asn Glu Leu Gly Gln Glu Val Val Asp Gly Leu Ser Thr Leu Arg
            740                 745                 750
Ala Ile Leu Pro Lys Phe His Ser Gly Leu Tyr Pro Trp Val Val Asp
        755                 760                 765
Leu Leu Pro Leu Val Val Lys Ala Leu Gln Cys Lys Leu Ser Val Ile
    770                 775                 780
Arg Tyr Ala Ala Ala Lys Cys Phe Ala Thr Ile Cys Ser Val Ile Thr
785                 790                 795                 800
Val Glu Gly Met Thr Met Leu Val Glu Lys Val Leu Pro Met Ile Asn
                805                 810                 815
Asp Ala Leu Asp Val His His Arg Gln Gly Ala Val Glu Cys Ile Tyr
            820                 825                 830
His Leu Ile His Val Met Glu Asp Gly Ile Leu Pro Tyr Val Ile Phe
        835                 840                 845
Leu Val Val Pro Val Leu Gly Arg Met Ser Asp Ser Asp Asn Glu Val
    850                 855                 860
Arg Leu Leu Ala Thr Thr Ser Phe Ala Thr Leu Val Lys Leu Val Pro
865                 870                 875                 880
Leu Glu Ala Gly Ile Pro Asp Pro Pro Gly Leu Ser Glu Glu Leu Leu
                885                 890                 895
Lys Gly Arg Asp Arg Glu Arg Gln Phe Met Ala Gln Met Leu Asp Val
            900                 905                 910
Arg Lys Val Glu Glu Phe Lys Ile Pro Val Ala Ile Lys Ala Glu Leu
        915                 920                 925
Arg Pro Tyr Gln Gln Glu Gly Val Asn Trp Leu Ala Phe Leu Asn Arg
    930                 935                 940
Tyr Asn Leu His Gly Ile Leu Cys Asp Asp Met Gly Leu Gly Lys Thr
```

945 950 955 960
Leu Gln Thr Ile Cys Ile Val Ala Ser Asp His His Met Arg Ala Glu
965 970 975
Glu Phe Ala Arg Thr Gln Lys Pro Glu Val Arg Lys Leu Pro Ser Leu
980 985 990
Ile Val Cys Pro Pro Ser Leu Ser Gly His Trp Gln Gln Glu Leu Lys
995 1000 1005
Gln Tyr Ala Pro Phe Leu Asn Cys Val Ala Tyr Val Gly Pro Pro Ala
1010 1015 1020
Glu Arg Ser Arg Leu Gln Ser Ala Leu Pro Asn Ala Asp Ile Val Val
1025 1030 1035 1040
Thr Ser Tyr Asp Ile Cys Arg Asn Asp Asn Glu Val Leu Asn Pro Ile
1045 1050 1055
Asn Trp Asn Tyr Cys Val Leu Asp Glu Gly His Leu Ile Lys Asn Pro
1060 1065 1070
Lys

<210> 31486
<211> 251
<212> PRT
<213> A.fumigatus

<400> 31486
Arg Asp Leu Tyr Ser Arg Pro Thr Val Arg Gln Thr His His Gln Arg
1 5 10 15
Pro Gly Leu Gln Ser Ser Pro Cys Asn Ser Pro Arg His Pro Thr Arg
20 25 30
Ser Leu Pro Gly Leu Leu His Ser Phe Arg His Leu Pro Leu Leu Ala
35 40 45
Ile Gln Glu Tyr Pro His Asn His His Asp His Leu Pro Leu Pro His
50 55 60
Pro Asp Arg Arg Leu Ser Thr Leu Ala Ala Ala Pro Asn Glu Ser Leu
65 70 75 80
Arg Ser Pro Leu Arg Leu Leu His Arg Met Ser Thr Thr Pro Phe Phe
85 90 95
Gly Cys Ile Leu Thr Lys Gln Ile Ala Ser Tyr Val Thr Ser Leu Val
100 105 110
Leu Cys Leu Gln Met Pro Ser Ser Asn Thr Gly Gly Tyr Thr Lys Arg
115 120 125
Val Thr Ala Thr Ala Leu Val Phe Ile Ala Tyr Cys Leu Gly Asn Ile
130 135 140
Val Gly Pro His Ala Phe Leu Ala Arg Glu Ala Pro Val Tyr Glu Thr
145 150 155 160
Gly Cys Lys Leu Ile Leu Ala Cys Ala Leu Gly Gln Met Ala Cys Thr
165 170 175
Val Ala Leu Arg Val Leu Leu Ser Arg Arg Asn Lys Arg Arg Asp Ala
180 185 190
Glu Gly Val Ala Pro Ala Glu Gly Asp Ala Asp Glu Gln Ile Leu Ala
195 200 205
Asp Leu Thr Asp Phe Glu Val Cys Val Leu Cys Cys Ala Val Leu His
210 215 220
Ala Ser Gly Gly Ala Val Ala Asp Gly Gly Arg Ile Leu Ala Phe Asp
225 230 235 240
Met Phe Cys Arg Leu Gly Gln Asp Gly Leu Trp
245 250

<210> 31487
<211> 139
<212> PRT
<213> A.fumigatus

<400> 31487
Ser Gly Thr Lys Ser Glu Arg Leu Ser Leu Ile Pro Lys Ser Gly Ser
1 5 10 15
Ser Ser Phe Leu Ser Cys Ser Thr Arg Arg Leu Thr Glu Val Trp Leu
20 25 30
Met Tyr Val Ser Leu Leu His Ser Glu Ile Ser Thr His Ala Leu Gln
35 40 45
Phe Gly Lys Leu Ile Ile Lys Gly Leu Val Ser Ser Pro Leu Leu Ala
50 55 60
Thr Ala Leu Gly Ile Pro Gln Gly Ala Phe Gln Val Phe Phe Ile Leu
65 70 75 80
Ser Gly Thr Tyr Leu Ser Ser Arg Phe Lys Asn Ile Arg Thr Ile Ile
85 90 95
Met Ile Ile Tyr Leu Phe Pro Thr Leu Ile Gly Val Cys Leu Leu Trp
100 105 110
Gln Leu Pro Arg Thr Asn Arg Tyr Gly Val Leu Phe Gly Tyr Tyr Ile
115 120 125
Val Cys Gln Gln Pro Leu Phe Leu Gly Ala Tyr
130 135

<210> 31488
<211> 92
<212> PRT
<213> A.fumigatus

<400> 31488
Arg Arg Gln Asp Arg Arg His Pro Arg Asn Arg Pro Gly Lys Glu Asp
1 5 10 15
Asp Ile Glu Asn Gly His Ile Ser Ser Leu Asp Glu Ala Glu Leu Phe
20 25 30
Leu Arg Glu His Gly Ile Ser His Ser Gln Leu Gln Glu Met Leu Asp
35 40 45
Asp Pro Ala Lys Ser Arg Lys Ile Arg Arg Arg Val Asp Leu Ile Leu
50 55 60
Leu Pro Leu Leu Cys Gly Thr Tyr Val Leu Gln Tyr Ile Asp Lys Gln
65 70 75 80
Val Lys Val Ser Cys Thr Ser Glu Gln Thr Thr Tyr
85 90

<210> 31489
<211> 114
<212> PRT
<213> A.fumigatus

<400> 31489
Tyr Ser Trp Ile Phe His Asp Ile Ser Asp Asn Leu Lys Leu Gly Gly
1 5 10 15
Leu Ile Ser Phe Ala Ile Gly Gln Leu Asn Gly Phe Pro Val Trp Arg
20 25 30
Ala Val Phe Leu Ile Cys Gly Gly Val Thr Val Leu Trp Gly Gly Ile

```
        35                  40                  45
Leu Leu Leu Tyr Leu Pro Asn Ser Ile Leu Ser Ala Lys Arg Phe Thr
    50                  55                  60
Ile Glu Glu Lys Ile Leu Leu Ile Gly Arg Gly Lys Gln Asn Gln Thr
65                  70                  75                  80
Val Cys His Phe Pro Gln Cys Gln Cys Thr Glu Cys Ser Leu Ile Leu
                85                  90                  95
Pro Gly Tyr Ser Gln Pro Leu Asn Lys Val Val Pro Asn Pro Arg Gly
            100                 105                 110
Phe Pro
```

<210> 31490
<211> 61
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (21)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31490

```
Gly Asp Cys Tyr Ser Val Pro Asp Tyr Asn Thr Lys His Ser Ala Arg
1               5                   10                  15
Ile Ser Pro Gln Xaa Glu Ala Phe Leu Pro Leu Asn Ala Thr Phe Ala
            20                  25                  30
Ser Thr Ser Thr Ala Leu Met Arg Thr Ser Glu Leu Tyr Ser Ser Pro
        35                  40                  45
Asp Phe Thr Arg Gly Leu Ser Tyr Leu Ile Ala Tyr Arg
    50                  55                  60
```

<210> 31491
<211> 213
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (2),(11)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31491

```
Gln Xaa Gln Gln Ser Thr Pro Gly Leu Leu Xaa Ala Ser Gly Leu Leu
1               5                   10                  15
His Gly Pro His Asn Leu His Pro Gln Gln His His Gly Ser Gly Pro
            20                  25                  30
Gly His Phe Glu Asp His His Arg Met Gln Met Ser Ala Ser Thr Ser
        35                  40                  45
Gln Ile Phe Pro Ser Pro Arg Leu Gln His Gly Tyr Pro Ser Pro Met
    50                  55                  60
Ala Pro His Ala Gln Leu Ala Phe Gly Gln Pro Val Pro Gln Phe Tyr
65                  70                  75                  80
Val Asn Gln Gly Gly Pro Gln Pro Ala His Leu Arg Pro Phe Pro Gly
                85                  90                  95
Ala Pro Gln Phe Val Asn Pro Gln Thr Gly Met Gly Ala Pro Met Met
```

```
            100                 105                 110
Val Gln Gln Pro Ser Ser Gly Pro Tyr Met Gly Gly Pro Gln Gly Met
        115                 120                 125
Thr Pro Tyr Ala Pro Gln Met Gln Met Tyr Ser Pro Asn Pro Gly His
    130                 135                 140
Ala Tyr Pro Gln His Ala Pro Pro Pro Gln Pro His Ser Gly Tyr Pro
145                 150                 155                 160
Ser Pro Ser Arg Gly Ala Pro Met Met Met His Gln Asn Ser Gln Pro
                165                 170                 175
Gly Gln Leu Pro Gln Pro Val Met Phe Met Ser Pro Gly Gln His Gly
            180                 185                 190
Gln Pro Val Tyr Ala Ala Gln Gln Pro Gly His Ser Met Phe Phe Thr
        195                 200                 205
Val Val Gly Pro Ser
    210
```

<210> 31492
<211> 444
<212> PRT
<213> A.fumigatus

<400> 31492

```
Thr Asp Phe Gly Val Ala Tyr Ser Arg Leu Trp Gly Asn Pro Ser His
1               5                   10                  15
Leu Asp Tyr Leu Thr Ala Ser Leu Arg Glu Arg Tyr Gly Glu Asp Arg
            20                  25                  30
Leu Tyr Ile Leu Ala Ala Lys Gly Asn Ser Gly Asn Phe Thr Tyr Asp
        35                  40                  45
Gly Ile Glu Leu Gly Gly Glu Arg Leu Ala His Glu Ile Glu Asp Thr
    50                  55                  60
Leu Gly Ala Leu Asp Ala Glu Gly Thr His Ile Lys Lys Leu Ser Val
65                  70                  75                  80
Ile Gly Tyr Ser Leu Gly Gly Leu Val Ala Arg Tyr Ala Leu Gly Leu
                85                  90                  95
Leu His Ala Arg Gly Trp Phe Asp Lys Leu Glu Pro Val Asn Phe Thr
            100                 105                 110
Thr Phe Val Ser Pro His Val Gly Val Arg Met Pro Leu Lys Gly Ile
        115                 120                 125
Arg Asp His Ile Phe Asn Gly Leu Gly Ala Arg Thr Leu Ser Met Ser
    130                 135                 140
Gly Arg Gln Met Phe Met Val Asp Glu Phe Arg Asp Thr Gly Arg Pro
145                 150                 155                 160
Leu Leu Ser Ile Leu Ala Asp Pro Asp Ser Ile Phe Met Lys Ala Leu
                165                 170                 175
Ala Lys Phe Arg Asn Arg Ser Val Tyr Ala Asn Ile Val Asn Asp Arg
            180                 185                 190
Ser Thr Ala Phe Phe Thr Thr Ala Leu Ser Thr Thr Asn Pro Phe Gln
        195                 200                 205
Asp Leu Glu Asn Val Asn Val Asn Tyr Val Lys Gly Tyr Glu Pro Val
    210                 215                 220
Val Ile Asp Pro Asp Asp Tyr Phe Leu Pro Pro Lys Lys Gln Glu Pro
225                 230                 235                 240
Pro Ser Phe Phe Ser Arg Leu Trp Gln Asn Ile Lys Gly Thr Leu Thr
                245                 250                 255
Gln Val Ala Ile Ser Leu Leu Val Val Val Phe Val Pro Ile Gly Val
            260                 265                 270
```

```
Val Leu Tyr Leu Val Asn Ala Ala Val Gln Thr Tyr Arg Ser His Arg
        275                 280                 285
Arg Ile Arg Leu His Glu Asp Gly Lys Ala Gly Val Leu Ile Ser Asn
    290                 295                 300
Tyr Arg Val Pro Val Ile Val Lys Asp Met Gln Ser Ala Val Glu Asp
305                 310                 315                 320
Ala Phe Glu Ser Ala Thr Ala Met Gln Asp Pro Ala Tyr Leu Ser Asn
                325                 330                 335
Ala Arg Thr Arg Ala Gly Lys Lys Glu Ser Leu Pro Gln Thr Pro Ala
            340                 345                 350
Val Ser Lys Thr Gly Ala Leu Glu Asn Gln Thr Cys Thr Leu Asp Glu
        355                 360                 365
Thr Ser Ser Ala Leu Pro Asp Gln Lys Arg Asp Ala Thr Leu Ala Leu
    370                 375                 380
Thr Pro Ala Gln Phe Ser Ile Ile Glu Ser Leu Asn Ser Val Gly Phe
385                 390                 395                 400
Arg Lys Tyr Pro Val Trp Ile His Asn His Ser His Ser His Ala Ala
                405                 410                 415
Ile Ile Val Arg Met Ala Lys Lys Gly Phe Glu Glu Gly Lys Val Val
            420                 425                 430
Val Lys His Trp Leu Asp Asn Glu Phe Asp Ile Glu
        435                 440
```

<210> 31493
<211> 60
<212> PRT
<213> A.fumigatus

<400> 31493

```
Lys Ser Leu Ala Ala Arg Ser Arg Phe Ser Tyr Leu Gly Leu Trp Val
1               5                   10                  15
Gln Phe Val Glu Asp Phe Ser Leu Lys Ser Lys Phe Thr Asp Val Tyr
            20                  25                  30
Trp Ala Ala Ser His Thr Lys Leu His Met Pro His Ser Leu Gly Leu
        35                  40                  45
Met Asn Glu Leu Leu Glu Cys Ser Tyr Cys Ser Ser
    50                  55                  60
```

<210> 31494
<211> 290
<212> PRT
<213> A.fumigatus

<400> 31494

```
Arg His Gln Asp Thr Gln Val Asn Trp Ala Phe Leu Thr Pro Ser Thr
1               5                   10                  15
Ala Arg Ser Leu Asn Pro Ala Asp Val Pro Leu Leu Thr Thr Leu Val
            20                  25                  30
Leu Gly Gly Glu Ala Val Thr His Glu Ser Val Glu Val Trp Ala Lys
        35                  40                  45
Gly Arg Ser Leu Ile Asn Gly Tyr Gly Pro Ala Glu Ala Thr Ile Cys
    50                  55                  60
Gly Val Gly Asn Ile Pro Glu Ala Gly Trp Lys Ser Gly Val Val Gly
65                  70                  75                  80
Arg Ile Ile Gly Gly Leu Gly Trp Val Thr Val Pro Ser Asp Pro Asn
                85                  90                  95
```

```
Arg Leu Ala Ala Val Gly Ala Val Gly Glu Leu Leu Leu Glu Gly Pro
            100                 105                 110
Phe Leu Ala Arg Gly Tyr Leu Asn Leu Pro Glu Val Thr Lys Ala Ala
        115                 120                 125
Phe Ile Asp Pro Pro Ser Trp Arg Thr Arg Ile Pro Ala Pro Ser Pro
    130                 135                 140
Tyr Ser Phe Leu Tyr Arg Thr Gly Asp Leu Val Arg Tyr Gln Pro Asp
145                 150                 155                 160
Gly Ser Ile Gln Tyr Val Gly Arg Lys Asp Ser Arg Val Lys Leu Arg
                165                 170                 175
Gly Gln Leu Val Asp Leu Gly Ala Val Glu Ala Ser Val Met Arg Val
            180                 185                 190
Tyr Pro Ala Ala Gly Gln Val Val Ala Asp Val Leu Val Ser Glu Asn
        195                 200                 205
Thr Ala Arg Leu Thr Ala Met Val Lys Leu Gly Pro Ser Val Thr Glu
    210                 215                 220
Asn His Asp Gly Pro Met Phe Ala Ala Pro Asp Leu Val Phe Asn Glu
225                 230                 235                 240
Ala Ala Ala Ser Ile Gln Ala Arg Leu Arg Ala Ile Val Pro Ala Tyr
                245                 250                 255
Met Val Pro Ser Met Phe Ile Ser Leu Arg Asp Ile Pro Gly Thr Leu
            260                 265                 270
Thr Gly Lys Asn Gly Ser Ala Ser Ala Ser Gln Thr Lys Tyr Phe Ile
        275                 280                 285
Ile Thr
    290
```

<210> 31495
<211> 541
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (19)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31495

```
Ala Ser Arg Thr Lys Lys Pro Met Phe Asp Asp Asn Glu Arg Gly Phe
1               5                   10                  15
Gln Glu Xaa Gly Ala Glu Leu Phe Lys Leu Pro Cys Glu Ala Ile Gly
            20                  25                  30
Arg Glu Asp Ser Phe Tyr Ser Leu Gly Gly Glu Ser Leu Ala Thr Met
        35                  40                  45
Lys Met Val Ala Leu Ala Arg Arg Val Gly Phe Met Phe Ala Val Thr
    50                  55                  60
Asp Val Met Asn Asn Thr Ser Leu Ser Thr Leu Ala Arg Ser Arg His
65                  70                  75                  80
Leu Ile Thr Glu Gln Ala Ile Leu Thr Ser Ser Pro Ser Leu Ser Leu
                85                  90                  95
Pro Thr Ile Glu Gly Glu Ser Leu Gln Glu Ile Leu Arg Pro Leu Leu
            100                 105                 110
Asn Ala Gly His Ile Gln Gly Gly Asn Asp Ile Ala Ala Ile His Pro
        115                 120                 125
Val Thr Ala Ala Gln Ala Phe Leu Val Gln Arg Tyr Pro Trp Ser His
    130                 135                 140
```

```
Phe Gln Phe Asp Leu Ser Gly Ala Val Ser Pro Ser Lys Leu Gln Thr
145                 150                 155                 160
Ala Cys Thr Ala Leu Met Ala Arg Phe Thr Ile Leu Arg Thr Val Phe
                165                 170                 175
Val Glu His Ala Gly Cys Leu Leu Gln Leu Val Leu Arg Glu Val Pro
            180                 185                 190
Asn Arg Val His Glu Ile Thr Thr Asn Glu Pro Leu Asp Asp Phe Cys
        195                 200                 205
Asn Ser Val Cys Gln Gln Gln Gln Asp Val Cys Val Val Asn Ser Thr
    210                 215                 220
Thr Leu Pro Thr Leu Phe Thr Leu Val Ser Asn Arg Gln Leu Asn Arg
225                 230                 235                 240
His Arg Leu Leu Leu Arg Leu Ala His Ala Gln Tyr Asp Leu Thr Thr
                245                 250                 255
Ile Pro Leu Ile Val Gln Ser Leu Ala Asp Glu Tyr Asn Arg Thr Leu
            260                 265                 270
Arg Ser Gly Phe Ser Ala Asp Phe Gly Tyr Tyr Leu Ser His His Lys
        275                 280                 285
Arg Gln Asn Asn Asp Asp Arg Ser His Asn Phe Trp Lys Arg Tyr Leu
    290                 295                 300
Ser Gly Ser Ser Met Met Ser Thr Asn Gln Thr Ala Asp Pro Thr Thr
305                 310                 315                 320
Val Gln Glu Arg Val Phe His Val Thr Gly Ser Cys Ile Ile Ile Pro
                325                 330                 335
Thr Ser His Pro Pro Asp Ile Thr Ile Ala Thr Ala Val Lys Ala Ala
            340                 345                 350
Val Cys Leu Val Leu Ala Ala Arg Thr Gly Cys Lys Asp Ile Val Ile
        355                 360                 365
Gly Gln Thr Val Asp Ala Arg Cys Ser Ser Ala Asp Ser Thr Leu Asp
    370                 375                 380
Gln Ile Val Gly Pro Cys Thr Asn Tyr Ile Pro Tyr Arg Leu Ser Val
385                 390                 395                 400
Cys Cys Ser Lys Thr Ala Leu Glu Tyr Leu Arg Ser Ala Gln Ala Gln
                405                 410                 415
His Thr Thr Cys Leu Arg Tyr Ser Ser Leu Asp Phe Asp Gln Ile Val
            420                 425                 430
Ala Lys Cys Thr Ser Trp Pro Ser Ser Thr Gln Phe Gly Tyr Ile Val
        435                 440                 445
Gln His Gln Asp Thr Gly Ala Glu Leu Ala Leu Thr Leu Gly Gly Asp
    450                 455                 460
Thr Thr Ser Leu Pro Met Thr Ser Tyr Gly Arg Val Phe Pro Gln Gly
465                 470                 475                 480
Glu Val Trp Ile Gly Ser Thr Pro Cys Ser Thr Gly Leu Arg Ile Asp
                485                 490                 495
Val Ile Ala Leu Ser Ala Val Leu Ser Gln Lys Asp Ala Gln Thr Met
            500                 505                 510
Ala Glu Glu Val Gly Ala Ala Leu Glu Lys Leu Leu Gly Cys Gly Tyr
        515                 520                 525
Arg Arg Leu Ser His Leu Ile Gly Asn Thr Phe Ala Thr
    530                 535                 540
```

<210> 31496
<211> 524
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (521)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31496

```
Lys Asp Leu Gly Arg Arg Asp Met Asp Leu Gln Ser Val Gln Asp Leu
1               5                  10                  15
Lys Gly Val Leu Arg Arg Asp Phe Phe His Gly Tyr Ala Thr Ala Ala
            20                  25                  30
Ala Gln Val Glu Gly Ala Trp Asn Lys Asp Gly Lys Gly Gln Ser Ile
        35                  40                  45
Trp Asp Thr Phe Ala His Thr Pro Gly Lys Val Lys Asp Gly Ser Thr
    50                  55                  60
Gly Asp Asp Ala Val Arg Ser Tyr Asp Leu Tyr Lys Glu Asp Val Ala
65                  70                  75                  80
Leu Met Lys Ser Tyr Gly Val Asn Ala Tyr Arg Phe Ser Leu Ser Trp
                85                  90                  95
Ser Arg Ile Ile Pro Leu Gly Gly Cys Asp Asp Leu Val Asn Glu Lys
            100                 105                 110
Gly Ile Glu Tyr Tyr Ser Asn Leu Val Asp Glu Leu Leu Arg Asn Gly
        115                 120                 125
Ile Thr Pro Phe Val Thr Leu Phe His Trp Asp Thr Pro Gln Ser Leu
    130                 135                 140
Glu Asp Arg Tyr Gly Gly Met Leu Asn Gln Glu Lys Phe Val Pro Asp
145                 150                 155                 160
Phe Val Asn Tyr Ala Arg Val Cys Phe Glu Arg Leu Gly Asp Arg Val
                165                 170                 175
Lys His Trp Ile Thr Phe Asn Glu Pro Gly Val Tyr Thr Leu Ala Gly
            180                 185                 190
Tyr Ala Ala Gly Val His Ala Pro Gly Arg Ser Ser Phe Arg Asp Arg
        195                 200                 205
Asn Glu Glu Gly Asp Ser Ser Thr Glu Pro Phe Ile Val Ala His Thr
    210                 215                 220
Glu Leu Val Ala His Gly His Val Ser Arg Leu Tyr Lys Gln Glu Phe
225                 230                 235                 240
Gln Pro His Gln Gln Gly Thr Ile Gly Ile Thr Leu His Gly Asn Trp
                245                 250                 255
Ser Glu Pro Trp Asp Glu Ala Asp Pro Leu Asp Gln Ala Ala Ala Glu
            260                 265                 270
Arg Ala Arg Glu Phe Glu Ile Ala Trp Phe Ala Asp Pro Leu Tyr Lys
        275                 280                 285
Thr Gly Asp Tyr Pro Ala Ser Met Arg Ala Gln Leu Gly Asp Arg Leu
    290                 295                 300
Pro Lys Phe Thr Pro Glu Glu Ser Lys Leu Val Leu Gly Ser Ser Glu
305                 310                 315                 320
Phe Tyr Gly Met Asn Ser Tyr Thr Thr Phe Phe Val Lys His Lys Thr
                325                 330                 335
Thr Pro Ala Asp Ile Asn Asp His Lys Gly Asn Val Glu Ile His Asp
            340                 345                 350
Phe Asn Lys His Gly Ile Pro Arg Gly Glu Glu Ser Asp Thr Glu Trp
        355                 360                 365
Leu Arg Ala Ala Pro Trp Gly Phe Arg Lys Leu Leu Asn Trp Ile Trp
    370                 375                 380
Ser Arg Tyr Gln Met Pro Ile Tyr Val Thr Glu Asn Gly Thr Thr Ala
385                 390                 395                 400
```

```
Lys Gly Glu Thr Ala Pro Ser Pro Ser Val Leu Asn Asp Gln Phe Arg
                405                 410                 415
Ile Arg Phe Phe Glu Gly Tyr Val Gly Trp Ala Leu Ala Arg Ala Val
            420                 425                 430
Lys Glu Asp Gly Ile Asp Ile Arg Ser Tyr Phe Ala Trp Thr Phe Thr
        435                 440                 445
Asp Asn Trp Gly Lys Phe Phe Phe Arg Leu Ser Ser Lys Cys Asn Ala
    450                 455                 460
Glu Asp Gly Thr Glu Trp Ala Ala Gly Tyr Thr Asp Arg Phe Gly Cys
465                 470                 475                 480
Thr Phe Ile Asp Phe Asp Ser Pro Glu Lys Thr Arg Tyr Pro Lys Gln
                485                 490                 495
Ser Ala Tyr Tyr Leu Asp Asn Leu Phe Lys His Leu Ile Lys Gly Ser
            500                 505                 510
Ser Pro Gly Val Glu Gly Arg Ala Xaa Leu Ile Ser
        515                 520
```

<210> 31497
<211> 143
<212> PRT
<213> A.fumigatus

<400> 31497

```
Thr Arg Lys Ser Leu Cys Arg Thr Leu Ser Ile Thr Leu Val Phe Ala
1               5                   10                  15
Ser Arg Asp Ser Ala Ile Ala Ser Ser Ile Gly Ser Arg Ser Thr Asn
            20                  25                  30
Leu Val Ser Ile Arg Trp Leu Asp Met Gln Arg Ala Ser Thr His Arg
        35                  40                  45
Ala Gly Leu His Ser Gly Thr Ala Thr Arg Arg Ala Thr Arg Pro Pro
    50                  55                  60
Ser His Ser Ser Leu Arg Thr Arg Ser Trp Ser Pro Thr Gly Thr Cys
65                  70                  75                  80
Pro Val Ser Thr Ser Lys Ser Ser Ser Pro Ile Ser Lys Gly Pro Ser
                85                  90                  95
Ala Ser Arg Phe Thr Gly Thr Gly Pro Ser His Gly Met Lys Pro Thr
            100                 105                 110
Arg Trp Ile Lys Arg Pro Leu Ser Ala Arg Ala Ser Ser Arg Leu Pro
        115                 120                 125
Gly Ser Arg Thr Arg Ser Thr Arg Arg Val Thr Ile Arg Pro Arg
    130                 135                 140
```

<210> 31498
<211> 341
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (46),(50),(87),(147)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31498

```
Phe Gly Ile Arg Gly Arg Asn Trp Glu Gln Arg Gln Arg Arg Pro Arg
1               5                   10                  15
Lys Gly Gln Leu Ala Gly Glu Ala Met Gly Lys Thr Asp Asn Lys Gly
```

```
            20                  25                  30
Glu Trp Gln Pro Glu Glu Gly Gly Ser Phe Arg Ala Ile Xaa Val Thr
        35                  40                  45
Phe Xaa Lys Gln Tyr Ile Phe Ile Asp Trp Val Lys Val Leu Met Met
    50                  55                  60
His Asp Pro Tyr Phe Trp Gly Leu Val Glu Ser Ala Pro Ala Arg Pro
65                  70                  75                  80
Phe Pro Phe Thr Tyr Phe Xaa Leu Pro Thr Ile Pro Asp Ile Val Val
                85                  90                  95
Arg Leu Tyr Arg Glu Ile Leu Ser Gly Leu Gly Val Tyr Ala Ala Leu
            100                 105                 110
Ser Phe Val Cys Pro Leu Asn Pro Ile Ile Phe Leu Gly Leu Ser Leu
        115                 120                 125
Ala Phe Pro Ser Ala Ser Arg Thr Leu Thr Arg Val Pro Leu Asp Ala
    130                 135                 140
Pro Trp Xaa Tyr Ser Asp Pro Phe Gly Pro Phe Leu Gly Pro Tyr Leu
145                 150                 155                 160
Asp His Gly Leu Val Gly Cys Trp Ser Lys Trp Trp His Gln Leu Phe
                165                 170                 175
Arg Phe Gly Phe Thr Ser Thr Gly Asn Phe Leu Leu Ser Leu Leu Pro
            180                 185                 190
Lys His Met Ala Ala Arg Pro Gly Ile Arg Arg Thr Val Met Thr Val
        195                 200                 205
Thr Ala Phe Phe Leu Ser Gly Leu Ile His Ala Ser Gly Ser Tyr Thr
    210                 215                 220
Gln Phe Ala Glu Thr Lys Pro His Thr His Phe Val Phe Phe Cys Leu
225                 230                 235                 240
Gln Pro Val Gly Val Met Ile Gln Asn Gln Leu Ala Arg Ser Ile Asn
                245                 250                 255
Ala Arg Tyr Arg Phe Ser Arg Pro Ile Arg Arg Ala Ala Asn Ala Ile
            260                 265                 270
Phe Ala Leu Trp Trp Leu Met Leu Ser Gly Ala Ser Ile Ala Asp Asp
        275                 280                 285
Phe Ala Arg Gly Gly Leu Trp Leu Thr Glu Pro Leu Pro Ile Ser Pro
    290                 295                 300
Leu Arg Gly Leu Gly Leu Gly Ala Lys Gly Glu Gly Trp Trp Cys Trp
305                 310                 315                 320
Gly Glu Pro Trp Phe Arg Ser Trp Asp Gly Gly Lys Tyr Trp Glu Arg
                325                 330                 335
Gly Leu Arg Val Leu
            340
```

<210> 31499
<211> 224
<212> PRT
<213> A.fumigatus

<400> 31499

```
Ser Ile His Tyr Gln Pro Ser Ile Val Thr Ser Ser Ser Ser Ser Ser
1               5                   10                  15
Ser Ser Ser Ser Val Ser Gly Ser Met Phe Ser Val Gly Ile Ser Ser
            20                  25                  30
Ser Leu Ser Ser Ser Pro Ala Ser Ala Ala Thr Thr Ala Val Pro Asp
        35                  40                  45
Ile Gly Ala Ser Ala Pro Asp Val Ala Ala Cys Ala Met Leu Ile Gly
    50                  55                  60
```

```
Ile Gly Ser Glu Val Ala Val Thr Glu Ala Ala Gly Ile Glu Ile Ala
65                  70                  75                  80
Ala Val Ala Val Asn Glu Val Gly Glu Ala Val Pro Arg Ala Gly Trp
                85                  90                  95
Asp Lys Thr Ala Ser Val Ser Ser Arg Thr Phe Phe Val Cys Thr Ser
            100                 105                 110
Ser Ser Phe Leu Ser Val Arg Leu Ala Ala Gly Ala Ile Gly Ile Pro
        115                 120                 125
Gly Leu Ile Ser Ser Gly Arg Leu Arg Leu Cys Met Asp Gly Ala Gly
    130                 135                 140
Ser Ser Ile Ala Ser Val Met Pro Arg Leu Leu Trp Ile Ile Gly Val
145                 150                 155                 160
Ala Val Gly Leu Arg Asn Pro Val Ser Ser Gly Ala Ala Cys Cys Thr
                165                 170                 175
Ala Ala Val Val Arg Ser Ser Cys Ser Ser Ser Ser Ser Ser Ser Leu
            180                 185                 190
Ser Ser Thr Met Leu Pro Tyr Pro Leu Ile Pro Gly Ala Cys Ile Arg
        195                 200                 205
Thr Gly Ile Leu Gly Leu Ile Ser Pro Ser Thr Ser Ile Ser Val Glu
    210                 215                 220

<210> 31500
<211> 236
<212> PRT
<213> A.fumigatus

<400> 31500
Lys Gly Arg Gly Thr Gly Ser Ser Ile Met Pro Phe Leu Ala Arg Arg
1               5                   10                  15
Tyr Ser Thr Glu Met Glu Val Glu Gly Leu Ile Arg Pro Arg Met Pro
            20                  25                  30
Val Leu Met His Ala Pro Gly Ile Ser Gly Tyr Gly Ser Met Val Asp
        35                  40                  45
Asp Asn Asp Asp Glu Glu Asp Glu Glu Gln Glu Glu Arg Thr Thr Ala
    50                  55                  60
Ala Val Gln His Ala Ala Pro Glu Leu Thr Gly Phe Leu Arg Pro Thr
65                  70                  75                  80
Ala Thr Pro Ile Ile Gln Ser Arg Arg Gly Ile Thr Glu Ala Met Glu
                85                  90                  95
Glu Pro Ala Pro Ser Met His Lys Arg Ser Leu Pro Glu Glu Ile Asn
            100                 105                 110
Pro Gly Met Pro Ile Ala Pro Ala Ala Ser Leu Thr Asp Lys Lys Leu
        115                 120                 125
Asp Asp Val Gln Thr Lys Lys Val Arg Leu Asp Thr Glu Ala Val Leu
    130                 135                 140
Ser Gln Pro Ala Leu Gly Thr Ala Ser Pro Thr Ser Phe Thr Ala Thr
145                 150                 155                 160
Ala Ala Ile Ser Ile Pro Ala Ala Ser Val Thr Ala Thr Ser Glu Pro
                165                 170                 175
Met Pro Met Ser Ile Ala Gln Ala Ala Thr Ser Gly Ala Asp Ala Pro
            180                 185                 190
Met Ser Gly Thr Ala Val Val Ala Ala Glu Ala Gly Asp Asp Asp Ser
        195                 200                 205
Asp Asp Glu Ile Pro Thr Leu Asn Ile Glu Pro Asp Thr Asp Glu Asp
    210                 215                 220
Asp Glu Asp Asp Glu Glu Asp Val Thr Met Asp Gly
```

225 230 235

<210> 31501
<211> 70
<212> PRT
<213> A.fumigatus

<400> 31501
Leu Asn Lys Met Val His Ile Ser Arg Val Gln Lys Arg Pro Lys Gly
1 5 10 15
His Arg Ala Arg Lys Ala Glu Val Thr Asp Tyr Val Tyr Gly Thr His
20 25 30
Phe Ala Ala Gln Asp Leu Pro His His Glu Met Ala Glu Cys Glu Met
35 40 45
Pro Ala Ala Val Ala Tyr Arg Leu Ile Lys Asp Glu Leu Ser Leu Asp
50 55 60
Gly Asn Pro Leu Leu Lys
65 70

<210> 31502
<211> 203
<212> PRT
<213> A.fumigatus

<400> 31502
Thr Gln Pro Ser His Thr Phe Gln Pro Thr Asn Ser Ile Val Thr Pro
1 5 10 15
Val Met Ser Ser Pro Arg Gln Asn Gly Val Gln Thr Ser Cys Glu Pro
20 25 30
Cys Arg Arg Ser Lys Leu Arg Cys Asp Tyr Ser Thr Pro Thr Cys Gln
35 40 45
Arg Cys Leu Arg Arg Gly Lys Ser Asp Val Cys Val Tyr His Pro Ser
50 55 60
Pro Met Thr Arg Ser Trp Tyr Ser Asp Pro Val Ser Ser Pro His Thr
65 70 75 80
Pro Ala Ser Ser Asp Asn Asn Trp Asp Lys Lys Ile Gln Ser Val Pro
85 90 95
Pro Pro Gly Ser Ser Arg Leu Thr Ser Tyr Ser Gly Val Ser Ser Glu
100 105 110
Ile Asp Glu His Leu Asn Glu Ile Phe Ala Pro Leu Ala Thr Leu Glu
115 120 125
His Gly Gly Thr Gly Ser Ser Pro Lys Gln Val Gln Leu Gly Ala Arg
130 135 140
Leu Leu Leu Thr Leu Phe Gly Asn Leu Ser Leu Tyr Glu Thr Ile Thr
145 150 155 160
Glu Asn Arg Ser Asp Asn Ser Pro Glu Gly Cys Val Val Gly Gln Gln
165 170 175
Leu Val Arg Met Ile Phe Arg Ala Leu Lys Asp Asn His Lys Leu Pro
180 185 190
Gly Lys Trp Pro Gly Cys Arg Arg Ser Val Leu
195 200

<210> 31503
<211> 78
<212> PRT
<213> A.fumigatus

<400> 31503
Tyr Thr Arg Ala Arg Leu Glu Leu Met Thr Ala Glu Ser Trp Gln Gly
1 5 10 15
Thr Pro His Arg Ser Lys Thr Thr Met Phe Phe Gly Met Thr Arg Lys
20 25 30
Ile Glu Gln Arg Ser Val Asn Tyr Val Lys Ser Ile Tyr Tyr Arg Val
35 40 45
Ser Tyr Tyr Gly Tyr Ile Asn Pro Ala Lys Asp His Arg Arg His Asn
50 55 60
Arg Gln Gly Gln Gln Arg His Leu Ser His Phe Arg Tyr Leu
65 70 75

<210> 31504
<211> 100
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (46),(61)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31504
Gly Lys Asn Arg Gly Arg Gly Val Lys Gly Tyr Gly Tyr Trp Ala Pro
1 5 10 15
Gln Pro Pro Phe Thr Val Val Ile Thr Gly Glu Pro Ile Arg Ala Pro
20 25 30
Ser Asn Arg Ser Glu Asp Trp Asn Ser Thr Pro Trp Val Xaa Val Pro
35 40 45
Lys Gly His Val Ile Pro Val Pro Cys Gly Gly Ser Xaa Asn Ala Pro
50 55 60
Leu Tyr Ser Ile Ser Ser Val Val Phe Asp Tyr Lys Gln Ala Ala Tyr
65 70 75 80
Pro Glu Trp Gly Ser Pro Pro Ala Gly Gln Ser Gly Ile Ala Asn Val
85 90 95
Pro Ser Arg Lys
100

<210> 31505
<211> 190
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (18)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31505
Tyr Ser Val Asn Asn Gly Leu Thr Leu Lys Thr Ala Thr Val Thr Thr
1 5 10 15
Asp Xaa Tyr Ala Ala Arg Asn Thr Leu Thr His Arg Ile Leu Gly Pro
20 25 30
Asp Ser Thr Ala Thr Ile Glu Leu Thr Ile Ser Asn Met Lys Pro Gly
35 40 45

```
Asp Arg Ser Gly Ile Ala Met Leu Arg Asp Ser Ser Ala Tyr Val Ala
    50                  55                  60
Val Ile Asn Asn Asn Gly Ala Phe Arg Val Ser Met Val Ala Gly Leu
65                  70                  75                  80
Thr Met Asp Ala Asn Trp Asn Thr Leu Ser Thr Gly Ser Glu Val Ala
                85                  90                  95
Gly Val Asn Leu Ser Gly Ser Pro Ser Lys Ile Trp Leu Arg Ala Tyr
            100                 105                 110
Ala Asn Ile Gln Pro Gly Ser Gly Arg Thr Ala Ser Phe Tyr Tyr Ser
        115                 120                 125
Thr Asp Gly Ser Ser Phe His Ser Ile Gly Ala Pro Tyr Thr Leu Asn
    130                 135                 140
Asn Thr Trp Gln Phe Phe Met Gly Tyr Arg Tyr Gly Ile Phe Asn Tyr
145                 150                 155                 160
Ala Thr Val Ser Leu Gly Gly Ser Val Leu Val Ser Ser Phe Glu Met
                165                 170                 175
Glu Arg Gly Ala Pro Ser Ser Gly Ala Thr Thr Thr Ala Ser
            180                 185                 190
```

<210> 31506
<211> 98
<212> PRT
<213> A.fumigatus

<400> 31506

```
Gln Glu Thr Ser Ala Asp Phe Glu Ile Glu Leu Cys Asn Gly Asp Gly
1               5                   10                  15
Glu Asp Cys Asp Leu Ser Arg Gly Pro Glu Val Tyr Gly Phe Val Ser
            20                  25                  30
Ile Arg Leu Gly Phe Leu Arg Leu Ile Val Asp Ile Ile Val Leu Leu
        35                  40                  45
Leu Lys Ser Ser Gln Asp Met Phe Ser Ala Ala Asp Glu Trp Leu Tyr
    50                  55                  60
Ala Lys Ser Gly Ser Ser Phe Leu Glu Arg Met Lys Pro Glu Ser Phe
65                  70                  75                  80
Lys Leu Ser Cys Ile Ser Gln Pro Val Lys Ser Ser Val Tyr Lys Ala
                85                  90                  95
Cys Ser
```

<210> 31507
<211> 65
<212> PRT
<213> A.fumigatus

<400> 31507

```
Ile Asn Glu Lys Val Ser Ser Arg Val Ala His Glu Ile Val Gln Pro
1               5                   10                  15
Lys Ala Gly Arg Tyr Arg Lys Val Thr Gln Val Thr Phe Thr Thr Tyr
            20                  25                  30
Val Met Asp Asp Asn Thr Met Arg Met Met Ile Ser Tyr Asn Lys Tyr
        35                  40                  45
Gln Ile Leu Asp Val Pro Trp Tyr Ile Phe Ser Cys Tyr Glu Tyr Val
    50                  55                  60
Ser
65
```

<210> 31508
<211> 669
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (29)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31508
Leu Ile Ala Phe Pro Pro Gly Gly Ala Ser Arg Thr Lys Leu Ala Ser
1 5 10 15
Lys Ser Arg Gly Lys Leu Thr Asp Ser Arg Pro Val Xaa Gly Asp His
20 25 30
Gly Trp Lys Pro Leu Pro Leu Phe Gln Ala Tyr Pro Gln Ala Ile Lys
35 40 45
His Asp Cys Phe Trp Ala Pro Ala Leu Ser Ala Asp Ser Ile Leu Arg
50 55 60
Ile Gln Ala Thr Ala Lys Ser His Ser Ser Ser Asn Asp Val Asp Pro
65 70 75 80
Gln Gly Asn Gln Pro Pro Asn Glu Glu Ala Ser Ala Glu Arg Lys Lys
85 90 95
Lys Glu Glu Arg Val Lys Lys His Met Arg Thr Val Ser Asp Thr Ile
100 105 110
Gly Lys Thr Glu Trp Ser Gln Lys Ile Tyr Val Leu Val Thr Ser Gly
115 120 125
Tyr Ile Leu Gln Tyr Ser Ala Ser Gly Lys His Asp Arg Leu Pro Glu
130 135 140
Lys Met Leu Gln Val Gly Pro Arg Ser Val Ala Phe Ala Ser Asp Ala
145 150 155 160
Ile Pro Gly Lys Arg Tyr Val Leu Gln Ile Ser Gln Ser Ser Glu Glu
165 170 175
Asp Ser Thr Ala Thr Val Asp Thr His Arg Pro Leu Phe Ser Arg Leu
180 185 190
Gly Phe His Arg Ser Tyr Ser Arg Arg Trp Thr Arg Thr Phe Leu Leu
195 200 205
Val Phe Cys Asn Ala Glu Glu Met Ser Ser Trp Leu Leu Ala Val Arg
210 215 220
Ala Gln Ile Glu Ala Arg Gly Gly Lys Lys Tyr Ile Ser Glu Asn Leu
225 230 235 240
Tyr Asp Glu Asp Leu Glu His Gln Leu Arg Pro Lys Pro Ser Ile Arg
245 250 255
Gln Met Val Gln Arg Asp Pro Asn Arg Phe Ser Lys Ile Tyr Leu Gln
260 265 270
Pro His Gln Ser Ala Gly Ser Asp Glu Lys Asp Gln Ala Pro Ser Asp
275 280 285
Gln Ser Arg Arg Ser Ser Tyr Ile Ser Val Gln Arg Arg Ser Ile Val
290 295 300
Tyr Gln Ser Gly Ala Glu Ser Arg Ser Asn Ser Met Ser Thr Thr Gln
305 310 315 320
Thr Asp Val Thr Pro Pro Val Asn Gly Phe Gly Arg Leu Tyr Pro Ser
325 330 335
Ala Ser Pro Pro Ser Gly Pro Tyr Thr Leu Pro Asn Gly Leu Thr Val
340 345 350

```
Pro Gly Thr Ser Glu Pro Gly Val Pro Pro Ser Ser Thr Thr Ala Ser
        355                 360                 365
Met Thr Lys Arg Leu Ser Thr Tyr Val Ala Gly Ser Leu Ser Thr Glu
    370                 375                 380
Gly His Glu Pro Gly Ser Ser Pro Pro Thr Val Pro Glu Pro Ile Leu
385                 390                 395                 400
Arg Ser Thr Ser Pro Pro Ala Pro Asn Phe Ser Val Pro Ser Phe Ser
                405                 410                 415
Lys Arg Phe Ala Ala Lys Thr Val Gln Ala Lys Leu Val Gln Asp Pro
            420                 425                 430
Arg Leu Asp Cys Asp Gln Ser Asn Gly Ile Arg His Gln Glu Ser Asp
        435                 440                 445
Glu Gln Leu Asp Ala Leu Ser Ala Phe Pro Ser Pro Pro Gln Ser Pro
    450                 455                 460
Ala Arg Asn Met Ser Lys Met Ser Leu Asn Asp Ile His Glu Asp Pro
465                 470                 475                 480
Ser Thr Val Arg Asn Ala Ser Pro Arg Arg Gln Leu Arg Val Ser Asn
                485                 490                 495
Ser Glu Asp Ser Leu Ala Asp Leu Gln Gln Arg Asn Asn Asp His Arg
            500                 505                 510
Ser Leu Pro Asn Gln Arg Leu Pro Ile Thr Tyr Thr Met Pro Ser His
        515                 520                 525
Ser Arg Pro Gln Ser Ile Ala Ile Asp Pro Leu Ser Lys Leu Pro Ser
    530                 535                 540
Glu Pro Gln Pro Thr Arg Pro Thr Thr Asn His Gly Asn Gln Pro His
545                 550                 555                 560
Leu Glu Leu Gln Arg Asp Arg Met Tyr Pro Thr Asp Arg Ser Gly Arg
                565                 570                 575
Pro Pro Ser Met Ala Arg Arg Lys Ser Met Pro Gly Leu Ser Val Gly
            580                 585                 590
Pro Pro Ala Ala Pro Pro Pro Asn Cys Pro Leu Pro Lys Ile Pro Tyr
        595                 600                 605
Pro Ile Asp Pro His Arg Pro Ile Leu Leu Pro Ser Ala Ser Leu Thr
    610                 615                 620
Ser Arg Ser Ser Gln Leu Pro Pro Ser Lys Ser Leu Arg Asp Arg Gln
625                 630                 635                 640
Arg Ser Phe Ala Ser Ile Asn Pro Pro Thr Ser His Ile Asp Leu Pro
                645                 650                 655
Thr Ala Pro Ser Ile Asp Thr Pro Val Ser Ser Gly Leu
            660                 665
```

<210> 31509
<211> 62
<212> PRT
<213> A.fumigatus

<400> 31509

```
Ser Lys Lys Lys Lys Lys Lys Ser Lys Lys Ala Val Ala Gly Ala Val
1                   5                   10                  15
Thr Ala Glu Pro Gln Thr Ala Ser Gly Lys Gly Glu Asp Ser Thr Pro
            20                  25                  30
Ser Ala Thr Thr Thr Ala Thr Pro Ala Ala Asp Ala Ser Gly Val Val
        35                  40                  45
Lys Arg Asp Leu Ala Pro Lys Val Glu Glu Ala Thr Glu Glu
    50                  55                  60
```

<210> 31510
<211> 79
<212> PRT
<213> A.fumigatus

<400> 31510
Ser Val Pro Val His Glu Leu Thr Thr His Arg Lys Ser His Asn Val
1 5 10 15
Gln Cys Ser Ile Thr Ala Arg Leu Arg Leu His Phe Glu Ala Lys Asn
20 25 30
Pro Thr Met Gln Gln Ser Ser Leu Tyr Thr His Ser Val Thr Gln Met
35 40 45
Ser Thr Trp Lys Lys Tyr Gln Ile Ile Thr Ser Glu Thr Ile Ala Thr
50 55 60
Thr Ile Leu Leu Ile Thr Lys Tyr Pro Ser Ser Ile Pro Thr Ser
65 70 75

<210> 31511
<211> 242
<212> PRT
<213> A.fumigatus

<400> 31511
Cys Ser Gly Thr Gly Ser Asp Glu Lys Leu Tyr Thr Tyr Thr Ile Ile
1 5 10 15
Thr Thr Ser Ser Asn Ser Tyr Leu Lys Phe Leu His Asp Arg Met Pro
20 25 30
Val Ile Leu Glu Pro Asn Ser Glu Ala Met Lys Met Trp Leu Asp Pro
35 40 45
Glu Arg Thr Thr Trp Ser Ser Glu Leu Gln Ser Ile Leu Lys Pro Tyr
50 55 60
Glu Gly Glu Leu Glu Cys Tyr Pro Val Thr Lys Glu Val Gly Lys Val
65 70 75 80
Gly Asn Asn Ser Pro Asp Phe Ile Ile Pro Ile Asn Ser Lys Asp Asn
85 90 95
Lys Ser Asn Ile Ala Asn Phe Phe Ala Asn Ala Lys Lys Gln Lys Gly
100 105 110
Gly Ala Asp Ser Phe Ala Arg Asp Glu Asp Ala Lys Glu Ala Leu Pro
115 120 125
Ser Ala Glu Gln Lys Val Val Lys Asp Ser Asp Glu Pro Arg Lys Thr
130 135 140
Gln Asp Ser Gln Trp Ser Glu Ser Asn Ala Pro Leu Pro Glu Pro Gly
145 150 155 160
Val Lys Arg Glu Tyr Pro Leu Asp Gly Asn Asp Ile Ser Asn Glu Thr
165 170 175
Pro Lys Arg Gln Lys Thr Glu Pro Ala Pro Ser Leu Ser Pro Arg Gly
180 185 190
Lys Ala His Glu Pro Lys Ala Lys Ser Asp Arg Lys Thr Thr Thr Ser
195 200 205
Thr Arg Lys Thr Arg Ser Ala Thr His Asn Asp Lys Ser Leu Lys Lys
210 215 220
Pro Asn Arg Lys Thr Thr Asp Gly Ser Gln Arg Ile Thr Asn Phe Phe
225 230 235 240
Gln Lys

<210> 31512
<211> 841
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1),(2)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31512
Xaa Xaa Pro Arg Gly Val Glu Trp Trp Lys Thr Asn Glu Phe Gly Ser
1 5 10 15
Tyr His Pro Lys Arg Lys Asp Asp Ile Pro Ala Leu Val Val Pro Asp
20 25 30
Leu Ala Tyr Ile Glu Phe Thr Arg Ala Pro Thr Gly Asp Met Arg Gly
35 40 45
Val Val Met Ser His Arg Thr Ile Met His Gln Met Ala Cys Leu Ser
50 55 60
Ala Ile Ile Ala Thr Val Pro Gly Ser Gly Lys Ser Val Arg Pro His
65 70 75 80
Gly Glu Thr Leu Ile Ser Tyr Leu Asp Pro Arg Gln Gly Ile Gly Met
85 90 95
Ile Leu Gly Val Leu Leu Thr Val Tyr Gly Gly His Thr Thr Val Trp
100 105 110
Leu Glu Asp Arg Ala Val Glu Thr Pro Gly Leu Tyr Ala His Leu Val
115 120 125
Thr Lys Tyr Arg Ala Thr Leu Met Ala Ala Asp Tyr Pro Gly Leu Lys
130 135 140
Ile Thr Ala Tyr Asn Tyr Gln Gln Asp Pro Met Ala Thr Arg His Phe
145 150 155 160
Lys Lys Asn Ser Glu Pro Asn Phe Glu Asn Val Lys Leu Cys Leu Ile
165 170 175
Asp Thr Leu Thr Val Asp Ala Glu Phe His Glu Ile Leu Ala Asp Arg
180 185 190
Trp Leu Arg Pro Met Arg Asn Pro Arg Ala Arg Glu Ile Val Ala Pro
195 200 205
Met Leu Cys Leu Pro Glu His Gly Gly Met Val Ile Ser Val Arg Asp
210 215 220
Trp Leu Gly Gly Glu Glu Arg Leu Gly Cys Pro Leu Thr His Glu Met
225 230 235 240
Asp Pro Ala Glu Arg Ser Glu Ala Ala Asp Ala Lys Lys Glu Glu Arg
245 250 255
Lys Ser Glu Asn Asn Ser Gly Phe Gly Ser Ser Leu Leu Gly Gly Gly
260 265 270
Val Arg Ala Ser Pro Ala Pro Lys Glu Gln Asn Lys Asn Glu Leu Gly
275 280 285
Glu Val Leu Leu Asp Lys Glu Ala Leu Lys Ser Asn Glu Val Val Val
290 295 300
Leu Ala Met Gly Glu Asp Ala Arg Lys Tyr Ala Ala Thr Met Pro Asn
305 310 315 320
Ala Val Arg Val Gly Ser Phe Gly Tyr Pro Ile Pro Asp Ala Thr Leu
325 330 335
Ala Val Val Asp Pro Glu Thr Asn Leu Leu Cys Thr Pro Asn Val Ile
340 345 350
Gly Glu Ile Trp Val Asp Ser Pro Ser Leu Ser Gly Gly Phe Trp Ala

```
        355                 360                 365
Leu Pro Lys His Thr Glu Ala Ile Phe His Ala Arg Pro Tyr Lys Phe
    370                 375                 380
Glu Glu Gly Asn Pro Thr Pro Val Leu Val Glu Pro Glu Phe Leu Arg
385                 390                 395                 400
Thr Gly Leu Leu Gly Cys Val Ile Glu Gly Lys Ile Phe Val Leu Gly
                405                 410                 415
Leu Tyr Glu Asp Arg Leu Arg Gln Lys Val Glu Trp Val Glu His Gly
            420                 425                 430
Gln Glu Ile Val Glu His Arg Tyr Phe Phe Val Gln His Met Ile Val
        435                 440                 445
Ser Ile Leu Lys Asn Leu Pro Lys Ile His Asp Cys Thr Ala Phe Asp
    450                 455                 460
Val Phe Val Asn Asp Glu His Leu Pro Ile Val Val Leu Glu Ser Tyr
465                 470                 475                 480
Ala Ala Ser Thr Ala Pro Thr Thr Ser Gly Gly Pro Pro Arg Gln Leu
                485                 490                 495
Asp Ser Val Leu Leu Glu Ser Leu Ala Glu Arg Cys Met Glu Val Leu
            500                 505                 510
Tyr Gln Glu His His Leu Arg Val Tyr Cys Val Leu Leu Thr Ala Pro
        515                 520                 525
Asn Thr Leu Pro Arg Val Thr Lys Asn Gly Arg Arg Glu Ile Gly Asn
    530                 535                 540
Met Leu Cys Arg Arg Glu Phe Asp Ala Gly Thr Leu Pro Cys Val His
545                 550                 555                 560
Val Lys Phe Gly Ile Glu Arg Ser Val Met Asn Leu Pro Val Gly Val
                565                 570                 575
Asp Pro Val Gly Gly Ile Trp Ser Pro Leu Ala Ser Ala Thr Arg Gln
            580                 585                 590
Glu Met Leu Ala Met Gln Glu Lys Gln Tyr Ser Gly Val Asp Tyr Arg
        595                 600                 605
Asp Val Val Met Asp Asp Arg Thr Ser Thr Pro Leu Asn Asn Phe Ala
    610                 615                 620
Thr Ile Val Asp Leu Leu Gln Trp Arg Val Ser Arg Gln Ala Glu Glu
625                 630                 635                 640
Leu Ala Tyr Cys Thr Ile Asp Gly Arg Gly Lys Glu Gly Lys Gly Ile
                645                 650                 655
Thr Trp Lys Lys Phe Asp Leu Lys Val Ala Ala Val Ala Met Tyr Leu
            660                 665                 670
Lys Asn Lys Val Lys Val Arg Pro Gly Asp His Leu Ile Leu Met Tyr
        675                 680                 685
Thr His Ser Glu Asp Tyr Val Tyr Ala Val His Ala Cys Phe Cys Leu
    690                 695                 700
Gly Val Val Val Ile Pro Ile Ala Pro Ile Asp Gln Asn Arg Leu Ala
705                 710                 715                 720
Glu Asp Ala Pro Ala Phe Leu His Val Ile Asn Asp Phe Lys Val Lys
                725                 730                 735
Ala Ile Leu Val Asn Ser Asp Val Asp His Val Met Arg Gln Lys Val
            740                 745                 750
Val Ser Gln His Ile Lys Gln Ser Ala Gln Val Leu Lys Ile Gly Val
        755                 760                 765
Pro Ala Ile Tyr Asn Thr Ser Lys Pro Ser Lys Gln Ser His Gly Cys
    770                 775                 780
Arg Asp Leu Gly Phe Thr Val Lys Glu Thr Trp Leu Gln Ser Asp Gln
785                 790                 795                 800
Pro Ala Leu Val Trp Thr Tyr Trp Thr Pro Asp Gln Arg Arg Ile Ser
```

```
                805                 810                 815
Val Gln Ile Gly His Asp Thr Ile Leu Gly Met Cys Ser Leu His His
            820                 825                 830
Gly Ala Lys Arg Thr Thr Val Val Tyr
        835                 840
```

<210> 31513
<211> 79
<212> PRT
<213> A.fumigatus

<400> 31513

```
Tyr Ala Leu Ser Ser Leu Leu Pro Ser Leu Ala Leu Ser Val Cys His
1               5                   10                  15
Phe Arg Phe Leu Glu Pro Phe Pro Arg Val Met Cys Ile Pro Ala Ile
            20                  25                  30
Pro Lys Met Gly Gln Thr Asn Tyr Thr Phe Pro Phe Trp Pro Ser Ala
        35                  40                  45
Phe Asn Thr Tyr Arg Lys Gln Ala Ser Glu Asn Ser Leu Gln Met Pro
    50                  55                  60
Asn Tyr Pro Gly Ser Gln Ala Thr Ile Pro Ser Ser Gln Pro His
65                  70                  75
```

<210> 31514
<211> 123
<212> PRT
<213> A.fumigatus

<400> 31514

```
Gln Met Ala Ser Thr Ser Thr Pro Ala Ser Arg Ser Arg Ser Thr Ser
1               5                   10                  15
Thr Ser Thr Ser Lys Phe Ser Thr Thr Val Thr Ala Ser Thr Pro Ser
            20                  25                  30
Thr Leu Gln Leu Ser Ala Asn Phe Ala Gly Ala His Thr Lys Ser His
        35                  40                  45
Ala Gly Asn Ser Asn Ala Val Gly Tyr Asp His Glu Thr Tyr Leu Gln
    50                  55                  60
Leu Thr Ala Gly Glu Lys Ala Lys Glu Lys Thr Pro Asn Gln Val Tyr
65                  70                  75                  80
Arg Glu Val Ser Asp Pro Tyr Gln Lys Arg Arg Asn Ala Ile Asp Val
                85                  90                  95
Ile Ala Gly Ala Ser Ser Glu Ala His Asp Glu Gly Ile Gly Ser Ser
            100                 105                 110
Tyr Pro Arg Thr Ser Gly Arg Ser Glu Pro Asp
        115                 120
```

<210> 31515
<211> 134
<212> PRT
<213> A.fumigatus

<400> 31515

```
Pro His Gly Ser Leu Val Leu Tyr Ala Ala Thr Pro Pro Pro Arg Pro
1               5                   10                  15
Cys Ser Asp Ile Ser Gly Ser Leu Ser Arg Ser Pro Ser Ile Ser Ala
            20                  25                  30
```

```
Thr Asn Leu Ser Gln Val Phe Ile Thr Pro Trp Lys Lys Ser Met Cys
        35                  40                  45
Phe Ser Ala Arg Ala Pro Ser Val Ser Arg Asn Ser Thr Ala Phe Ile
    50                  55                  60
Arg Ser Lys Ser Ala Thr Ser Arg Thr Thr Ser Ser Ser Asn Ile Ser
65                  70                  75                  80
Asp Val Val Leu Ala Asp Ser Thr Ser Arg Val Ser Ser Ser Met Arg
                85                  90                  95
Ser Ser Ser Phe Arg Thr Arg Ser Arg Arg Asp Cys Ser Trp Ser Thr
            100                 105                 110
Pro Arg Met Ser Ser Ile Leu Glu Arg Met Asn Glu Ala Gly Asp Glu
        115                 120                 125
Val Lys Gly Leu Glu Ala
    130
```

<210> 31516
<211> 135
<212> PRT
<213> A.fumigatus

<400> 31516

```
Ala Lys Thr Pro Pro Asp Gly Ser Pro Ser Met Asp Gln His Asp Asp
1               5                   10                  15
Phe Asp Ser Val Ser Trp Arg Gln Asp Pro Glu Ser Asp Ile Ser Arg
            20                  25                  30
Pro Thr Thr Ser Gly Thr Asp Ala Asp Glu Ser Leu Glu Tyr Asn Arg
        35                  40                  45
Asp Thr Asn Gly Lys Arg Arg Met Ser Ser Val His Glu Asp Pro Pro
    50                  55                  60
Gln Ala Gly Pro Leu Ala Asp Ala Val Asp Leu Ala Gly Ile Gly Asp
65                  70                  75                  80
Gly Val Leu Glu Cys Arg Val Asp Ser Pro Leu Lys Glu Asn Asp Gly
                85                  90                  95
Thr Lys Asp Ala Tyr Ile Ser Tyr Leu Val Thr Thr His Val Ser Tyr
            100                 105                 110
Phe Phe Leu Ile Ser Gly Leu Val Ser Val Cys Trp Leu Pro Gly Trp
        115                 120                 125
Arg Cys Met Gln Met Lys Tyr
    130                 135
```

<210> 31517
<211> 400
<212> PRT
<213> A.fumigatus

<400> 31517

```
Met Gln Thr Asp Phe Lys Ser Phe Gln Lys Pro Asp Phe Ala Val Arg
1               5                   10                  15
Arg Arg Phe Thr Asp Phe Tyr Phe Leu Tyr Lys Thr Leu Tyr Arg Glu
            20                  25                  30
Tyr Pro Ala Cys Ala Val Pro Pro Leu Pro Glu Lys His Lys Met Glu
        35                  40                  45
Tyr Val Thr Gly Asp Arg Phe Gly Pro Glu Phe Thr Ser Arg Arg Ala
    50                  55                  60
Trp Ser Leu His Arg Phe Leu Lys Arg Leu Thr Leu His Pro Val Leu
65                  70                  75                  80
```

```
Arg Arg Ala Pro Leu Leu Ala Ile Phe Leu Glu Ser Pro Asp Trp Asn
                85                  90                  95
Ala His Met Arg Leu His Ser Thr Arg Thr Ser Thr Gly Asn Ser Asp
            100                 105                 110
Gly Ser Gly Thr Glu Ile Phe Asp Asn Phe Thr Asp Thr Phe Val Asn
        115                 120                 125
Ala Phe Thr Lys Val His Lys Pro Asp Arg Arg Phe Ile Glu Val Lys
    130                 135                 140
Glu Lys Ala Asp Lys Leu Asp Glu Asp Leu Asn His Val Glu Lys Ile
145                 150                 155                 160
Val Ala Arg Val Ala Arg Arg Glu Ser Asp Leu Asp Ala Asp Tyr Asn
                165                 170                 175
Asp Leu Ala Thr Gln Phe Arg Lys Leu Val Pro Leu Glu Pro Asp Val
            180                 185                 190
Glu Val Pro Leu Gln Ile Phe Ala Ala Ser Val Glu Glu Thr Ala Arg
        195                 200                 205
Gly Phe Lys Met Leu Lys Asp His Thr Asp Gln Asn Tyr Leu Gly Ser
    210                 215                 220
Leu Arg Asp Met Glu Ala Tyr Ile Val Ser Val Lys Ala Leu Leu Lys
225                 230                 235                 240
Thr Arg Glu Gln Lys Gln Leu Asp Phe Glu Ala Leu Val Asp Tyr Arg
                245                 250                 255
Asn Lys Ala Val Ala Glu Arg Asp Ser Leu Ala Ala Asn Pro Ser Ser
            260                 265                 270
Tyr Tyr Ala Ser Asn Pro Leu Thr Ser Ser Pro Ala Ser Phe Ile Arg
        275                 280                 285
Ser Lys Met Glu Asp Met Arg Gly Val Asp His Glu Gln Ser Arg Arg
    290                 295                 300
Glu Arg Val Arg Lys Leu Glu Leu Arg Ile Asp Glu Leu Thr Arg Glu
305                 310                 315                 320
Val Glu Ser Ala Lys Thr Thr Ser Glu Met Phe Asp Glu Glu Val Val
                325                 330                 335
Arg Glu Val Ala Asp Phe Glu Arg Ile Lys Ala Val Glu Phe Arg Asp
            340                 345                 350
Thr Leu Gly Ala Leu Ala Glu Lys His Ile Asp Phe Phe Gln Gly Val
        355                 360                 365
Ile Asn Thr Trp Glu Arg Phe Val Ala Glu Met Glu Gly Asp Leu Asp
    370                 375                 380
Asn Asp Pro Glu Met Ser Glu His Gly Arg Gly Gly Gly Val Ala Ala
385                 390                 395                 400
```

<210> 31518
<211> 365
<212> PRT
<213> A.fumigatus

<400> 31518

```
Leu Arg Phe Asp Ala Tyr Ala His Pro Val Val Lys Met Arg Ile Cys
1               5                  10                  15
Val Glu Asn Gly Met Phe Thr Tyr Ser Phe Leu Lys Glu Ala Ser Gln
            20                  25                  30
Lys Phe Arg Gly Trp Ile Asp Asp Leu Leu Ser Ser Ala Trp Ala Ser
        35                  40                  45
Cys Gln Asp Ser Asp Leu Leu Ile Glu Ser Pro Ser Ala Met Ala Gly
    50                  55                  60
Ile His Ile Ala Glu Ala Leu Arg Ile Pro Tyr Phe Arg Ala Phe Thr
```

```
65                  70                  75                  80
Met Pro Trp Ser Arg Thr Arg Ala Tyr Pro His Ala Phe Ala Val Pro
                85                  90                  95
Glu His Arg Met Gly Gly Ala Tyr Asn Tyr Ile Thr Tyr Val Met Phe
            100                 105                 110
Asp Asn Val Phe Trp Lys Ala Ile Ala Gly Gln Val Asn Arg Trp Arg
        115                 120                 125
Lys Asn Glu Leu Gly Leu Lys Ala Thr Thr Leu Asp Lys Met Gln Pro
    130                 135                 140
Asn Lys Val Pro Phe Leu Tyr Asn Tyr Ser Pro Ser Val Val Pro Pro
145                 150                 155                 160
Pro Leu Asp Tyr Pro Asp Trp Ile Arg Ile Thr Gly Tyr Trp Phe Leu
                165                 170                 175
Asn Glu Gly Ser Asp Trp Thr Pro Pro Thr Ala Leu Ser Glu Phe Ile
            180                 185                 190
His Arg Ala Arg Glu Asp Gly Lys Lys Ile Val Tyr Ile Gly Phe Gly
        195                 200                 205
Ser Ile Val Val Ser Asp Pro Ser Ala Leu Thr Lys Thr Val Ile Glu
    210                 215                 220
Ser Val Leu Lys Ala Asp Val Arg Cys Ile Leu Ser Lys Gly Trp Ser
225                 230                 235                 240
Asp Arg Leu Gly Asp Pro Ala Ser Ala Lys Pro Glu Val Pro Leu Pro
                245                 250                 255
Ser Glu Ile His Gln Ile Gln Ala Ala Pro His Asp Trp Leu Phe Ser
            260                 265                 270
His Ile Asp Ala Ala Val His His Gly Gly Ala Gly Thr Thr Gly Ala
        275                 280                 285
Ser Leu Arg Ala Gly Val Pro Thr Ile Ile Lys Pro Phe Phe Gly Asp
    290                 295                 300
Gln Phe Phe Phe Gly Ser Arg Val Glu Asp Leu Gly Val Gly Ile Cys
305                 310                 315                 320
Met Lys Lys Leu Asn Val Ser Val Phe Ser Arg Ala Leu Trp Glu Ala
                325                 330                 335
Thr His Ser Glu Arg Met Ile Ile Arg Ala Gln Asp Leu Gly Ala Arg
            340                 345                 350
Ile Arg Ser Val Ser Asp Ile Leu Thr Ile Lys Phe Leu
        355                 360                 365
```

<210> 31519
<211> 280
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (33)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 31519
Lys Ser Lys Arg Ala Pro Val Leu Val Thr Phe Gly Gln Cys Glu Val
1               5                   10                  15
Glu Asp Pro Lys Ala Asp Leu Gln His Gly Val Asp Asp Ser Tyr Pro
            20                  25                  30
Xaa Asp Val Lys Lys Gly Ser Asp Thr Ile Gln Ile Thr Ala Lys Thr
        35                  40                  45
Val Trp Gly Ala Leu His Ala Phe Thr Thr Pro Gln Gln Ile Ile Ile
```

```
    50                  55                  60
Ser Asp Gly Lys Gly Gly Leu Ile Ile Glu Gln Pro Val Ser Ile Gln
65                  70                  75                  80
Asp Ala Pro Leu Tyr Pro Tyr Arg Gly Ile Met Ile Asp Thr Gly Arg
                85                  90                  95
Asn Phe Ile Ser Val Lys Lys Ile Leu Glu Gln Leu Asp Ala Met Ser
            100                 105                 110
Leu Ser Lys Leu Asn Val Leu His Trp His Leu Asp Asp Thr Gln Ser
        115                 120                 125
Trp Pro Val Gln Ile Asn Ala His Pro Glu Met Val Lys Asp Ala Tyr
    130                 135                 140
Ser Val Arg Glu Thr Tyr Ser His Ala Asp Ile Arg Gln Ile Ile Ala
145                 150                 155                 160
Tyr Ala Arg Ala Arg Gly Ile Arg Val Ile Pro Glu Val Asp Met Pro
                165                 170                 175
Ser His Ser Ser Ser Gly Trp Lys Gln Ala Asp Pro Lys Met Val Thr
            180                 185                 190
Cys Ala Asp Ser Trp Trp Ser Asn Asp Val Trp Gln Tyr His Thr Ala
        195                 200                 205
Val Gln Pro Asn Pro Gly Gln Leu Asp Ile Ile Tyr Asp Lys Thr Tyr
    210                 215                 220
Asp Ile Val Arg Asp Val Tyr Asn Glu Leu Ser Gly Val Phe Thr Asp
225                 230                 235                 240
Asn Trp Phe His Val Gly Ala Asp Glu Ile Gln Pro Asn Cys Phe Asn
                245                 250                 255
Phe Ser Thr Tyr Val Gln Ser Trp Phe Ala Glu Asp Pro Ser Ser Ser
            260                 265                 270
Arg Arg Gly Trp Asn Asp Leu Gln
        275                 280
```

<210> 31520
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31520

```
Glu Thr Gln Glu Ser Val Leu Thr Leu Ser Phe Trp Ser Ser Lys Gln
1               5                   10                  15
Gly Trp Lys Arg Ala Ala Val Asn Thr Leu Arg Cys Leu Ala Gly Cys
            20                  25                  30
Thr Leu Gly Asp Phe Leu Ala Leu Trp Val Leu Gln Ser Phe Tyr Gly
        35                  40                  45
His Trp Asp Met Ser Ala Ile Met Gly Val Ser Ser Met
    50                  55                  60
```

<210> 31521
<211> 325
<212> PRT
<213> A.fumigatus

<400> 31521

```
Tyr Ser Cys Gln Leu Leu Phe Leu Tyr Thr Asn Gln Leu Pro Leu Thr
1               5                   10                  15
Ser Val Gln Gln His Glu Arg Asp Ala Val Ser Tyr Asp Pro Phe Ser
            20                  25                  30
Val Gly Leu Gln Leu Gln Ala Gln Gly Ile Glu Ala Lys His Pro Ile
```

```
        35                  40                  45
Val Met Ile Pro Gly Val Ile Ser Thr Gly Leu Glu Ser Trp Gly Thr
    50                  55                  60
Gly Pro Ala Ser Arg Gln Tyr Phe Arg Arg Arg Leu Trp Gly Ser Trp
65                  70                  75                  80
Ser Met Met Arg Ala Leu Val Met Asp Lys Ala Glu Trp Lys Asn His
                85                  90                  95
Ile Met Leu Asp Arg Glu Thr Gly Leu Asp Pro Pro Gly Ile Lys Leu
            100                 105                 110
Arg Ala Ala Gln Gly Phe Asp Ala Thr Asp Phe Phe Ile Thr Gly Tyr
        115                 120                 125
Trp Ile Trp Asn Lys Ile Leu Glu Asn Leu Ala Thr Ile Gly Tyr Asp
    130                 135                 140
Pro Thr Asn Ala Phe Thr Ala Ala Tyr Asp Trp Arg Leu Ser Tyr Leu
145                 150                 155                 160
Asn Leu Glu Val Arg Asp Gln Tyr Phe Ser Arg Leu Lys Ser Tyr Ile
                165                 170                 175
Glu Thr Ala Val Leu Val Lys Gly Glu Lys Val Thr Leu Ala Ser His
            180                 185                 190
Ser Met Gly Ser Gln Val Val Leu Tyr Phe Phe Lys Trp Val Glu His
        195                 200                 205
Pro Asp His Gly Lys Gly Gly Arg Asp Trp Val Asn Lys His Ile Ala
    210                 215                 220
Asn Trp Ile Asn Ile Ser Gly Cys Met Leu Gly Ala Val Lys Gly Leu
225                 230                 235                 240
Thr Ala Val Leu Ser Gly Glu Met Arg Asp Thr Ala Gln Leu Asn Ala
                245                 250                 255
Phe Ala Val Tyr Gly Leu Glu Lys Phe Leu Ser Lys Glu Glu Arg Ala
            260                 265                 270
Glu Ile Phe Arg Ala Met Pro Gly Ile Ser Ser Met Leu Pro Asn Val
        275                 280                 285
Gly Arg Ser Ser Leu Val Gln Leu Tyr Leu Gly Thr Arg Arg Ser Thr
    290                 295                 300
Leu Ala Ser His Asp Leu Trp Arg Pro Ser Ser Leu Ser Arg Asn Gln
305                 310                 315                 320
Phe Leu Pro Val Pro
                325
```

<210> 31522
<211> 111
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (30),(36),(46)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 31522
Lys Leu Thr Thr Thr Glu Lys Leu Asp Tyr Leu Leu Asp Gln Ser Glu
1               5                   10                  15
Asp Trp Tyr Pro His Gln Val Leu Ser Asn Tyr Ser His Xaa Gly Ala
            20                  25                  30
His Thr Thr Xaa Glu Val Gln Ala Asn Glu Thr Asn Pro Xaa Thr Trp
        35                  40                  45
Phe Asn Pro Leu Glu Thr Pro Val Ala Leu Ala Pro Gly Ile Glu Glu
```

```
    50                  55                  60
Leu Leu Ala Leu Pro Gly Gly Gln Thr Arg Arg Thr Pro Leu Leu Leu
65                  70                  75                  80
Leu Arg Lys Thr Glu Pro Leu Val Lys Leu Lys Arg Trp Ile Trp Asn
                85                  90                  95
Pro Arg Asn Pro Pro Lys Gly Val Asn Pro Gly Val Ser Leu Gly
            100                 105                 110
```

<210> 31523
<211> 162
<212> PRT
<213> A.fumigatus

<400> 31523

```
Leu Leu Thr Phe Asn Ser Phe Tyr Leu Leu Ser Cys Arg Pro Ile Leu
1               5                   10                  15
Trp Ala Leu Gly Val Ile Val Phe Glu Leu His Ser Gln Ser Glu Phe
            20                  25                  30
Gly Val Thr Ser Ile Ala Ala Phe Cys Phe Pro Leu Arg Pro Phe Leu
        35                  40                  45
Ala Val Ala His Met Leu Arg Arg Arg Leu Ala Lys Asp Asp Asp Val
    50                  55                  60
Gln Gln Thr Lys Asp Lys Ser Arg Asp Asp Lys Gly Lys Ser Ser Pro
65                  70                  75                  80
Asp Thr Lys Thr Val Val Ile Gln Glu Lys Pro Gln Ser Gly Ser Phe
                85                  90                  95
Phe Ser Arg Pro Lys Ser Lys Arg Arg Asn Gly Leu Ile Phe Ala Leu
            100                 105                 110
Gly Gly Ile Phe Gly Ile Phe Val Ala Leu Phe Phe Ala Asn Gln Gln
        115                 120                 125
Asp Val Ile Ser Leu Glu Ser Leu Met Asp Leu Asn Leu Asp Thr Leu
    130                 135                 140
Ile Asp Val Ile Pro Gln Gly Ile Ile Arg Asp Ala Arg Glu Phe Thr
145                 150                 155                 160
Val Cys
```

<210> 31524
<211> 176
<212> PRT
<213> A.fumigatus

<400> 31524

```
Lys Lys Val Pro Lys Asn Ser Asp Gly Arg Arg Asn His Met Gly Asn
1               5                   10                  15
Arg Asn Pro Asn Val Met Arg Asp Pro Gln Asn Ser Cys Leu Leu Gly
            20                  25                  30
Pro Pro Thr Thr Ile Ile Arg His Ser Ala Ile Thr Ser Cys Ser His
        35                  40                  45
Ser Ser Phe Tyr Arg Leu Leu Gln Gln Ser Thr Glu Ile Lys Leu His
    50                  55                  60
Arg Pro Ser Pro Tyr Pro Thr Thr Thr Pro Ala Pro Ile Pro Leu Asp
65                  70                  75                  80
Asp Ser Val Met Ser Gln Asp Asp Ser Ser Pro Ala Glu Pro Thr Ala
                85                  90                  95
Ala Gly Ala Ala Ala Pro Ser Asp Leu Arg Tyr Val Arg Tyr Asp Gly
```

```
            100                 105                 110
Ser Arg Glu Ser Glu Phe Val Ser Ala Met Arg Gln Leu Ile Ser Lys
        115                 120                 125
Asp Leu Ser Glu Pro Tyr Ser Ile Tyr Val Tyr Arg Tyr Phe Leu Tyr
    130                 135                 140
Gln Trp Gly Asp Leu Cys Phe Met Ala Met Asp Asp Thr Lys Glu Lys
145                 150                 155                 160
Asp Phe Met Val Gly Val Val Ala Phe Pro Thr Gly Glu Asn Pro Arg
                165                 170                 175
```

<210> 31525
<211> 73
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (55)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31525

```
Pro Val Leu Met Asn Asn Glu Ala Leu Ala Glu Asp Pro Pro Thr Pro
1               5                   10                  15
Leu Trp Glu Leu Val Leu Glu Gln Phe Lys Asp Gln Leu Val Leu Ile
            20                  25                  30
Leu Leu Gly Ser Ala Ala Val Ser Phe Val Leu Ala Leu Phe Glu Glu
        35                  40                  45
Gly Asp Asp Trp Thr Ala Xaa Val Asp Pro Val Val Val Arg Ser Ala
    50                  55                  60
Lys Pro Arg Cys Thr Lys Val Ile Ser
65                  70
```

<210> 31526
<211> 167
<212> PRT
<213> A.fumigatus

<400> 31526

```
Ile Leu Thr Ile Leu Ile Leu Asn Ala Val Val Gly Val Thr Gln Glu
1               5                   10                  15
Ser Ser Ala Glu Lys Ala Ile Ala Ala Leu Gln Glu Tyr Ser Ala Asn
            20                  25                  30
Glu Ala Thr Val Val Arg Asp Gly Lys Thr Gln Arg Ile Lys Ala Glu
        35                  40                  45
Asp Leu Val Pro Gly Asp Ile Ile His Ile Gly Val Gly Asp Arg Val
    50                  55                  60
Pro Ala Asp Cys Arg Leu Leu Ala Ile Gln Ser Asn Ser Phe Arg Val
65                  70                  75                  80
Asp Gln Ala Val Leu Thr Gly Glu Ser Glu Ser Val Ser Lys Asp Thr
                85                  90                  95
Arg Ser Ile Lys Asp Glu Gln Ala Val Lys Gln Asp Gln Thr Asn Ile
            100                 105                 110
Leu Phe Ser Gly Thr Ser Val Val Asn Gly His Ala Thr Ala Ile Val
        115                 120                 125
Val Leu Thr Gly Ala Ser Thr Ala Ile Gly Gly Ile His Glu Ser Ile
    130                 135                 140
```

```
Thr Ser Gln Ile Ser Glu Pro Thr Pro Leu Lys Gln Lys Leu Asn Asp
145                 150                 155                 160
Phe Gly Lys Cys Leu Leu Lys
                165
```

<210> 31527
<211> 94
<212> PRT
<213> A.fumigatus

<400> 31527

```
Lys Tyr Cys Tyr Pro Arg Thr Thr Tyr Leu Thr Trp Ser Thr Thr Thr
1               5                  10                  15
Gly Asn Leu Leu Phe Ile Arg Pro Leu Gly Ile His Asp Ser Val Ala
            20                  25                  30
Thr Phe Ser Leu Tyr Ile Ser Ser His Ser Phe Phe Leu Ser Leu Leu
        35                  40                  45
Phe Val Ser Leu Ser Leu Gly Leu Phe Asp Cys Ser Arg Cys Asp Trp
    50                  55                  60
Gln Trp Ser Asp Leu Phe Ser Ile Leu Gln Gln Lys Cys Trp Ser Thr
65                  70                  75                  80
Leu Glu Ser Gln Ser Val Leu Val Cys Pro Arg Ile Arg Ser
                85                  90
```

<210> 31528
<211> 200
<212> PRT
<213> A.fumigatus

<400> 31528

```
Ser Ile Val Arg Pro Thr Gly Leu Arg Met His Leu Pro Leu Pro Arg
1               5                  10                  15
Gly Ser Arg Ile Cys Cys Asn Leu Ser Arg Leu Gln Val Pro Pro Ser
            20                  25                  30
Leu Ser Ser Ser Thr His Ser Ser Ser Ser Ser Ser Phe Ser Ser Asn
        35                  40                  45
Arg Ala Gly Arg Cys Ala Cys Gly Cys Arg Asn Ser Ala Ser Cys Ser
    50                  55                  60
Cys Ser Cys Cys Val His Pro Ser Ser Leu Ser Pro Leu Thr Lys Ala
65                  70                  75                  80
Thr Arg Ser Leu Thr Thr Thr Thr Ser Arg Ala Leu Phe Arg Thr Ser
                85                  90                  95
Pro Ser Arg Met Ala Gln Glu Tyr Lys Leu Lys Asp Ile Ser Ser Leu
            100                 105                 110
Ala Asp Ile Lys Asn Met Asp Lys Val Glu Ser Glu Val Glu Gly Val
        115                 120                 125
Glu Gly Gly Lys Val Leu Val Leu Arg Phe Asn Gly Gln Val His Ala
    130                 135                 140
Met Ser Pro Lys Cys Thr His Tyr Gly Ala Pro Leu Lys Leu Gly Val
145                 150                 155                 160
Val Ala Pro Asp Gly Arg Ile Thr Cys Pro Trp His Gly Gly Lys Ser
                165                 170                 175
Val Leu Val Arg Glu Trp Ala Val Tyr Met Leu Ile Ile Val Ser Gly
            180                 185                 190
Ser Leu Phe Gln Tyr Trp Glu Arg
        195                 200
```

<210> 31529
<211> 69
<212> PRT
<213> A.fumigatus

<400> 31529
Ser Ser Phe Leu Val Ala Cys Phe Asn Ile Gly Ser Gly Asp Val Glu
1 5 10 15
Asp Ala Pro Ala Pro Asn Ala Leu Asn Lys Phe Glu Leu Val Glu Lys
20 25 30
Asn Gly Ala Val Tyr Ile Lys Gly Glu Glu Ala Ala Ile Lys Ser Gly
35 40 45
Gln Arg Asp Pro Val Phe Lys Cys Ser Pro Ser Thr Gly Glu Lys Val
50 55 60
Val Val Val Gly Gly
65

<210> 31530
<211> 99
<212> PRT
<213> A.fumigatus

<400> 31530
Ala Pro Ser Ser Ser Phe Ser Ile Leu Phe Tyr Ser Phe Ile Leu Ile
1 5 10 15
Leu Ile Leu Phe Phe Gln Ser Arg Arg Pro Leu Cys Leu Trp Leu Ser
20 25 30
Gln Phe Arg Leu Val Leu Leu Leu Leu Leu Cys Ser Ser Ile Leu Ser
35 40 45
Val Pro Phe Asn Gln Ser Tyr Gln Ile Ile Asp Tyr His Tyr Phe Ala
50 55 60
Arg Thr Ile Pro His Ile Thr Ile Gln Asn Gly Ala Gly Ile Gln Thr
65 70 75 80
Gln Gly His Leu Val Pro Ser Gly His Gln Glu His Gly Gln Gly Arg
85 90 95
Val Arg Gly

<210> 31531
<211> 403
<212> PRT
<213> A.fumigatus

<400> 31531
His Tyr Lys Pro Gly Lys Pro Leu Val Ala Glu Ser Gln Ala Lys Ala
1 5 10 15
Ala Ile Gly Pro Leu Trp Met Thr Gln Ile Lys Met Ala Arg Thr Arg
20 25 30
Met Met Thr Ile Gln Phe Ser Leu Arg Ile Pro Gln Ala Gly Arg Arg
35 40 45
Lys Arg Ala Leu Asp Pro Thr Tyr Ile Pro Gly Lys Asn Asp Val Gly
50 55 60
Glu Glu Glu Asp Asp Asp Asp Glu Tyr Ile Pro Thr Gly Leu Gly Arg
65 70 75 80
Lys Lys Arg Arg Ile Leu Asp Pro Ala Phe Val Pro Asp Lys Gly Asp

```
                85                  90                  95
Glu Asp Gln Asp Ile Phe Leu Asp Ser Ser Lys Lys Gly Lys Gly Arg
            100                 105                 110
Thr Thr Glu Asn Arg Thr Thr Thr Arg Lys Ala Asn Ser Glu Ile Gly
        115                 120                 125
Ala Gly Asn Leu Pro Thr Pro Ser Lys Glu Thr Pro Arg Pro Ala Lys
    130                 135                 140
Thr Met Lys Thr Glu Pro Thr Ser Pro Pro Arg Val Pro Val Leu Pro
145                 150                 155                 160
Ala Leu Thr Asp Pro Gln His Asp Thr Ser Asp Gly Lys Ala Ala Ile
                165                 170                 175
Lys Asn Ser Trp Glu Leu Val Asn Ala Arg Thr Gln Pro Asn His Pro
            180                 185                 190
Leu Lys Val Lys Ala Met Lys Ile Leu Asn Lys Ile Ala Glu Asp Arg
        195                 200                 205
Asn Arg Ala Phe Phe Ala Leu Val Lys Ala His Gln Arg Ser Arg Lys
    210                 215                 220
Ser Tyr Ala Ala His Leu Ala Gly Asn Thr Asn Asp Glu Ala His Thr
225                 230                 235                 240
Gln Gly Met Ala Asp Ser Ser Arg Arg Arg Asn Lys Thr Ser Asp Ala
                245                 250                 255
Val Ala Arg His Ser Asp Ser Thr Ala Gln Val Asn Asp Thr Ser Leu
            260                 265                 270
Thr Gln Glu Asp Glu Ala Asp Thr Ser Val Pro Asp Leu Ser Gln Glu
        275                 280                 285
Arg Ala Lys Arg Trp Ala Asn Ala Val Asn Val Pro Lys Gly Leu Trp
    290                 295                 300
Ser Glu Val Glu Lys Gln Leu Phe Tyr Arg Ile Ala Met Arg Gly Phe
305                 310                 315                 320
Glu Pro Leu Leu Pro Lys Gln Trp His Tyr Asp Phe Ser Thr Leu Pro
                325                 330                 335
Asn Pro Leu Phe Ala Val Ser Gly Glu Asn Pro Ala Ser Leu Ile Asn
            340                 345                 350
Ala Ile Arg Gly Ser Glu Phe Tyr Gly Lys Leu Asp Leu Ser His Ala
        355                 360                 365
Ile Cys Leu Asp Ser Pro Leu Asn Ile Cys Ser Asn Gln Val Ala Phe
    370                 375                 380
Arg Phe Ile Leu Ser Arg Arg Leu Cys Gln Arg Leu Gln Ser Gly Ala
385                 390                 395                 400
Ser Ser Thr
```

<210> 31532
<211> 121
<212> PRT
<213> A.fumigatus

<400> 31532

```
Ala Leu Met Asp His Leu Ser Leu Arg Arg Asp Ser Ser Gln Met Ala
1               5                   10                  15
Glu Asn Asn Pro Asp Val Met Asn Glu Leu Ala Thr Lys Leu Gly Leu
            20                  25                  30
Ser Ser Glu Leu Gln Phe Tyr Asp Val Tyr Ser Leu Asp Glu Pro Glu
        35                  40                  45
Gln Leu Ala His Ile Pro Arg Pro Ala Met Ala Leu Leu Ala Ile Ile
    50                  55                  60
```

```
Pro Arg Thr Pro Ala Trp Glu Arg Asp Arg Glu Ala Glu Asp Ala Asn
65                  70                  75                  80
Lys Glu Pro Tyr Thr Gly Ser Gly Pro Asn Glu Pro Val Thr Trp Phe
                85                  90                  95
Lys Gln Thr Ile Gly His Ala Cys Gly Ser Ile Gly Leu Leu His Asn
            100                 105                 110
Leu Val Asn Gly Pro Ala Ala Asp Tyr
        115                 120
```

<210> 31533
<211> 314
<212> PRT
<213> A.fumigatus

<400> 31533

```
Gln Ala Val Asp Thr Leu Leu Asp Leu His Ala Lys Leu Ser Thr Val
1               5                  10                  15
Val Arg Tyr Tyr Asp Arg Met Leu Glu Glu Arg Leu Ser Ser Ala Tyr
            20                  25                  30
Ser Gln His Ser Leu Gly Tyr Ala Thr Ala Pro Gly Gly Ser Pro Tyr
        35                  40                  45
Pro Asn Ile Tyr Pro Thr Met Pro Ser His Ile Pro Glu Gly Lys Thr
    50                  55                  60
Gly Ala Glu Asn Phe Tyr Tyr Gly Asn Pro Val Ala Asp Arg Ala Pro
65                  70                  75                  80
Pro Val Arg Asn Thr Tyr Gly Tyr Pro His Ser Ser Arg Asp Ile Arg
                85                  90                  95
Glu Pro Thr Ala Ala Pro Ser Gly Pro Ile Ser Ser Gly Val Tyr Tyr
            100                 105                 110
Gln Pro Gly Gln Ala Val Pro Leu Asn Pro Pro Trp Asn Gly Lys Ala
        115                 120                 125
Pro Ser Val Ala Ser Pro Gln Pro Ser Asp Pro Ser Thr Pro Phe Pro
    130                 135                 140
Asn Ile Ser Ser Asp Asn Leu Glu Pro Ser Ala Trp Arg Gln Tyr Tyr
145                 150                 155                 160
Ala Ser Ala Pro His Gln Lys Gln Asp Ser Asn Ala Tyr Ser Gly Pro
                165                 170                 175
Arg Pro Gly Glu Thr Asp Val Ser His Gln Ser Ser Pro Asn Met Arg
            180                 185                 190
Arg Asp Ser Tyr Tyr Gln Ser Ala Gly Ala Pro Val Thr Ala Arg Ala
        195                 200                 205
Ser Ala Pro Glu Gln Ser Pro Pro Thr Asp Gln Gly Gln Ser Pro Ala
    210                 215                 220
Tyr Met Gln Tyr Gly Asp Ser His Ser Ala Gln Ser Thr Gly Gln Pro
225                 230                 235                 240
Thr His Gln His Gln Pro Thr Ala Pro Pro Pro Gln Ser Tyr Tyr Phe
                245                 250                 255
Gln His Gln Pro Pro Gln Ser Ala Pro Leu Pro Thr His Ser Gln Thr
            260                 265                 270
Pro Gly Ala Pro Tyr Gly Thr Tyr Pro Gly Gly Asp Val Ser Pro Ile
        275                 280                 285
Gly Ala Pro Ala Pro Ala Val His Tyr Gln Pro Ala Ala Gln Thr Lys
    290                 295                 300
Pro Ala Val Glu Glu Ser Leu Ile Glu Leu
305                 310
```

<210> 31534
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31534
Tyr Tyr His Pro Pro Gly Asp Ala Phe Cys Leu Ala Pro Leu Phe Leu
1 5 10 15
Ser Thr Ser Val Phe Tyr Ser His Ser Ser Leu Phe Asp Thr His Phe
20 25 30
Ser Thr Asn Gly Val Arg Cys Ile Val Met Ala Phe Ser Leu Arg Ala
35 40 45
Phe Leu Ile Lys Phe Gly Ile Ser Tyr Cys Val Asn Leu
50 55 60

<210> 31535
<211> 75
<212> PRT
<213> A.fumigatus

<400> 31535
Lys Leu Gln Pro Ser Phe Ala Leu Asp Thr Gly Glu Leu Lys Tyr Ser
1 5 10 15
Gly Glu Val Arg Thr Ala Thr Val Pro Asp Ala Phe Phe Gly Pro Leu
20 25 30
Lys Leu Ile Ala Tyr Arg Tyr Leu Trp Pro Thr Tyr Ser Glu Asp Ala
35 40 45
Ser Asn His His Val Leu Leu Ile Ala Leu Ile Val Ser Ile Lys Gln
50 55 60
Arg Asp His Leu Pro Ile Trp Gly Ala Phe Leu
65 70 75

<210> 31536
<211> 602
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (533)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31536
Ile Ile Glu Thr Phe Ser Asp Arg Pro Gly Asp Phe Ser Asn Leu Phe
1 5 10 15
His Arg Ile Leu Ser Met Ser Val Asp Asn Ser Leu Ser Thr Phe Ser
20 25 30
Arg Gln Ser Ile Leu Ser Phe Ile Ile Ser Ala Phe Gln Ser Leu Glu
35 40 45
Asn Val Leu Ile Arg Lys Glu Cys Ala Pro Leu Val Ser Ile Ser Ile
50 55 60
Trp His Asn Leu Ser Ser Glu Glu Leu Arg Asp Arg Ile Phe Ala Lys
65 70 75 80
Val Pro Ser Leu Lys Lys Ala Trp Arg Ala Ala Gly Lys Arg Tyr Glu
85 90 95
Ala Gly Asp Glu Thr Ala Lys Ala Arg Met Arg Phe Glu Arg Ser Trp

```
                100                 105                 110
Leu Phe Thr Met Leu Leu Asp Phe Leu Arg Arg Leu Asn Gly Ser Glu
        115                 120                 125
Gln Glu Leu Ser Asp Asn Leu Arg Tyr Cys Glu Arg Phe Leu Glu Tyr
    130                 135                 140
Leu Val Asp Leu Glu Ser Gln Leu Pro Thr Arg Arg Tyr Val Asn Thr
145                 150                 155                 160
Leu Leu Lys Asp Leu Asn Leu Leu Pro Val Ile Arg Leu Ser Gln Met
                165                 170                 175
Tyr Arg Ser Pro Gly Asn Ala Leu Phe Arg Asp Leu Val Glu Leu Leu
            180                 185                 190
Asn His Phe Ser Gly Phe Ala Ile Asp Asp Tyr Thr Gly Glu Pro Leu
        195                 200                 205
Asp Pro Gln Ala Ile Tyr Glu Ser His Ser Arg Glu Leu Ala His Leu
    210                 215                 220
Gln Arg Thr Ala Met Lys His Phe Lys Asp Lys Leu Met Ile Leu Ala
225                 230                 235                 240
Leu Ser Asn Tyr Gly Ser Ile Glu Gln Arg Ser Glu Leu Glu Gly Gln
                245                 250                 255
Leu Ser Thr Leu Asn Asp Ser Glu Leu Gln Ser Leu Cys Met His Leu
            260                 265                 270
Gly Phe Arg Thr Asp Tyr Pro Lys Gln Ser Gly Val Ile Pro Thr Arg
        275                 280                 285
His Leu Tyr Leu Glu Ile Leu Leu Ser Phe Tyr Glu Arg Lys Val Pro
    290                 295                 300
Phe Gln Glu Thr Ala Ser Arg Leu Ser Ile Val Pro Thr Glu Lys Asp
305                 310                 315                 320
Leu Tyr Asp Pro Ser Phe Leu Arg Asn Glu Thr Tyr Asp Gly Ser Arg
                325                 330                 335
Pro Leu Ala Ile Pro Lys Leu Asn Leu Gln Tyr Leu Ser Leu Gly Asp
            340                 345                 350
Phe Leu Trp Arg Ser Phe Leu Leu Tyr Arg Ser Glu Ala Phe Phe Gln
        355                 360                 365
Val Arg Lys Asp Met Glu Ala Ile Ile Lys Arg Met Gln Pro Arg Ser
    370                 375                 380
Ser Arg Asp Gly Lys Thr Leu Thr Phe Asp Gly Phe Ser Arg Met Ala
385                 390                 395                 400
Ile Pro Ile Ser Lys Pro Ala Ile Ile Glu Val Ala Pro Pro Lys Val
                405                 410                 415
Gly Ser Ser Asp Pro Ala Phe Val Arg Ala Glu Ile Ala Ile Glu Val
            420                 425                 430
Gly Arg Leu Ala Asp His Ile Arg Lys Glu Trp Asp Ser Leu Arg Pro
        435                 440                 445
Asp Asp Val Val Phe Leu Leu Ala Val Gln Pro Gly Asn Ala Asn Asn
    450                 455                 460
Ser Val Phe Arg Asp Ser Ser Val Glu Thr Pro Ser Leu Met His Leu
465                 470                 475                 480
Arg Thr Ala Thr Val Val Gln Val Leu Asp Glu Gln Gly Arg Pro Leu
                485                 490                 495
Arg Glu Pro Val Val Gly His Thr Asn Gly Tyr Gln Ser Arg Pro Arg
            500                 505                 510
Leu Arg Arg Leu Leu Leu Asn Leu Asp Pro Ser Ala Phe Lys Ala Asp
        515                 520                 525
Lys Asp Arg Thr Xaa Gln Gly Lys Gln Asp Ile Tyr Pro Leu Ile Asn
    530                 535                 540
Val Ile Ala Arg Arg Lys Gly Arg Glu Asn Asn Phe Arg Ser Ile Leu
```

545 550 555 560
Glu Asn Met Gln Arg Leu Ile Val Ser Asp Val Thr Leu Pro Ser Trp
565 570 575
Ile Gln Asp Ile Phe Leu Gly Tyr Gly Asp Pro Ala Gly Ala Arg Tyr
580 585 590
Thr Gly Ile Ala Gln Pro Thr Glu Val Ser
595 600

<210> 31537
<211> 107
<212> PRT
<213> A.fumigatus

<400> 31537
Glu Leu Phe Asn Leu Arg Asn Val Gln Glu Thr Ser Phe Ser Phe Ser
1 5 10 15
Gly His Glu Met Thr Thr Met Ser Asp Lys Leu Glu Pro Leu Ala Ile
20 25 30
Val Gly Met Lys Trp Arg Phe Ser Gly Glu Ala Asn Ser Ala Ser Gly
35 40 45
Phe Trp Asp Val Leu Thr Asn Ala Arg Ser Ala Lys Ser Arg Ile Gln
50 55 60
Ala Asp Arg Phe Asn Val Asp Ala His Tyr His Pro Ser Ala Asp Arg
65 70 75 80
Asn Gly Ser Val Ser Ala Phe Asn Ile Pro Trp Gln Ser Asp Ala Glu
85 90 95
Ser Leu Arg Arg Ser Leu Arg Lys Asp Thr Ser
100 105

<210> 31538
<211> 80
<212> PRT
<213> A.fumigatus

<400> 31538
Phe Gly Lys Gly Ser Ile Thr Ile Cys Val Arg Val Thr Ser Ser Leu
1 5 10 15
Lys Thr Gly Glu Ser Ala Thr Asp Arg Ser Cys Gly Met His His Glu
20 25 30
Ile Cys Leu Leu Thr Glu Leu Thr Arg His Ser Leu Asn Leu Met Phe
35 40 45
Thr Ile Ala Ala Val Ala Thr Asn Val Cys Ala Leu Pro Val Gly Thr
50 55 60
Ile Leu Asp Gln Tyr Gly Pro Arg Val Cys Gly Ile Ile Ser Ser Ile
65 70 75 80

<210> 31539
<211> 64
<212> PRT
<213> A.fumigatus

<400> 31539
His Arg Met Leu Ile Glu Ser Gly Gly Ala Ser Ser Pro Tyr Met Gln
1 5 10 15
Met Tyr Met Tyr Glu Asp Ser Trp Glu Leu Arg Asp Pro Ala Arg Leu
20 25 30

```
Leu Leu Thr Gln Asp Ser Ile Thr Ala Thr Phe Glu Lys Thr Gln Phe
        35                  40                  45
Cys Ser Asn Lys Leu Asp Pro Arg Arg Asn Thr Ser Ser Pro Lys Pro
    50                  55                  60

<210> 31540
<211> 239
<212> PRT
<213> A.fumigatus

<400> 31540
Asn Leu Ile Lys Ala Thr Val Cys Arg Leu Gln Pro Lys Leu Cys Phe
1               5                   10                  15
Cys Ser Ala Ser His Leu Gln Cys Ile Ala Met Ser Leu Asn Arg Val
            20                  25                  30
Ser Tyr Leu Glu Ser Trp Gly Gln Thr Arg Pro Gly Ser Leu Gln Gln
        35                  40                  45
Gln Gln Gln Gly Gln Glu Asp Gly Asp Ser Asp Ser Val Asp Gly Arg
    50                  55                  60
Asn Val Asp Leu Pro Glu Ser Ser Leu Ser Ser Ser Phe Gln Ser Thr
65                  70                  75                  80
Tyr Thr Tyr Arg Leu Asn Phe Asn Pro Tyr Ala Gly Pro Gly Trp Thr
                85                  90                  95
Gln Thr Pro Asp Glu Val Ala Pro Glu Val Leu Pro Ser Gly Pro Glu
            100                 105                 110
Thr Pro Thr Ile Lys Thr Gln Pro Lys Pro Leu Glu Glu Gly Asp His
        115                 120                 125
Gly Arg Tyr Asp Pro Gln His Ala Ser Leu Arg Leu Pro Asn Glu Asp
    130                 135                 140
Tyr Pro Leu Gln Thr Thr Gly Ala Phe Glu Val Ser Ser Thr Arg Arg
145                 150                 155                 160
Ile Cys Lys Asn Pro Val Lys Pro Cys Leu Phe Thr Thr Arg Glu Ile
                165                 170                 175
Leu Met Arg Tyr Leu Gly Gln Val Ile Val Ala Val Ile Tyr Cys Phe
            180                 185                 190
Leu Ala Ala Gly Val Val Phe Gly Phe Ala Ala Leu Lys Pro Val Leu
        195                 200                 205
Ile Arg Glu Gly Val Tyr His Asn Leu Cys Ser Arg Asp Glu Leu Ser
    210                 215                 220
Lys Asn Arg Gly Val Cys Tyr Gly Gln Glu Leu Arg Tyr Ala Pro
225                 230                 235

<210> 31541
<211> 423
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (163),(165)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31541
Arg Val Lys Val Leu Asp Asp Leu Cys Arg Leu Val Asp Gly Glu Gln
1               5                   10                  15
Leu His Phe Leu Arg Ile Lys Ser Leu Ser Gln Thr Phe Thr Leu Glu
```

```
            20                  25                  30
Leu Ile Glu Ser Ile Leu Thr Asn Ser Gly Arg Leu Phe Val Gly His
        35                  40                  45
Ala Glu Leu Thr His Val Leu Arg Thr Arg Leu Met Pro Met Thr Val
    50                  55                  60
Arg Tyr Leu Ser Glu Arg His Gly Phe Ala Leu Thr Ser Arg Val Ala
65                  70                  75                  80
Arg Ile Leu Leu Ile Leu Leu Lys Arg Tyr Met Ser Leu Leu Thr Ala
                85                  90                  95
Glu Cys Glu Met Ala Leu Gly Leu Leu Thr His Leu Leu Glu Pro Asp
            100                 105                 110
Gly Thr Ser Pro Trp Lys Arg Val Leu Cys Met Glu Ile Phe Arg Gly
        115                 120                 125
Leu Tyr Ala Glu Pro Gly Leu Val Arg Leu Ile Tyr Ser Leu Tyr Asp
    130                 135                 140
Gly Glu Asn Asn Arg Lys Asn Ile Leu Arg Asp His Met Ala Ala Phe
145                 150                 155                 160
Gly Cys Xaa Gly Xaa Gly Glu Pro Phe Met Asn Gly Val Ser Ser Arg
                165                 170                 175
Ser Thr Val Pro Met Arg Ala Val His Ala Arg Ser Ile Thr Glu Glu
            180                 185                 190
Gln Ile Thr Leu Glu Ala Val Gly Phe Ala Gly Val Ile Gly Ala Ile
        195                 200                 205
Gly His Ser Thr Glu Thr Asn Phe Gln Gly Ile Ser Ser Gln Trp Ser
    210                 215                 220
Thr Val Arg Thr Pro Tyr Ile Glu Leu Leu Asp Lys Thr Asp Pro Pro
225                 230                 235                 240
Pro Pro Arg Glu Thr Tyr Ile Tyr Ser Leu Val Leu Asn Cys Ile Thr
                245                 250                 255
Ser Phe Ala Glu Gly Leu Ala Lys Phe Ile Leu Pro Leu Thr Val Pro
            260                 265                 270
Asp Ser Lys Gln Lys Arg Arg Ser Arg Met Thr Ser Pro Asp Lys Ser
        275                 280                 285
Asn Ser Pro Lys Pro Ala His Ile Tyr Gln Arg Met Asp Ala Ser Thr
    290                 295                 300
Thr Ile His Arg Ser Asn Ser Lys Lys Leu Ala Ile Pro Leu Asn Pro
305                 310                 315                 320
Leu Asp Leu Asp Ser His Pro Gln Leu Thr Ala Ile Lys Ala Cys Ala
                325                 330                 335
Gly Ile Met Glu Asn Cys Trp Pro Ala Ile Leu Ala Ala Cys Ser Thr
            340                 345                 350
Phe Leu Tyr Ala Ser Leu Asp Glu Asp Tyr Tyr His Asn Leu Val Arg
        355                 360                 365
Ser Phe Gln Lys Leu Ala His Val Ala Gly Leu Leu Arg Leu Ser Val
    370                 375                 380
Pro Arg Asp Ala Phe Leu Thr Thr Leu Ala Lys Ala Thr Met Pro Ala
385                 390                 395                 400
Glu Met Ala Gly Ala Ser Thr Ala Ala Ala Ser Asp Ser His Ser Ile
                405                 410                 415
Pro Ala Met Asp Glu Lys Arg
            420
```

<210> 31542
<211> 97
<212> PRT
<213> A.fumigatus

<400> 31542
Arg His Cys Leu Gln Leu Pro Arg Leu Arg Tyr Leu Leu Val Gly Val
1 5 10 15
Lys Pro Cys His Met Ser Pro Leu Leu Leu Leu Gly Lys Ile Thr Glu
20 25 30
Tyr Pro Arg Asp Leu Val Arg Lys Pro Lys Phe Val Asp Pro Phe Ile
35 40 45
Leu Ala Cys His Ser Arg His Ala Lys Leu Ala Gly Ile Gly Val Val
50 55 60
Cys Leu Gln Arg Leu Val Ala Ser Arg Ser Leu Pro Ser Glu Arg Leu
65 70 75 80
Asn Asp Val Leu Gly Gly Leu Lys Glu Thr Thr Ser Leu Ser Met Gln
85 90 95
Ser

<210> 31543
<211> 98
<212> PRT
<213> A.fumigatus

<400> 31543
Phe Leu Val Val Val Tyr Tyr Tyr Tyr Tyr Tyr Tyr Tyr Leu Ala Cys Pro
1 5 10 15
His Thr Arg Ser Ser Thr Phe Phe Ser Ser Val Ser Ile Thr His Phe
20 25 30
Phe Pro Leu Leu Ser Ile Ser Phe Pro Glu Tyr Arg Ser Pro Val Tyr
35 40 45
Leu Thr Met Val Leu Ile Asp Lys Gln Glu Tyr Leu Thr Gln Glu Glu
50 55 60
Gln Arg Leu Lys Glu Asp Arg Glu Arg Thr Arg Tyr Trp Lys Lys Trp
65 70 75 80
Gly Pro Tyr Val Ala Glu Arg Gln Trp Ala Thr Gly Glu Ser Ser Leu
85 90 95
Tyr Ser

<210> 31544
<211> 65
<212> PRT
<213> A.fumigatus

<400> 31544
Ser Thr Tyr Leu Leu Arg Leu Asp Phe Ser Tyr Asp His Ser Arg Ser
1 5 10 15
Arg Thr Tyr Arg Trp Gly Glu Asp Gly Ile Ala Gly Val Ser Asp Thr
20 25 30
His Gly Leu Glu Asn Ile Ala Phe Ala Phe Trp Asn Glu Lys Glu Tyr
35 40 45
Ala Tyr Ala Phe Leu Asp Met Gln Ser Glu Arg Ser Ser Asp Ile Asp
50 55 60
Cys
65

<210> 31545

<211> 111
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (94)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31545
Met Ser Tyr Asp Ser Ala Phe Thr Pro Gln Gly Ala Ala Leu Ser Asp
1 5 10 15
Leu Pro Trp Arg Glu Gln Leu Arg Arg Gly Phe Lys Asp Met Gly Ala
20 25 30
Arg Ser Trp Ser Ser Ala Lys Asn Phe Gly Ile Val Gly Ala Leu Tyr
35 40 45
Ala Gly Thr Glu Cys Cys Ile Glu Gly Leu Arg Ala Lys Asn Asp Leu
50 55 60
Thr Asn Ser Val Ala Ala Gly Cys Ile Thr Gly Gly Ile Leu Gly Ala
65 70 75 80
Lys Ala Gly Pro Gln Ala Ala Ala Ala Gly Cys Val Gly Xaa Ala Ala
85 90 95
Phe Ser Ala Ala Ile Asp Ala Tyr Met Arg Met Pro Ser Glu Glu
100 105 110

<210> 31546
<211> 164
<212> PRT
<213> A.fumigatus

<400> 31546
Thr Phe Leu Glu Asn Ile Arg Gln Ala Thr Val Gly Glu Glu Gly Ile
1 5 10 15
Asn Ala Thr Gln Ser Arg Gly Val Pro Pro Ala Arg Lys Arg Asp Ser
20 25 30
Ser Ser Ala Ser Arg Ser Arg Asp Arg Leu Ser Val His Gly Gly Lys
35 40 45
Ser Ser Arg Ser Pro Ser Ser Ala Arg Gly Lys Ala Ala Gly Thr Gln
50 55 60
Leu Ser Gly Lys Asp Thr Lys Ser Val Asp Ile Asp Val Ser Phe Trp
65 70 75 80
Ser Glu Phe Gly Ile Asp Thr Ala Gly Gln Lys Ser Thr Lys Ala Arg
85 90 95
Gly Ala Ser Asn Thr Pro Arg Gly Ala Thr Glu Gln Glu Thr Ser Asn
100 105 110
Asn Ile Asp Val Glu Glu Asn Trp Asp Asp Trp Asp Thr Pro Gln Pro
115 120 125
Lys Lys Thr His Thr Pro Ser Ser Ser Arg Ser Thr Leu Glu Ser Lys
130 135 140
His Asp Gln Ser Pro Ile Thr Gln Asn Ser Ser Pro Arg Thr Ser Gly
145 150 155 160
Arg Tyr Ala Ile

<210> 31547
<211> 402

<212> PRT
<213> A.fumigatus

<400> 31547

```
Thr Met Met Asn Pro Tyr Ile Ser Trp Ala Leu Leu Leu Val Val Ala
1               5                  10                  15
Gly Gly Leu Gly Trp Tyr Tyr Asn Ala Pro Asn Pro Lys Ala Lys Pro
            20                  25                  30
Thr Val Lys Pro Ala Ala Glu Lys Ile Glu Ser Ala Thr Gly Val Lys
        35                  40                  45
Lys Pro Lys Lys Lys Ala Lys Lys Ser His Glu Pro Thr Ser Ser Ala
    50                  55                  60
Thr Thr Lys Lys Val Glu Glu Lys Pro Ala Phe Glu Asp Gly Ala Thr
65                  70                  75                  80
Glu Gly Asp Asp Gly Asp Glu Glu Ile Asp Arg Lys Glu Met Ala Lys
                85                  90                  95
Arg Phe Thr Ala Gly Glu Ser Gly Ile Pro Ala Gln Gly Ser Gly Ser
            100                 105                 110
Glu Gly Lys Ser Gln Lys Lys Lys Lys Lys Thr Thr Ser Gln Leu Glu
        115                 120                 125
Ala Glu Glu Ser Lys Arg Ser Gly Ser Arg Val Ser Ala Arg Thr Ser
    130                 135                 140
Ser Thr Ala Gly Ala Asp Ala Asp Asp Asp Leu Ser Pro Ala Gly Ser
145                 150                 155                 160
Pro Met Val Lys Pro Thr Ala Ser Ser Ala Gly Tyr Val Ser Asp Met
                165                 170                 175
Leu Glu Ala Pro Ala Pro Gly Ala Ser Val Leu Arg Val Thr Gly Ser
            180                 185                 190
Met Glu Ala Pro Gln Lys Lys Gln Lys Ala Gln Ser Phe Lys Gln Val
        195                 200                 205
Glu Thr Lys Lys Gln Arg Gln Gln Arg Ala Lys Asn Glu Ala Arg Lys
    210                 215                 220
Gln Gln Val Gln Glu Ala Glu Ala Glu Arg Arg Lys Leu Leu Glu Lys
225                 230                 235                 240
Gln Leu His Thr Ala Arg Glu Ala Glu Arg Arg Glu Ala Ala Lys Thr
                245                 250                 255
Lys Leu Val Ala Pro Gln Ser Asn Ala Trp Gln Ala Lys Glu Val Asn
            260                 265                 270
Pro Thr Ser Asn Gly Thr Pro Asn Val Ser Gln Gly Pro Asn Val Glu
        275                 280                 285
Leu Leu Asp Thr Phe Glu Thr Pro Ser Ser Lys Gln Ser Pro Ala Thr
    290                 295                 300
Thr Ser Ser Ser Lys Lys Trp Asp Gln Gly Leu Pro Ser Glu Glu Glu
305                 310                 315                 320
Gln Met Arg Ile Leu Gly Ala Asp Pro Ser Asp Asp Trp Thr Thr Val
                325                 330                 335
Ser Ser Lys Lys Pro Lys Lys Lys Gly Gly Lys Ala Asp Glu Ser Phe
            340                 345                 350
Ser Glu Ala Ser Ala Ser Glu Thr Gln Leu Thr Pro Ala Ala Pro Ala
        355                 360                 365
Ala Val Pro Ala Ala Pro Lys Val Thr Val Thr Pro Thr Tyr Ile Pro
    370                 375                 380
Asp Ile Leu Arg Ser Lys Gln Lys Gly His Pro Leu Asp Ser Asp Trp
385                 390                 395                 400
Ala Ala
```

<210> 31548
<211> 80
<212> PRT
<213> A.fumigatus

<400> 31548
Ile Gly Ser Leu Gln Asn Phe Gln Ser Ile Asn Tyr Leu Arg Ser Val
1 5 10 15
Thr Thr Arg Gly Tyr Ser Leu Pro Asn Leu Leu Arg Arg Ser Ala Asn
20 25 30
Phe Tyr Phe Lys Glu Arg Ser Ile Glu Thr Thr Thr Ile Asn Ile Thr
35 40 45
Thr Phe Leu Tyr Phe Phe Leu Ser Leu Leu Leu Leu Phe Glu Lys Pro
50 55 60
Ile Cys Pro Arg Leu Leu Arg Ser Tyr Thr Asp Ala Pro Leu Arg Ser
65 70 75 80

<210> 31549
<211> 185
<212> PRT
<213> A.fumigatus

<400> 31549
Ser Pro Ile Arg Pro Leu Cys Phe Leu Pro Arg Gly Glu Asp Ala Pro
1 5 10 15
Leu Pro Pro Thr Thr Ile Leu Ser Ser Lys Ser Ile Ser Gln Ser Ala
20 25 30
Ala His Asp Phe Leu Ala Ala Tyr Leu Asp Arg Ala Ala Thr Asp Pro
35 40 45
Ala Leu Gln Pro Asn Ala Ser Ile Ser Glu His Gly Pro Ile Ser Arg
50 55 60
Thr Thr Ala Ala Ala Pro Asn Leu Ile Leu His Asn Leu Lys Arg Val
65 70 75 80
Gln Ala Gly Leu Ala Gly Glu Val Leu Gly Arg Asp Leu Thr Leu Ala
85 90 95
Lys Ile Asn Ala Gly Glu Ala Leu Gln Gly Glu Ser Gly Asp Asn Val
100 105 110
Val Trp Glu Glu Thr Lys His Glu Gln Val Ala Ala Asp Asp Ala Met
115 120 125
Asp Asp Asp Glu Glu Glu Met Arg Gly Glu Asp Asp Glu Glu Asn Glu
130 135 140
Gln Gln Pro Ser Arg Val Gly Gly Glu Ala Asp Lys His Thr Val Asp
145 150 155 160
Lys Glu Glu Arg Lys Arg Lys Lys Lys Glu Arg Arg Leu Ala Glu Lys
165 170 175
Arg Ala Lys Ala Lys Gly Ala Asp Ala
180 185

<210> 31550
<211> 253
<212> PRT
<213> A.fumigatus

<400> 31550
Ala Tyr Gly Arg Ala Lys Ala Lys Phe Gly Phe Ile Ser Gly Leu Tyr

```
1               5                   10                  15
Gly Gln Ile Gln Asn Leu Ala Phe Ile Tyr Gly Asp Val Leu Pro Lys
            20                  25                  30
Leu Trp Gly Leu Ser Gly Leu Leu Leu Ala Arg Tyr Phe Pro Ser Arg
        35                  40                  45
Phe Gln Gly Glu Ile Ser Gln Thr Leu Leu Phe Ile Phe Gly Phe Asn
    50                  55                  60
Leu Ile Ser Thr Val Leu Ser Leu Pro Val Ser Tyr Tyr Asn Thr Phe
65                  70                  75                  80
Val Leu Glu Glu Lys Phe Gly Phe Asn Lys Gln Thr Leu Lys Leu Trp
                85                  90                  95
Val Thr Asp Met Leu Lys Gly Gln Met Leu Gly Ile Val Leu Gly Thr
            100                 105                 110
Pro Ile Ile Ser Ala Val Leu Lys Ile Val Gln Lys Thr Gly Asn Ser
        115                 120                 125
Phe Phe Tyr Tyr Leu Trp Leu Phe Gly Val Phe Val Gln Ile Phe Ala
    130                 135                 140
Ile Thr Ile Tyr Pro Ile Val Ile Leu Pro Leu Phe Asn Lys Leu Ser
145                 150                 155                 160
Pro Leu Glu Pro Gly Glu Leu Lys Thr Gly Val Glu Arg Leu Ala Arg
                165                 170                 175
Glu Leu Lys Phe Leu Leu His Glu Leu Tyr Val Ile Asp Gly Ser Lys
            180                 185                 190
Arg Ser Ala His Ser Asn Ala Tyr Phe Tyr Ala Leu Pro Trp Lys Lys
        195                 200                 205
His Ile Val Ile Tyr Asp Thr Leu Ile Glu Lys Ser Glu Thr Glu Glu
    210                 215                 220
Val Val Ala Val Leu Ser His Glu Leu Gly His Trp Ser Leu Gly His
225                 230                 235                 240
Thr Thr Lys Leu Phe Ala Ile Ala Gln Val Arg Val Tyr
                245                 250
```

<210> 31551
<211> 78
<212> PRT
<213> A.fumigatus

<400> 31551

```
Ser His Met Phe Tyr Ile Phe Ala Leu Phe Ser Val Phe Val Asn Asn
1               5                   10                  15
Lys Ser Leu Tyr Gln Ser Phe Gly Phe His Gln Glu Met Pro Ile Met
            20                  25                  30
Ile Gly Phe Leu Leu Phe Ser Asp Ala Leu Ala Pro Met Asp Ala Val
        35                  40                  45
Val Lys Leu Leu Met Asn Val Leu Ser Arg Lys Phe Glu Phe Glu Ala
    50                  55                  60
Gly Met Ile Ser Val Pro Ser Glu Ile Ser Thr Asp Arg Ser
65                  70                  75
```

<210> 31552
<211> 145
<212> PRT
<213> A.fumigatus

<400> 31552

```
Ala Ser Ala Pro Leu Ala Leu Ala Leu Phe Ser Ala Asn Arg Arg Ser
```

```
1               5                   10                  15
Phe Phe Phe Leu Phe Arg Ser Ser Leu Ser Thr Val Cys Leu Ser Ala
            20                  25                  30
Ser Pro Pro Thr Leu Leu Gly Cys Cys Ser Phe Ser Ser Ser Ser Ser
        35                  40                  45
Pro Arg Ile Ser Ser Ser Ser Ser Ser Ile Ala Ser Ser Ala Ala Thr
    50                  55                  60
Cys Ser Cys Leu Val Ser Ser His Thr Thr Leu Ser Pro Leu Ser Pro
65                  70                  75                  80
Cys Ser Ala Ser Pro Ala Leu Ile Phe Ala Arg Val Lys Ser Arg Pro
                85                  90                  95
Arg Thr Ser Pro Ala Asn Pro Ala Trp Thr Arg Phe Arg Leu Cys Arg
            100                 105                 110
Met Arg Phe Gly Ala Ala Ala Val Val Arg Glu Met Gly Pro Cys Ser
        115                 120                 125
Leu Met Leu Ala Leu Gly Cys Arg Ala Gly Ser Val Ala Ala Arg Ser
    130                 135                 140
Arg
145
```

<210> 31553
<211> 93
<212> PRT
<213> A.fumigatus

<400> 31553

```
Phe Leu Ser Pro Arg Lys Ser Leu Gln Thr Glu Ala Asp Cys Ala Thr
1               5                   10                  15
Asp Ala Phe Ala Val Lys Leu Gly Tyr Ser Glu Gln Leu Ala Ala Ser
            20                  25                  30
Leu Leu Lys Leu Gln Ile Gln Asn Leu Ser Thr Met Asp Ala Asp Trp
        35                  40                  45
Met Tyr Ala Ser Tyr His Tyr Ser His Pro Ile Leu Thr Glu Arg Leu
    50                  55                  60
Lys Ala Leu Gly Trp Gln Gly Gly Lys Val Thr Asp Ala Lys Thr Glu
65                  70                  75                  80
Tyr Ser Glu Arg Pro Val Lys Ala Ala Asp Arg Glu Leu
                85                  90
```

<210> 31554
<211> 269
<212> PRT
<213> A.fumigatus

<400> 31554

```
Ile Thr Ile His Pro Ala Gly Val Leu Val Ser Val Asn Thr Thr Arg
1               5                   10                  15
Gln Arg Thr Thr Gly Gln Gln His Ser Ala Leu Phe Lys Pro Pro Val
            20                  25                  30
Val Cys Ala Glu Phe Pro Ala Met Tyr Ile Leu Glu Val Ser Ser Gln
        35                  40                  45
Lys Tyr Cys Ser Cys Cys Thr Ser Leu Lys Leu Thr Glu Arg Phe Cys
    50                  55                  60
Pro Arg Gln Gln Leu Ala Arg Leu Leu Asp Arg Pro Phe Phe Pro Trp
65                  70                  75                  80
Lys Asn Val Leu Val Gly Phe Ser Leu Gly Gln Phe Ile Leu Glu Gly
```

```
                85                  90                  95
Phe Leu Ser Phe Arg Gln Tyr Lys Val Leu Gln Arg Thr Lys Pro Pro
            100                 105                 110
Lys Val Leu Glu Asn Glu Val Ser Gln Lys Val Phe Asp Gln Ser Gln
        115                 120                 125
Val Ser Arg Asp Asp Tyr Ile Ala Ile Val Lys Ile Ala Gly Leu Ile
    130                 135                 140
Phe Leu Pro Phe Ser Ile Gly Val Trp Ser Arg Lys Ser Gln Val Trp
145                 150                 155                 160
Phe His Leu Gly Ser Leu Arg Ser Asn Pro Glu Ser Cys Ile Tyr Leu
                165                 170                 175
Arg Arg Cys Pro Pro Gln Ala Leu Gly Ile Glu Arg Ser Leu Ala Ser
            180                 185                 190
Pro Val Leu Ser Leu Ser Val Ser Arg Arg Asp Phe Pro Asp Ser Ser
        195                 200                 205
Val His Leu Arg Phe Gln Pro Asp Gln His Arg Ser Val Pro Ala Ser
    210                 215                 220
Phe Ile Leu Gln His Leu Arg Ser Arg Gly Glu Val Trp Leu Gln Gln
225                 230                 235                 240
Ala Asp Ala Gln Ala Leu Gly His Arg His Ala Gln Gly Ser Asp Ala
                245                 250                 255
Arg Asn Cys Val Gly Asn Pro Asp His Gln Arg Gly Ala
            260                 265
```

<210> 31555
<211> 139
<212> PRT
<213> A.fumigatus

<400> 31555

```
Gly Gln Pro Ser Ile Lys Pro Asn Pro Glu Pro Trp Gln Pro Arg Leu
1               5                   10                  15
Cys Thr Thr Ala Ser Arg Thr Pro Pro Thr Pro Pro Lys Ser Ser Thr
            20                  25                  30
Ser Ser Asn Pro Leu Ser Ala Pro Gln Thr Pro Asp Gln Thr Gly Gln
        35                  40                  45
Ala Thr Lys Leu Ser Pro Gln Leu Ser Ala Ser Thr Pro Pro Thr Ser
    50                  55                  60
Tyr Pro Gly Ser Pro Arg Arg Thr Ala His Ser Ser Ser Arg Pro Thr
65                  70                  75                  80
Pro Pro Ala Arg Arg Ser Pro Ala Ser Glu Ser Arg Gly Pro Ser Leu
                85                  90                  95
Thr Thr Ala Ser Leu Ala Ser Ser Cys Ser Leu Ser Met Lys Arg Thr
            100                 105                 110
Ser Ala Leu Arg Ser Gly Gly Arg Ser Ser Leu Pro Arg Arg Cys Thr
        115                 120                 125
Pro Arg Gly Asn Gly Glu Leu Asn Ala Gly Gly
    130                 135
```

<210> 31556
<211> 76
<212> PRT
<213> A.fumigatus

<400> 31556

```
Val Asp Ala Val Met Tyr Cys Glu Asp Lys Val His Tyr Leu Gln Val
```

```
1               5                   10                  15
His Ile Ala Glu Leu Gln Phe Leu Gln Ala Cys Ile Tyr Ser Ser Gly
            20                  25                  30
Asp Val Arg Asn Ile Arg Asn Tyr Leu Gly Cys His Lys Lys Leu Leu
        35                  40                  45
Pro Trp Asp Ala Thr Leu Phe Asp Gly Gln Ala Tyr Leu Trp Phe Cys
    50                  55                  60
Thr Ile Asp Phe Arg Ala Ile Gln Val Val Ile Ser
65                  70                  75
```

<210> 31557
<211> 196
<212> PRT
<213> A.fumigatus

<400> 31557

```
Leu Arg Arg Pro Thr Arg Leu Ile Arg Ser Ile Ala Pro Cys Arg Tyr
1               5                   10                  15
Leu Ile His Ser Pro Phe Phe Ala Lys Ser Asp Asn Glu Leu Gln Glu
            20                  25                  30
Ala Trp Ala Ala Met Glu Lys Val Lys Ala Ala Gly Lys Ala Arg Ser
        35                  40                  45
Ile Gly Val Ser Asn Phe Leu Gln Ser His Leu Glu Ala Ile Leu Lys
    50                  55                  60
Ser Ala Lys Val Thr Pro Ser Ile Asn Gln Ile Glu Tyr His Pro Tyr
65                  70                  75                  80
Ile Gln His Gly Gly Leu Val Gln Phe Gln Gly Asp Lys Gly Ile Lys
                85                  90                  95
Thr Ala Ser Tyr Gly Pro Leu Thr Pro Ile Thr Arg Ala Lys Asp Gly
            100                 105                 110
Pro Leu Gly Glu Val Leu Gln Thr Leu Ala Tyr Lys Tyr Gly Val Ser
        115                 120                 125
Glu Gly Glu Ile Leu Leu Arg Trp Ser Ile Asp Arg Gly Asp Val Ser
    130                 135                 140
Ile Thr Thr Ser Ser Lys Glu Ser Arg Leu Ser Ser Tyr Leu Arg Ala
145                 150                 155                 160
Leu Arg Phe Arg Leu Thr Pro Lys Glu Leu Asp Glu Ile Ser Ala Ile
                165                 170                 175
Gly Arg Gln Lys His Tyr Arg Ala Phe Trp Arg Asp Lys Phe Ala Asp
            180                 185                 190
Asp Asp Arg Gln
        195
```

<210> 31558
<211> 99
<212> PRT
<213> A.fumigatus

<400> 31558

```
Phe Ser Leu Cys Gln Leu Gly Tyr Gly Thr Gly Thr Ala Trp Phe Lys
1               5                   10                  15
Lys Gly Gly Ala Thr Gly Ile Asp Arg Glu Leu Val Glu Ser Ile Lys
            20                  25                  30
Thr Ala Ile Lys Leu Gly Tyr His His Leu Asp Gly Ala Glu Val Tyr
        35                  40                  45
Gly Thr Glu Pro Glu Ile Gly Leu Ala Ile Lys Glu Ser Gly Val Pro
```

```
    50                  55                  60
Arg Glu Gln Leu Phe Val Thr Thr Lys Val Ile Thr Asn Ile Ala Asp
65                  70                  75                  80
Ile Pro Arg Ala Ile Asp Ala Ser Leu Glu Lys Leu Gln Leu Ser Tyr
                85                  90                  95
Val Asp Leu
```

<210> 31559
<211> 245
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (206)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31559

```
Ala Val Gly Met Leu Ser Thr Ser Cys Leu Gln Gln Ala Ser Leu Thr
1               5                   10                  15
Glu Glu Ser Ser Pro Lys Met Gly Leu Leu Val His Ser Leu Gly His
            20                  25                  30
Leu Met Ala Asn Glu Tyr Val Leu Ile Ala Leu Ala Met Leu Phe Phe
        35                  40                  45
Leu Val Thr Leu Ser Ser Arg Ser His Ser Arg Glu Arg Ser Ser Thr
    50                  55                  60
Ser Ala Ser Pro Ser Leu Asn Ser Thr Arg Lys Glu Cys Lys Ala Pro
65                  70                  75                  80
Asn Thr Pro Ser Trp Gly Arg Arg Thr Pro Arg Pro Ile Gln Trp Tyr
                85                  90                  95
Gln Asp Met Tyr Phe Gln Ile His Asn Leu Glu Gln Tyr Pro Thr Val
            100                 105                 110
Leu Glu Pro Ala Arg Asp Glu Leu Leu Ala Met Ile Ala Asp Gly Val
        115                 120                 125
Ser Leu Ala Leu Glu Ala Pro Glu Lys Gly Ile Leu Arg Val Glu Ser
    130                 135                 140
Tyr Asp Ala Glu Arg Leu Arg Ser Phe Ile Asn Gly Glu His Glu Lys
145                 150                 155                 160
Thr Met Asn Glu Trp Ala Arg Tyr His Asp Arg Arg Lys Leu Gly Leu
                165                 170                 175
Gly Pro Thr Leu Phe Gly Asn Ile Ala Glu Ala Lys Lys Trp Leu Thr
            180                 185                 190
Gln Arg Ala Pro Ala Lys Leu Val Asp Gly Ala Trp Leu Xaa His Ile
        195                 200                 205
His Lys Ile Asn Thr Pro Phe Ala Leu Arg Arg Val Thr Lys Asp Ala
    210                 215                 220
Trp Gln Ile Leu Ser Glu Glu Leu Gly Arg Arg Arg Cys Gln Pro Lys
225                 230                 235                 240
Thr Cys Ile His Leu
                245
```

<210> 31560
<211> 311
<212> PRT
<213> A.fumigatus

<400> 31560
His Glu Ser Tyr Ser Val Glu Ser Val His Ile Ile Arg His Phe Ala
1 5 10 15
Asp Gln Cys Ser Asn Arg Lys Leu Pro Ile Leu Tyr Ser Leu Ile Ala
20 25 30
Cys Phe Phe Gly Thr Gly Met Val Ala Gly Glu Thr Ser Leu Pro Val
35 40 45
Leu Phe Thr Gly Arg Val Met Gln Gly Ile Ala Gly Ser Ser Val Trp
50 55 60
Ile Ile Gly Leu Ala Thr Val Ala Asp Thr Val Gly Gly Asp Asn Met
65 70 75 80
Gly Lys Val Glu Gly Ile Met Met Ser Phe Leu Tyr Gly Gly Leu Ile
85 90 95
Gly Gly Pro Cys Ile Ala Gly Trp Leu Leu Ala Tyr Val Gly Tyr Trp
100 105 110
Gln Thr Trp Leu Leu Pro Leu Val Leu Leu Ile Ile Glu Phe Ile Ala
115 120 125
Arg Leu Val Met Val Glu Asn Cys Ala Val Pro Thr Ser Ser Ser Gly
130 135 140
Pro Glu Thr Ser Ser Lys Ala Asp Gly Ser Thr Lys Pro Leu Leu Ser
145 150 155 160
Pro Cys Glu Asp Thr Pro Thr Asn Tyr Pro Ser Glu Asn Phe Trp Arg
165 170 175
Ile Ile Leu Thr Asp Val Arg Ala Val Val Ala Ile Cys Val Ala Ile
180 185 190
Ser Ala Asn Thr Val Gly Thr Ser Phe His Ala Thr Leu Pro Leu His
195 200 205
Val Gln Glu Thr Phe Gly Trp Gly Ser Gly Arg Ser Gly Ser Leu Phe
210 215 220
Ala Cys Leu Ile Met Pro Thr Val Val Leu Ser Pro Val Ala Gly Trp
225 230 235 240
Leu Arg Asp Cys Phe Gly Val Arg Tyr Pro Ala Ser Ala Ala Ala Val
245 250 255
Phe Gln Ala Val Met Phe Gly Ile Leu Gly Leu Ala Gly Thr Asp Leu
260 265 270
Leu Pro Trp Thr Ser Ala Gln Ser Gly Gly Gly Ala Leu Tyr Thr Gly
275 280 285
Cys Ile Leu Ala Ile Gly Ala Ala Arg Pro Phe Thr Ala Asn Val Gly
290 295 300
Pro Val Glu Leu Ser Cys Glu
305 310

<210> 31561
<211> 115
<212> PRT
<213> A.fumigatus

<400> 31561
Pro Ser Ser Asn Met Val Lys Thr Arg Lys Arg Leu Ala Leu Ala Cys
1 5 10 15
Asp Thr Cys Arg Ser Arg Arg Val Lys Cys Asp Gly Glu Arg Pro Phe
20 25 30
Cys Ala Pro Cys Arg Thr Arg Gly Leu Asn Cys Phe Tyr Gln Gln Leu
35 40 45
Pro Glu Arg Pro Ala Thr Lys Tyr Ala Ser Ser Ser Pro Thr Ala Leu

```
    50                  55                  60
Gly Glu Leu Val Val Gly Thr Asp Ser Val Gln Ser Arg Asn Arg Thr
65                  70                  75                  80
Ser Gln Cys Gln Pro Ala Leu Arg Leu Pro His His Ala Val Val Gln
                85                  90                  95
Gly Val Ser Thr Asp Ser Gly Ala Ala Thr Ala Val Asp Gln Cys Thr
            100                 105                 110
Gly Val Ala
        115
```

<210> 31562
<211> 223
<212> PRT
<213> A.fumigatus

<400> 31562

```
Val Phe Leu Asp Ala Arg Phe Ile Arg Leu Lys His Thr Phe Gly Asn
1               5                   10                  15
Arg Leu Leu Arg Thr Ala Asn Met Ser Ser Ala Leu Gly Ser His Leu
            20                  25                  30
Leu Ala Asp Val Thr Lys Arg Lys Ala Ala Arg Ser Ala Arg Val Ala
        35                  40                  45
Ser Trp Asp Gln Ser Gly Leu Asn Glu Asp Ala Phe Val Val Leu Pro
    50                  55                  60
Gly Glu Thr Ala Val Leu Ala Asp Leu Gln Gly Pro Gly Ala Ile Thr
65                  70                  75                  80
His Leu Trp Phe Val Gln Thr Cys Arg Lys Ile Leu Gly Pro Gly Leu
                85                  90                  95
Ile Pro Tyr Thr Lys Ser Gly Val Ala Met Met Glu Ile His Asn Ala
            100                 105                 110
Leu Gly Leu Asn Phe Glu Val Asn Asp Pro Asp Tyr Tyr Arg Lys Val
        115                 120                 125
Leu Ile Lys Met Tyr Trp Asp Glu Ser Glu Ser Pro Asn Val Leu Ala
    130                 135                 140
Pro Ile Gly Asp Phe Phe Cys Leu Gly His Ser Met Ala Ala Asn Phe
145                 150                 155                 160
Gln Ser Leu Pro Phe Thr Val Ser Val Lys Pro Ser Glu Glu Lys Gln
                165                 170                 175
Tyr Gly Gly Ala Ala Ala Phe Asn Cys Tyr Leu Thr Met Pro Phe Asn
            180                 185                 190
Lys Arg Ala Arg Ile Glu Ile Glu Asn Gln Asn Asp Glu Ala Tyr Ile
        195                 200                 205
Gln Tyr Phe Tyr Ile Asp Tyr Glu Leu Tyr Ala Glu Pro Leu Ser
    210                 215                 220
```

<210> 31563
<211> 107
<212> PRT
<213> A.fumigatus

<400> 31563

```
Tyr Tyr Ser Ala Ser Tyr Gly Val Met Leu Ile Asp Ser Ser Gln Pro
1               5                   10                  15
Gln Arg Pro Pro Arg Gln Ser Arg Pro Arg Asn Val Pro Thr Thr Arg
            20                  25                  30
Ala His Pro Val Arg Thr Phe Ser Ala Leu Cys Ser Tyr Asn Asn Lys
```

```
        35                  40                  45
His Ala Pro Ser Asn Thr Lys Ala Glu Pro Gln Thr Phe Ala Val Phe
    50                  55                  60
Val Thr Asp His Gln Tyr Asp Ser Ser His Gly Ala Pro Tyr Gly Thr
65                  70                  75                  80
Cys Lys Ala Tyr Thr Cys Thr Ala Pro Thr Asp Ser Gln Met Thr Asp
                85                  90                  95
Val Asn Glu Asp Cys Trp Thr Phe Phe Trp Lys
            100                 105
```

<210> 31564
<211> 287
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (49)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31564

```
Ser Asn Asn Gly Glu Tyr Gly Arg Gln Gln Tyr Lys Gly Glu Ala Ser
1               5                   10                  15
Gly Glu Lys Trp Thr Glu Lys Asp Tyr Pro Ile Ala Asn Ala Ser Arg
            20                  25                  30
Phe His Glu Ala Ala Met Met Gln Thr His Pro Ser Met Val Ala Phe
        35                  40                  45
Xaa Met Gly Ser Asp Phe Trp Pro Asn Asp Arg Ala Thr Lys Ile Tyr
    50                  55                  60
Leu Asp Ala Leu His Arg Met Asp Trp Pro Val Pro Ile Ile Ala Ser
65                  70                  75                  80
Ala Ser Lys Arg Gly Tyr Pro Lys Val Leu Gly Pro Ser Gly Met Lys
                85                  90                  95
Met Asp Gly Pro Tyr Asp Trp Val Pro Pro Asn Tyr Phe Tyr Gly Asp
            100                 105                 110
Gln Leu Gly Ala Ala Phe Gly Phe Gly Ser Glu Glu Gly Ala Gly Val
        115                 120                 125
Gly Thr Pro Glu Leu Thr Ser Leu Arg Lys Phe Leu Ser Pro Lys Asp
    130                 135                 140
Leu Asp Ser Leu Trp Lys Asn Pro Asp Gln Asn Gln Tyr His Met Ser
145                 150                 155                 160
Arg Tyr Asp Ser Ser Phe Tyr Asn Arg Ala Leu Tyr Asn Lys Ala Leu
                165                 170                 175
Phe Ala Arg Tyr Gly Ala Pro Gly Ser Leu Glu Asp Tyr Leu Leu Lys
            180                 185                 190
Val Gln Met Met Asp Tyr Glu Ala Thr Arg Ala Glu Phe Glu Ala Phe
        195                 200                 205
Ser Val Arg Gln Asn Ala Ser Arg Pro Ala Thr Gly Val Ile Tyr Trp
    210                 215                 220
Met Leu Asn Ser Ala Trp Pro Asn Leu His Trp Gln Leu Phe Glu Tyr
225                 230                 235                 240
Tyr Phe Ser Ser Cys Arg Gly His Ile Ser Glu Pro Arg Ser Val Glu
                245                 250                 255
Glu Trp Asn Thr Trp Arg Met Thr Asn Glu Glu Arg Ala Val Tyr Leu
            260                 265                 270
Ile Asn Arg Ser Leu Glu Lys Lys Gly Ala Ser His Arg Leu Cys
```

275 280 285

<210> 31565
<211> 91
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (83)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31565
Ile Leu Val Asp His Ile Ile Val Leu Pro Phe Leu Ser Ser Arg Trp
1 5 10 15
Leu Tyr Val Leu Val Met His Tyr Gly Cys Ala Pro Ser Pro His Ile
20 25 30
Tyr Glu Ile Val Pro Leu Lys Leu Ile Asp Asn Pro Gly Gln Gly Tyr
35 40 45
Gln Thr Gln Asp Thr Glu Leu Thr Ile Val Cys Thr Asn Ser Asp Ser
50 55 60
Ser Met Ala Ser Thr Leu Thr Val Tyr Phe Gln Ser Pro Trp Arg Ala
65 70 75 80
Ala Ser Xaa Pro Arg Pro Ser Ala Phe Cys Arg
85 90

<210> 31566
<211> 198
<212> PRT
<213> A.fumigatus

<400> 31566
Glu Glu Arg Gly Leu Ala Ser Ser Leu Leu Thr Leu Leu Ile Gly Met
1 5 10 15
Ala Asn Ala Leu Phe Asn Gln Glu Val Thr Ile Asp Thr Thr Pro Thr
20 25 30
Ala Ser Lys Arg Val Ile Pro Val Lys Ala Val Thr Gln Ile Lys Asp
35 40 45
Val Ala Phe Leu Arg Leu Val Leu Lys Asn Pro Ser Thr Gly Ala Ile
50 55 60
Leu Ser Arg Asn Val Tyr Trp Leu Ser Ala Lys Asn Asp Val Leu Asp
65 70 75 80
Trp Glu Asn Ser Asp Trp Tyr Tyr Thr Pro Val Thr Lys Tyr Val Asp
85 90 95
Tyr Lys Ala Leu Ile Ser Met Pro Thr Ala Ala Val Thr Ala Ser Leu
100 105 110
Lys Arg Leu Pro Ala Lys Asp Gly Leu Ser Gln Val Gln Val Val Leu
115 120 125
Lys Asn Pro Ser Ala Thr Pro Ala Val Phe Met His Leu Ser Ala Ile
130 135 140
Asn Met Asp Thr Gln Glu Glu Ile Thr Pro Val Phe Trp Ser Asp Asn
145 150 155 160
Tyr Val Thr Val Phe Lys Gly Glu Ser Val Thr Leu Thr Ala Ala Phe
165 170 175
Pro Gly Gly Arg Ser Asn Trp Glu Val Ile Leu Ser Gly Ala Asn Val
180 185 190

Lys Arg Thr Leu Leu Ser
195

<210> 31567
<211> 63
<212> PRT
<213> A.fumigatus

<400> 31567
Asn Ile Ser Thr Ala Ser Lys Gly Phe Val Val Pro Glu Leu Phe Phe
1 5 10 15
Ser Phe Ala Ser Phe Pro Thr Leu Ser Ile Leu Ile Phe Pro Ser Leu
20 25 30
Ala Ser Pro Leu Gly His Leu Pro Asn Gln Phe Asp Ile Ile Leu Leu
35 40 45
Thr Leu Ala Trp Leu Trp Lys Ser Thr Tyr Ser Leu Gln Pro Leu
50 55 60

<210> 31568
<211> 186
<212> PRT
<213> A.fumigatus

<400> 31568
Arg Gly Ser Leu Thr Arg Ser Met Gln Ser Leu Leu Arg Arg Ile Thr
1 5 10 15
Thr Val Ser Ser Ser Glu Asp Gly Glu Ile Ala Val Leu Glu Ala Thr
20 25 30
Lys Asp Thr Gly Leu Gly Ile Val Leu Arg Val Pro Leu Leu Tyr Gly
35 40 45
Thr Ala Gln Asn Asn Ser Glu Ser Ala Val Asn Ile Leu Ile Asp Ala
50 55 60
Ile Trp Lys Ala Gln Asp Glu Asn Ala Gly Val Lys Met Asp Asp Trp
65 70 75 80
Ala Gln Arg Tyr Pro Thr Asn Thr Glu Asp Val Ala Arg Val Cys Arg
85 90 95
Asp Ile Val Ile Lys Tyr Val Lys Glu Arg Pro Arg Ile His Glu Leu
100 105 110
Pro Lys Val Leu His Phe Ser Ser Glu Asp Arg Met Thr Lys Tyr Glu
115 120 125
Met Cys Glu Lys Leu Ala Glu Val Leu Gly Leu Ser Leu Ala Gly Met
130 135 140
Ile Arg Asn Lys Gln Gly Asn Asp Pro Asn Ala Ser Val Gln Arg Pro
145 150 155 160
Tyr Asp Thr His Leu Ser Thr Lys Val Leu Lys Asp Leu Gly Ile Asp
165 170 175
Val Gln Thr Thr Asp Phe Val Ala Trp Trp
180 185

<210> 31569
<211> 145
<212> PRT
<213> A.fumigatus

<400> 31569
Arg Glu Gln Gly Asp Phe Pro His Pro Ile Ile Val Asp Glu Ser Ser

```
1               5                   10                  15
Trp Thr Leu Glu Thr Thr Ser Gln Pro Pro Gly Lys Glu Val Ser Val
            20                  25                  30
His Leu Asp Lys Val Asn Lys Met Glu Trp Trp Ala His Val Val Thr
        35                  40                  45
Thr Ala Pro Lys Ile Asp Val Ser Lys Ile Thr Pro Glu Asn Ser Ser
    50                  55                  60
Leu Ser Asp Leu Asp Gly Glu Thr Arg Ala Met Val Glu Lys Met Met
65                  70                  75                  80
Tyr Asp Gln Arg Gln Lys Glu Met Gly Gly Leu Thr Ser Asp Glu Gln
                85                  90                  95
Arg Lys Met Asp Ile Leu Lys Lys Phe Gln Ala Glu His Pro Gly Met
            100                 105                 110
Leu Ser Ser Arg Leu Gly Val Val Tyr Gly Leu Met Ser Cys Arg Asp
        115                 120                 125
Gly Leu Leu Glu Cys Lys Asp Trp Leu Arg Trp Cys Gly Ser Thr Ala
    130                 135                 140
Cys
145
```

<210> 31570
<211> 146
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (106)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31570

```
Gln Thr Gln Thr Pro Leu Leu Met His Thr Ile Ile Ala Val Ala Thr
1               5                   10                  15
Ser His Leu Arg Tyr Val Val Pro Asp Asn Thr Ala Tyr Lys Met Ala
            20                  25                  30
Glu Ala Tyr His Trp Gln Gln Ala Ile Ser Gln Tyr Ser Lys Glu Leu
        35                  40                  45
Gly Cys Ala Val Gly Pro His Asn Met Asp Ala Leu Phe Ser Thr Cys
    50                  55                  60
Leu Leu Met Thr Val His Ala Phe Gln Leu Glu Glu Tyr Asn Pro Arg
65                  70                  75                  80
Lys Ser Phe Val Phe Ser Asn Asp Pro Gln Thr Leu Ser Trp Leu Thr
                85                  90                  95
Leu Gln Gly Gly Leu Pro His Leu Leu Xaa Ala Tyr Gln Asn Leu Ala
            100                 105                 110
Val His Gln His Val Val Gly Arg Leu His Gly Asp Ser Thr Gly Glu
        115                 120                 125
Ser Asn Phe Arg Gly Ser Pro Thr Arg Thr Gly Gly Ser Pro Pro Gly
    130                 135                 140
Ala Gly
145
```

<210> 31571
<211> 81
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (27)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31571
Thr Ser Ile Ala Ala Thr Val Ser Thr Gly Phe Phe Ala Glu Tyr Leu
1 5 10 15
Phe Ser Asp Asp Ser Ala Tyr Ala Thr Ala Xaa Leu Ala Ser Ser Asn
20 25 30
Met Asn Arg Ala Ile Ile Cys Gly Ile Pro Ile Lys Gly Met Ala Cys
35 40 45
Asn Glu Ser His Ala Pro Val Asp Met Cys Lys Ser Glu Tyr Leu Ser
50 55 60
Ser Gly Gln Glu Ser Ala Thr Lys Ile Val Asn Ser Ile Ile Thr Gln
65 70 75 80
Ser

<210> 31572
<211> 124
<212> PRT
<213> A.fumigatus

<400> 31572
Ser Leu Val Arg Val Cys Ala Met Leu Ser Ile Lys Arg Thr Leu Leu
1 5 10 15
Leu Leu Gly Ala Val Leu Pro Ala Val Phe Gly Ala Pro Val His Glu
20 25 30
Thr Arg Arg Ala Ala Gln Lys Ile Pro Gly Lys Tyr Ile Val Thr Phe
35 40 45
Lys Pro Gly Thr Asp Thr Ala Thr Ile Glu Ser His Thr Leu Trp Ala
50 55 60
Thr Asp Leu His Lys Arg Asn Leu Glu Arg Arg Asp Thr Thr Ser Gly
65 70 75 80
Glu Pro Pro Val Gly Ile Glu Lys Ser Tyr Gln Ile Lys Asp Phe Ala
85 90 95
Ala Tyr Ala Gly Ser Phe Asp Asp Ala Pro Ile Asp Glu Ile Arg Lys
100 105 110
Ser Ala Asp Val Ser Thr Leu Gln Asn Pro Ser Thr
115 120

<210> 31573
<211> 154
<212> PRT
<213> A.fumigatus

<400> 31573
Ala Leu Ser Ser Glu Lys Arg Tyr Ser Ala Lys Lys Pro Val Leu Thr
1 5 10 15
Val Ala Ala Ile Glu Val Tyr Phe Ala Arg Cys Leu Gly Phe Ser Leu
20 25 30
Leu Thr Ile Ala Thr Leu Thr Ile Met Leu Thr Gly Ser Ile Pro Leu
35 40 45
Ser Ser Ala Val Ser Glu Thr Val Ser Thr Glu Asp Ser Asp Pro Lys

```
    50                  55                  60
Ala Pro Tyr Ala Val Pro Thr Leu Val Val Thr Ser Ile Tyr His Ala
65                  70                  75                  80
Ile Ser Ala Phe Tyr Ala Tyr Thr Trp Tyr Thr Thr Thr Asp Gln Gly
                85                  90                  95
Val Phe Ala Val Ala Met Val Gly Tyr Phe Ala Val Gly Ser Leu Gly
            100                 105                 110
Leu Trp Cys Thr Leu Phe Ala Ser Ser Gln Gly Lys Ile Ser Arg Lys
        115                 120                 125
Thr Gly Ala Asp Lys Arg Thr Thr Gly Tyr Pro Phe Gly Asn Arg Val
    130                 135                 140
Ala Glu Arg Lys His Val Glu Lys Ser Asp
145                 150
```

<210> 31574
<211> 107
<212> PRT
<213> A.fumigatus

<400> 31574

```
Arg Ala Gly Asp Ile Ser Arg Glu Arg Asn Ser Ile Tyr Ala Leu Tyr
1               5                   10                  15
Arg Ala Ser Ile Pro Arg Leu Ser Ala Thr Ser Gln His Gly Cys Leu
            20                  25                  30
Ser Asp Trp Arg Leu Pro Gly Leu Gln Ser Asn Ala Asn Val Ile Thr
        35                  40                  45
Ile Cys Arg Pro Val Lys His Gly Ile Met Tyr Phe Phe Pro Ser Cys
    50                  55                  60
Gln Ser His Ala Thr Lys Ser Arg Leu Gly Gly Pro Trp Leu Ala Ala
65                  70                  75                  80
Ile Arg Leu Val Asn Ile Leu Val Ser Asn Ala Cys Arg Asn Ala Lys
                85                  90                  95
Lys Lys Ser His Glu Val Ala Lys Tyr Pro Val
            100                 105
```

<210> 31575
<211> 168
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (5),(7)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31575

```
Leu Arg Pro Phe Xaa Gly Xaa Thr Leu Ser Ala Asp Pro Ser Ser Ala
1               5                   10                  15
Arg Gly Glu Asp Leu Ala Lys Asp Pro Thr Ala Ser Arg Val Leu Gln
            20                  25                  30
Gln Ala Leu Thr Ala Pro Thr Ser Thr Ser Gln Phe Arg Arg Gln Phe
        35                  40                  45
Thr Thr Arg Phe Ser Gly His Leu Val Glu Leu Ala Leu Asp Ser Ser
    50                  55                  60
Gly Ser His Val Val Asp Ala Leu Trp Pro Ala Thr Lys Asp Leu Phe
65                  70                  75                  80
```

```
Phe Val Lys Glu Arg Met Ala Gln Glu Leu Leu Asn Glu Glu Leu Ser
                85                  90                  95
Leu Arg Asp Ser Phe Val Gly Arg Ala Val Trp Arg Asn Trp Ser Met
            100                 105                 110
Asp Leu Tyr Lys Arg Arg Arg Gly Glu Trp Ala Ser Lys Ala Lys Gly
        115                 120                 125
Leu Asp Ser Ile Glu Asn Gly Gln Arg Glu Arg Pro Lys Ser Arg Ile
    130                 135                 140
Asp Leu Ala Arg Ala Lys Phe Ala Ala Lys Ala Ala Glu Glu Ser Ser
145                 150                 155                 160
Lys Ala Pro Val Ala Ala Lys Thr
                165
```

<210> 31576
<211> 277
<212> PRT
<213> A.fumigatus

<400> 31576

```
Leu Leu Gly Ala Val Glu Asp Leu Leu Ile Pro Phe Ile Gln Ser Ala
1               5                   10                  15
Asp Glu Asn Pro Leu Gly Leu Ala Leu Gln Gln Asn Gly Val Asn Gly
            20                  25                  30
Thr Asn Asp Thr Asn Gly Thr Asn Gly His Leu Lys Ser Pro Arg Thr
        35                  40                  45
Ala Leu Val Asp Tyr Lys Asn Pro Glu Glu Leu Arg Asp Ile Leu Gln
    50                  55                  60
Leu Ser Leu Pro Glu Lys Gly Thr Arg Gln Glu Gly Leu Ile Glu Val
65                  70                  75                  80
Leu Arg Lys Val Leu Lys Tyr Ser Val Asn Thr Trp His Gln Gly Phe
                85                  90                  95
Leu Asp Lys Leu Tyr Ala Ser Thr Asn Ala Pro Gly Val Ala Ser Glu
            100                 105                 110
Leu Ile Leu Ala Ala Leu Asn Thr Asn Val His Val Tyr Gln Val Ser
        115                 120                 125
Pro Ala Leu Thr Ile Ile Glu Lys Phe Thr Gly Glu Lys Leu Ala Ser
    130                 135                 140
Leu Phe Gly Leu Asn Gly Pro Arg Ala Gly Gly Ile Ser Val Gln Gly
145                 150                 155                 160
Gly Ser Ala Ser Asn Thr Thr Ser Ile Val Ile Ala Arg Asn Asn Leu
                165                 170                 175
Tyr Pro Asp Thr Lys Lys Asn Gly Asn Gly Asp Tyr Lys Phe Val Val
            180                 185                 190
Phe Thr Ser Asp His Gly His Tyr Ser Ile Glu Lys Ala Ala Gln Met
        195                 200                 205
Leu Gly Leu Gly Ser Ser Ser Val Trp Val Val Pro Val Asp Lys Gln
    210                 215                 220
Gly Arg Met Ile Pro Glu Glu Leu Glu Lys Leu Val Arg Lys Ala Leu
225                 230                 235                 240
Gln Glu Asn Arg Thr Pro Phe Tyr Val Asn Ala Thr Ala Gly Thr Thr
                245                 250                 255
Val Met Gly Ser Phe Asp Pro Phe Asn Glu Ile Ala Ala Ile Cys Gln
            260                 265                 270
Lys Tyr Asn Leu Trp
        275
```

<210> 31577
<211> 139
<212> PRT
<213> A.fumigatus

<400> 31577
Gly Arg Glu Thr Ser Val Leu Ala Arg Leu Ser Ser Arg Ile Val Pro
1 5 10 15
Arg Ala Ser Gly Leu Ser Leu Ala Ile Arg Phe Tyr Gln Pro Leu Leu
20 25 30
Tyr Tyr Gln Ala Met Ala Asp Leu Phe Gly Glu Asn Phe Leu Ser Ile
35 40 45
Thr Ser Ser Ser Ser Gln Leu Arg Pro Thr Thr Thr Asp His Asp Ala
50 55 60
Pro Pro Ala Ser Thr Gly His Gly Asp Ala Asp Asn Leu His Leu Pro
65 70 75 80
Arg Thr Lys Arg Ile Ala Cys Val Val Cys Arg Arg Arg Lys Leu Arg
85 90 95
Cys Asp Gly Lys Arg Pro Ser Cys Gly Thr Cys Ser Arg Leu Gly His
100 105 110
Glu Cys Ala Tyr Asp Glu Val Arg Lys Lys Ser Gly Pro Lys Arg Gly
115 120 125
Tyr Val Lys Gln Leu Glu Ala Arg Leu Gly Thr
130 135

<210> 31578
<211> 92
<212> PRT
<213> A.fumigatus

<400> 31578
Tyr Tyr His Gly Gly Arg Asp Gly Met His Val Ser Met Leu Cys Lys
1 5 10 15
Asn Phe Arg Leu Ile Pro Ser Gln Ala Leu Asn Ile Leu Phe Ala Leu
20 25 30
Cys Gly Ile Thr Gly Ser Leu Tyr Gly Met Gly Arg Lys Leu Glu His
35 40 45
Val Glu Gln Phe Ser Thr Ala Leu Phe Val Cys Leu Leu Lys Pro Pro
50 55 60
Ser Leu Ser Pro Val Arg His Ser Val Tyr Ile Ala Tyr Ala Arg Val
65 70 75 80
Phe His Ser Gly Gly Gly Ser Val Arg Gln Ala Thr
85 90

<210> 31579
<211> 124
<212> PRT
<213> A.fumigatus

<400> 31579
Pro Met Leu Arg Ala Lys Leu Val Asp Asp Pro Gln Ile Lys Tyr Ala
1 5 10 15
Ser Leu His Asn Pro Leu Pro Thr Gln Leu His Ala Tyr Val Trp Pro
20 25 30
Phe Leu Ile Ile Trp Pro Ala Phe Phe Ala Val Tyr Leu Ser Pro Glu
35 40 45

```
Arg Tyr Asp Thr Tyr Ile Gln Gly Gln Glu Trp Thr Phe Val Trp Ser
    50                  55                  60
Gly Ser Ile Ile Thr Ala Gln Ser Leu Leu Trp Leu Met Thr Lys Trp
65                  70                  75                  80
Asn Ile Asn Ile Gln Thr Leu Phe Thr Ala Asn Lys Gly Arg Ser Leu
                85                  90                  95
Asn Ser Ala Gln Leu Asn Lys Ile Ile Pro Gly Cys Asn Ala Cys Ser
            100                 105                 110
Ala Glu Asn Leu Pro Leu His Cys Glu Lys Ile Gly
        115                 120
```

<210> 31580
<211> 67
<212> PRT
<213> A.fumigatus

<400> 31580

```
Thr Val Phe Glu Ile Lys Tyr Lys Gly Met Gly Ser Ala Tyr Met Gln
1               5                   10                  15
Ile Tyr Leu Met His Leu Ala Gln His Glu Pro Cys Ala Thr Leu Tyr
            20                  25                  30
Leu Ala Pro Asp Ser Leu Leu Arg Thr Asp Gly Trp Arg Ser Asp Asn
        35                  40                  45
Phe Pro Tyr Gln Thr Met Leu Thr Ile Thr Lys Ala Ser Ala Ser Leu
    50                  55                  60
Pro Thr Ser
65
```

<210> 31581
<211> 327
<212> PRT
<213> A.fumigatus

<400> 31581

```
Asn Cys Ala Asn Ser Cys Ser Asn Gly Asn Leu Arg Ala Leu Pro Ser
1               5                   10                  15
Gly Leu Leu Arg Pro Leu Gln Tyr Leu Thr Lys Leu Pro Ser Val Arg
            20                  25                  30
Glu Pro Pro Ile Ser Glu Glu Gly Tyr Ser Ser Leu Lys Pro Phe Leu
        35                  40                  45
Arg Leu Phe Leu Ala Gly Asn Ala Leu Thr Ala Val Ser Gly Glu Ile
    50                  55                  60
Phe Glu Leu Asp Ser Leu Arg Val Leu Ser Leu Arg Asn Asn Lys Leu
65                  70                  75                  80
Thr Glu Ile Pro Pro Ala Ile Arg Lys Leu Thr Met Leu Gln Glu Ile
                85                  90                  95
Asn Leu Ala Val Asn Arg Leu Arg Cys Leu Pro Trp Glu Leu Leu Trp
            100                 105                 110
Leu Ile Arg Lys Gly Asp Leu Lys His Leu Met Val Arg Pro Asn Pro
        115                 120                 125
Leu Leu Gln Thr Asn Asp Val Glu Val Thr Arg Trp Tyr Thr Pro Asp
    130                 135                 140
Gly Ser Asp Ala Ala Ser Pro Glu Glu Ala Leu Lys Ala Cys His Tyr
145                 150                 155                 160
Glu Gly Pro Pro Pro Glu Glu Ala Trp Ala Pro Ile Gln Val Ala Ile
                165                 170                 175
```

```
Ser Pro Ile Arg Arg Phe Asn Met Glu Gly Ile Pro Ile Thr Asp Gly
            180                 185                 190
Gln Ser Gly Ala Leu Pro Leu Arg Ser Ser Asp Asp Thr Pro Ser His
        195                 200                 205
Val Pro Ser Leu Arg Glu Val Ser Leu Leu Ala Phe Ser Lys Ser Ala
    210                 215                 220
Tyr Cys Asp Gln Ile Ser Glu Ser Glu Met Ile Gly Tyr Pro Glu Leu
225                 230                 235                 240
Met Val Arg Leu Leu Arg Gln Ala Lys Gly Val Arg Asn Ala Gly Gly
                245                 250                 255
Arg Ser Cys Ser Ile Cys His Arg Ser Phe Val Ile Pro Arg Thr Glu
            260                 265                 270
Trp Ile Glu Trp Trp Asp Cys Ser Thr Tyr Glu Asn Gly Leu Lys Arg
        275                 280                 285
Pro Arg Cys Pro Gly Glu Gln Leu Arg Pro Leu Pro Phe Arg Arg Phe
    290                 295                 300
Gly Cys Ser Trp Ala Cys Val Pro Glu Ala Glu Glu Ser Met Leu Gln
305                 310                 315                 320
Ala Glu Thr Gly Gln Gln Gly
                325
```

<210> 31582
<211> 66
<212> PRT
<213> A.fumigatus

<400> 31582

```
Arg Gly Arg Ser Lys Pro Asp Gly Ser Ala Leu Arg Leu Pro Leu Leu
1               5                   10                  15
Gln Glu Leu Ala Gln Phe His Ile Thr Gln Thr Glu Ile Phe Ser Pro
            20                  25                  30
Gln Val Asp Ala Ile Leu Pro Phe Phe Lys Thr Val Ile Asp Asn Arg
        35                  40                  45
Pro Ser Glu Leu Met Phe Pro Arg Leu Leu His Leu Pro Gly Thr Pro
    50                  55                  60
Arg Leu
65
```

<210> 31583
<211> 174
<212> PRT
<213> A.fumigatus

<400> 31583

```
Pro Phe Leu Thr Leu Val Phe Ile Thr Ser Ile Cys Phe Thr Ser Ala
1               5                   10                  15
Lys Val Gly Ala Asp Phe Asp His Trp Lys Ile Gly Leu Glu His Gly
            20                  25                  30
Arg Ile Leu Ser Gln Gln Ile Gln Asp Gln Ile Lys Val Tyr Glu Ala
        35                  40                  45
Met Phe Leu Glu Ala Ser Lys Met Ser Trp Asp Ala Val Arg Asn Leu
    50                  55                  60
Ala Glu Glu Phe Arg Glu Ser Leu Glu Lys Lys Leu Pro Asp Val Tyr
65                  70                  75                  80
Ala Glu Met Gln Gly Ile Ala Glu Gly Ala Gly Leu Asp Leu Leu Asp
                85                  90                  95
```

```
Ile Val Ala Leu Asn Cys Arg Ser Glu Ile Ala Met Gly Asn Phe Ser
            100                 105                 110
Asp Gly Cys Thr Ser Leu Ser Trp Lys Lys His Asp Asn Gly Arg Val
        115                 120                 125
Leu Ala Gln Asn Trp Asp Trp Ala Pro Ala Ala Gly Lys Asn Ile Ala
    130                 135                 140
Ile Met Ser Val Glu Gln Pro Gly Lys Pro Lys Val Phe Met Val Thr
145                 150                 155                 160
Glu Val Ser Leu Leu Ser Gln Phe Val Leu Asp Asn Thr Asp
                165                 170
```

<210> 31584
<211> 237
<212> PRT
<213> A.fumigatus

<400> 31584

```
Ser Thr Leu Ala Val Cys Ile Gly Gln Tyr Gly Leu Thr Leu Ile Ile
1               5                   10                  15
Thr Thr Gln Ala Gly Ile Val Gly Lys Ile Gly Phe Asn Ser Ala Gly
            20                  25                  30
Val Gly Val Cys Leu Asn Ala Ile Arg Ala Lys Pro Cys Ile Ser Ser
        35                  40                  45
Lys Ile Pro Ile His Val Ala Leu Arg Leu Cys Leu Glu Ser Pro Ser
    50                  55                  60
Ala Gln Met Ala Val Glu Arg Val Ser Glu Leu Gly Gly Ile Ala Cys
65                  70                  75                  80
Ser Val His Ile Leu Leu Ala Asp Ser Thr Thr Ala Leu Gly Leu Glu
                85                  90                  95
Leu Ser Pro Leu Gly Asp Val Tyr Leu Lys Glu Asp Val Leu Gly Thr
            100                 105                 110
Val Thr His Thr Asn His Phe Ile Glu Asn Arg Asn Val Ile Glu Pro
        115                 120                 125
Pro Trp Leu Ser Gly Ser Pro Ile Arg Leu Asn Arg Val Arg Gln Leu
    130                 135                 140
Leu Arg Glu Leu Ile Ser Gly Gly Ile Ala Gly Ser Gln Ile Thr Pro
145                 150                 155                 160
Gly Leu Leu Arg Asp Lys Ile Phe Ser Asp Thr Ser Asn Ala Pro Gln
                165                 170                 175
Ala Ile Cys Cys Ser Glu Asp Pro Ala Arg Gly Pro Ala Val Arg Ser
            180                 185                 190
Thr Thr Ile Phe Asn Ile Ile Met Asn Leu Glu Gln Asp Asn Val Ser
        195                 200                 205
Ala Glu Leu Val Val Gly Arg Pro Gly Ser Gly Glu Glu Thr Ala Val
    210                 215                 220
Ile Arg Met Pro Trp Ala Tyr Arg Pro Arg Ile Val Val
225                 230                 235
```

<210> 31585
<211> 73
<212> PRT
<213> A.fumigatus

<400> 31585

```
Phe Leu Ser Pro Ser Gly Arg Ile Asp Pro Ser Thr Ser Val Ser Tyr
1               5                   10                  15
```

```
Thr Leu Asn Gln Asn Ile Thr Phe Pro Ser Thr Met Ala Ser Lys Glu
            20                  25                  30
Gly Ala Ala Gly Pro Ala Phe Gly Pro Val Leu Ala Ala Val Ala Thr
        35                  40                  45
Met Gln Gly Asn Val Ser Arg Ser Glu Lys Thr Gln Ala His Glu Phe
    50                  55                  60
Leu Glu Lys Phe Gln Lys Ser Val Ser
65                  70
```

<210> 31586
<211> 140
<212> PRT
<213> A.fumigatus

<400> 31586

```
Gln Arg His Cys Arg Ile Ala Pro Thr Gln Phe Gln Cys Gln Leu Arg
1               5                   10                  15
Ser Phe Asn Asn Phe Pro Arg His Val Ser Ile Met Ser Gly Arg Ala
            20                  25                  30
Gly Gly Gly Gly Ala Arg Lys Thr Leu Leu Ala Pro Ile His Phe Ile
        35                  40                  45
Phe Lys Leu Leu Gln Gln Arg Thr Thr Val Ser Ile Trp Leu Tyr Glu
    50                  55                  60
Gln Leu Ala Phe Arg Ile Glu Gly Lys Ile Arg Val Pro Phe Ile Pro
65                  70                  75                  80
Phe Leu Ala Thr Arg Tyr Gln Ala Asn Asn Met Arg Gln Gly Phe Asp
                85                  90                  95
Glu Phe Met Asn Leu Val Ile Asp Asp Ala Val Glu Val Lys Met Ala
            100                 105                 110
Thr Lys Thr Asp Glu Glu Lys Arg Arg Pro Leu Gly Met Ile Tyr Tyr
        115                 120                 125
His Cys Ile Phe Asp Ile Ala Ser Glu Cys Tyr Tyr
    130                 135                 140
```

<210> 31587
<211> 134
<212> PRT
<213> A.fumigatus

<400> 31587

```
Leu Asn Pro Thr Ala Thr Ile Ala Asp Ser Val Gly Pro Phe Glu Leu
1               5                   10                  15
Ala Lys Asn Val Val Gln Thr Ser Val Leu Val Ala His Arg Ser Gln
            20                  25                  30
Ala Ser Pro Asp Ala Val Arg Asp Pro Ser Leu Arg Thr Arg Pro Arg
        35                  40                  45
Leu Gly Thr Ile Glu Ala Ile Arg Gln Ile Val Arg Arg Tyr Gly Phe
    50                  55                  60
Arg Gly Leu Tyr Thr Gly Phe His Leu His Ala Met Arg Asp Thr Ile
65                  70                  75                  80
Gly Ser Gly Leu Tyr Phe Ser Val Tyr Glu Thr Val Lys Gln Leu Ala
                85                  90                  95
Ala Lys Glu Leu Gly Pro Asp Lys Ser Pro Phe Gly Gly Pro Met Ile
            100                 105                 110
Ala Gly Ala Ile Cys Ser Thr Val Pro Trp Phe Cys Val Arg His Phe
        115                 120                 125
```

Phe Ser Asn Glu Thr Val
130

<210> 31588
<211> 91
<212> PRT
<213> A.fumigatus

<400> 31588
Val Ala Asn Leu Cys Gln Thr Tyr Pro Leu Asp Thr Arg Lys Thr Arg
1 5 10 15
Ala Gln Ser Val Leu Leu Gly Lys Ser Lys Glu Val Gly Glu Ala Ser
20 25 30
Ala Ala Val Ser Lys Ser Ser Met Tyr Lys Gly Leu Ser Val Ile Leu
35 40 45
Ile Arg Thr Gly Val Asn Asn Met Ile Leu Leu Ser Met Phe Glu Tyr
50 55 60
Ile Lys Met Arg Ile Asn Gln Leu Glu Gly Leu Ala Gly Ile Ala Trp
65 70 75 80
Leu Ile Phe Leu Ala Asn Asn Gly Ala Gly Leu
85 90

<210> 31589
<211> 96
<212> PRT
<213> A.fumigatus

<400> 31589
Val Asp Ile Ala Leu Glu Phe Tyr Ala Ile Asp Gly Ser Asn Ile Gln
1 5 10 15
Asn Thr Gly Ala Leu Pro Pro Leu Ala Ser Val Thr Ala Val Arg Val
20 25 30
Val Asn Phe Ser Thr Tyr Asn Val Ala Lys His Arg Ile Ser Glu Phe
35 40 45
Val Glu Arg Ile Thr Gly Glu Ser Pro Leu Ala Thr Tyr Asn Thr Pro
50 55 60
Gly Ser Ser Pro Thr Val Ser Thr Leu Phe Thr Phe Thr Thr Ala Gly
65 70 75 80
Phe Ile Ala Gly Leu Ile Thr Ser Pro Leu Ala Cys Lys Phe Arg Asn
85 90 95

<210> 31590
<211> 376
<212> PRT
<213> A.fumigatus

<400> 31590
Gly Thr Ser Leu Leu Tyr Tyr Leu Phe Lys Gly Gln Ala Ser Leu Gln
1 5 10 15
Ala Asn Leu Arg Gln Leu Lys Met Thr Ser Ser Asn Met Ser Ile Arg
20 25 30
Ser Leu Ala Pro Pro Thr Ala Val Thr Ser Ser Gln Val Gln Val Phe
35 40 45
Pro Thr Ala Trp Pro Lys Pro Ser Pro Thr Ser Thr Ala Arg Thr Pro
50 55 60
Thr Ala Leu Arg Gln Met Ala Ala Val Ser Leu Val Ser Arg Ala Cys

```
65                  70                  75                  80
Thr Thr Pro Ala Arg Gly Val Ile Pro Arg Trp Ala Ile Ser Pro Ser
                85                  90                  95
Ser Arg Ser Thr Val Arg Thr Met Cys Trp Ile Thr Ala Val Phe Arg
            100                 105                 110
Lys Leu Arg Gly Ala Cys Thr Met Ser Thr Ser Arg Leu Leu Arg Gly
        115                 120                 125
Pro Gly Tyr Phe Ala Leu Ala Leu Glu Asn Gly Ile Gln Ala Lys Met
    130                 135                 140
Thr Val Ser Glu His Ala Ala Leu Tyr Arg Phe Thr Phe Pro Pro Ser
145                 150                 155                 160
Thr Ala Gln Asp Gly Ser Glu Leu Ser Pro Leu Ile Leu Val Asp Leu
                165                 170                 175
Thr Asn Ala Trp Asp Ser Arg Gln Asn Ala Ser Ile Met Val Asp Ala
            180                 185                 190
Glu Asn Gly Arg Ile Thr Ala Asn Gly Thr Phe Leu Pro Ser Phe Gly
        195                 200                 205
Ala Gly Ser Tyr Val Ser Tyr Phe Cys Ala Asp Phe Gly Ser Gly Ala
    210                 215                 220
Val Lys Asp Ser Gly Ile Trp Val Asn Asp Arg Ala Gly Thr Glu Pro
225                 230                 235                 240
Gln Glu Leu Phe Val Thr Arg Gly Phe Asn Leu Phe Tyr Leu Gln Ala
                245                 250                 255
Gly Gly Phe Met Arg Phe Lys Arg Pro Glu Asp Gly Thr Val Thr Val
            260                 265                 270
Arg Val Gly Val Ser Phe Ile Ser Ser Glu Lys Ala Cys Lys Asn Ala
        275                 280                 285
Glu Ile Glu Ile Pro His Pro Glu Asp Asp Phe Val Thr Leu Arg Gln
    290                 295                 300
Arg Ala Glu Ser Ala Trp Arg Glu Lys Leu Ser Pro Val Ser Val Gln
305                 310                 315                 320
Thr Gly Gly Val Thr Asp Asp Phe Leu Glu Ser Phe Trp Ser Gly Val
                325                 330                 335
Tyr Arg Thr Met Leu Ser Pro Gln Asp Leu Thr Gly Glu Asn Pro Leu
            340                 345                 350
Trp Arg Ser Asp Glu Pro Tyr Tyr Asp Ser Phe Tyr Trp Tyr Val Ser
        355                 360                 365
Arg Asp Asp Met Val Phe His Arg
    370                 375
```

<210> 31591
<211> 133
<212> PRT
<213> A.fumigatus

```
<400> 31591
Leu Met Ile Gly Ser Ile Trp Asp Ser Phe Arg Ala Gln His Pro Phe
1               5                   10                  15
Leu Thr Ile Ile Asp Pro Val Ser Gln Ser Arg Met Val Arg Ser Leu
            20                  25                  30
Leu Asp Thr Tyr Arg His Glu Gly Trp Leu Pro Asp Cys Arg Met Ser
        35                  40                  45
Leu Cys Lys Gly Trp Thr Gln Gly Gly Ser Asn Ala Asp Val Val Leu
    50                  55                  60
Ala Asp Ala Phe Val Lys Asn Leu Thr Gly Ile Asp Trp Asp Leu Ala
65                  70                  75                  80
```

```
Tyr Glu Ala Met Val Asn Asp Ala Glu Asn Glu Pro Leu Glu Trp Ser
                85                  90                  95
Tyr Glu Gly Arg Gly Gly Leu Gln Ser Trp Lys Arg Leu Asn Tyr Ile
            100                 105                 110
Pro Tyr Leu Asp Phe Asp Tyr Leu Gly Phe Gly Thr Asn Ser Arg Ser
        115                 120                 125
Ile Ser Arg Thr Leu
    130
```

<210> 31592
<211> 244
<212> PRT
<213> A.fumigatus

<400> 31592

```
Tyr Ser Tyr Asn Asp Phe Ser Leu Ala Thr Val Gly Arg Gly Leu Arg
1               5                  10                  15
Lys Arg Asp Tyr Thr Lys Tyr Leu Ser Arg Ala Asn Asn Trp Gln Asn
            20                  25                  30
Leu Tyr Lys Pro Asp Gln Gln Ser Leu Ile Asn Gly Thr Asp Thr Gly
        35                  40                  45
Phe Val Gly Phe Phe Gln Pro Lys Tyr Leu Asn Gly Thr Trp Gly Tyr
    50                  55                  60
Gln Asp Pro Ile Ala Cys Ser Ala Leu Ala Ser Trp Cys Ser Leu Thr
65                  70                  75                  80
Ser Asn Pro Ser Glu Thr Phe Glu Ser Ser Val Trp Glu Tyr Gln Leu
                85                  90                  95
Tyr Val Thr Pro Ser Gln Thr Glu Ala Thr Val Asn Lys Glu Pro Gln
            100                 105                 110
Leu Arg Ser Ser Arg His Gly His Pro Asn Pro Pro Pro Arg Arg Ala
        115                 120                 125
Gly His Leu His Leu Pro Pro Arg Leu Leu Pro His Leu Arg Pro Ser
    130                 135                 140
Arg His Arg Gln Arg Ala Cys Leu Pro Asn Arg Leu Pro Ile Pro Leu
145                 150                 155                 160
Arg Arg Pro Ala Gly Pro Leu Arg Arg Ala Cys Ser His Leu His Pro
                165                 170                 175
Leu Arg Leu Gln Arg Leu His Ser Arg Pro Pro Arg Gln Arg Arg Leu
            180                 185                 190
Gly Arg His Gly Arg Leu His Arg Leu His Asp Asp Gly Pro Leu Pro
        195                 200                 205
Gln Pro Arg Ala Glu Arg Val Pro Tyr His Pro Pro Val Leu Arg Ser
    210                 215                 220
Arg Glu Tyr His Ser Pro Arg Asp Lys Gln Asp Arg Asn Asp Pro Glu
225                 230                 235                 240
Cys Gln Phe Arg
```

<210> 31593
<211> 229
<212> PRT
<213> A.fumigatus

<400> 31593

```
His Pro Ile Pro Pro Arg Pro Leu Ser Pro Ala Ser Gly Asn Thr Asn
1               5                  10                  15
```

```
Cys Thr Leu Pro Pro Pro Arg Pro Lys Pro Pro Leu Thr Arg Asn Arg
            20                  25                  30
Ser Tyr Val Pro His Asp Met Ala Thr Leu Ile His Leu Leu Gly Gly
        35                  40                  45
Pro Asp Thr Phe Ile Ser Arg Leu Asp Phe Phe His Thr Ser Gly Leu
    50                  55                  60
Ala Asp Ile Gly Asn Glu Pro Val Phe Leu Thr Val Phe Gln Tyr His
65                  70                  75                  80
Tyr Ala Gly Arg Pro Ala Leu Ser Ala Ala Arg Ala His Thr Tyr Ile
                85                  90                  95
Pro Ser Ala Phe Asn Ala Ser Thr Ala Gly Leu Pro Gly Asn Asp Asp
            100                 105                 110
Ser Gly Ala Met Gly Ala Phe Thr Val Phe Thr Met Met Gly Leu Phe
        115                 120                 125
Pro Asn Pro Gly Gln Asn Val Tyr Leu Ile Ile Pro Pro Phe Phe Glu
    130                 135                 140
Ala Val Ser Ile Thr His Pro Val Thr Asn Lys Thr Ala Thr Ile Arg
145                 150                 155                 160
Asn Val Asn Phe Asp Ser Ser Tyr Arg Arg Ile Tyr Ile Gln Ser Ala
                165                 170                 175
Arg Leu Asn Gly Glu Pro Tyr Thr Lys Asn Trp Ile Gly His Glu Phe
            180                 185                 190
Phe Thr Glu Gly Trp Thr Leu Glu Leu Thr Leu Gly Glu Glu Glu Ser
        195                 200                 205
Asp Trp Gly Thr Gly Val Gly Asp Leu Pro Pro Ser Leu Gly Glu Ser
    210                 215                 220
Met His Leu Trp Thr
225
```

<210> 31594
<211> 413
<212> PRT
<213> A.fumigatus

<400> 31594

```
Leu Ser Ala Arg Arg Ala Tyr Asp Val Val Val Ile Gly Gly Gly His
1               5                   10                  15
Ala Gly Ser Glu Ala Ser Ala Ala Ala Ala Arg Ser Gly Ala Arg Thr
            20                  25                  30
Ala Leu Val Thr Pro Ser Leu Ser Asn Ile Gly Val Cys Ser Cys Asn
        35                  40                  45
Pro Ser Phe Gly Gly Ile Gly Lys Gly Thr Met Ile Arg Glu Ile Asp
    50                  55                  60
Ala Met Asp Gly Val Ala Gly Arg Ile Ile Asp Lys Ala Gly Ile Met
65                  70                  75                  80
Phe Arg Ile Leu Asn Arg Ser Lys Gly Pro Ala Val Trp Gly Pro Arg
                85                  90                  95
Ala Gln Ile Asp Arg Asp Leu Tyr Lys Arg Tyr Met Gln Glu Glu Leu
            100                 105                 110
Leu Ala Thr Glu Gly Leu Ser Ile Val Glu Gly Lys Val Ala Asp Ile
        115                 120                 125
Val Val Ser Lys Glu Gly Val Glu Asn Ile Pro Gly Ser Gln Gly Lys
    130                 135                 140
Ile Val Gly Val Arg Leu Glu Ser Gly Glu Val Ile Pro Thr Gly Arg
145                 150                 155                 160
Val Val Ile Thr Thr Gly Thr Phe Leu Gly Gly Glu Ile His Ile Gly
```

```
                165                 170                 175
Leu Glu Ala Tyr Pro Ser Gly Arg Met Gly Glu Ala Ala Thr Phe Gly
            180                 185                 190
Leu Ser Lys Ser Leu Arg Glu Ala Gly Phe Gln Leu Gly Arg Leu Lys
        195                 200                 205
Thr Gly Thr Pro Pro Arg Leu Asp Met Lys Thr Ile Asp Phe Ala Pro
    210                 215                 220
Leu Glu Val Gln Arg Gly Asp Ser Pro Pro Gln Pro Phe Ser Tyr Leu
225                 230                 235                 240
Asn Thr Thr Val Asp Val Gly Asp Glu Gly Gln Leu Thr Cys Trp Met
                245                 250                 255
Thr His Thr Asn Glu Ala Ser His Glu Ile Val Arg Ala Asn Leu Asp
            260                 265                 270
Lys Ser Ile His Ile Arg Glu Thr Val Arg Gly Pro Arg Tyr Cys Pro
        275                 280                 285
Ser Leu Glu Ser Lys Ile Ile Arg Phe Thr Asp Lys Lys Gln His Gln
    290                 295                 300
Ile Trp Leu Glu Pro Glu Gly Cys Ala Pro Asn Glu Val Ile Tyr Pro
305                 310                 315                 320
Asn Gly Ile Ser Met Thr Ile Pro Ala Asp Ala Gln Tyr Ala Leu Leu
                325                 330                 335
Arg Thr Val Arg Gly Leu Glu Asn Val Arg Met Leu Gln Ser Gly Tyr
            340                 345                 350
Gly Val Glu Tyr Asp Tyr Ile Asp Pro Arg Asn Leu Arg Pro Thr Leu
        355                 360                 365
Glu Thr Lys Leu Ile Ser Gly Leu Leu Leu Ala Gly His Ile Tyr Gly
    370                 375                 380
Thr Pro Gly Tyr Glu Glu Ser Ala Gly Thr Glu Ile Ile Ala Gly Thr
385                 390                 395                 400
Lys Pro Pro Ser Val Leu Pro Pro Lys Lys Gly Gly Ala
                405                 410
```

<210> 31595
<211> 68
<212> PRT
<213> A.fumigatus

<400> 31595

```
Phe Ala Arg Ser Leu Gly Ala Gly Leu Phe Phe His Ala Pro Gln Ala
1               5                   10                  15
Phe Thr Ser Val Phe Tyr Leu Leu Tyr Leu Arg Ala Asp Arg Ile Lys
            20                  25                  30
Glu Tyr Ser Val Lys Phe Ile Asp Leu Leu Pro Pro Ile Arg Thr Gln
        35                  40                  45
Asn Ile Leu Cys Trp Arg Ser Cys Arg Glu Glu Ala Ser His His Glu
    50                  55                  60
Gly Leu Leu Val
65
```

<210> 31596
<211> 97
<212> PRT
<213> A.fumigatus

<400> 31596

```
Ala Arg Gly Pro His Thr Ala Gly Pro Leu Asp Arg Leu Arg Met Arg
```

```
1               5                   10                  15
Asn Met Ile Pro Ala Leu Ser Met Ile Arg Pro Ala Thr Pro Ser Met
            20                  25                  30
Ala Ser Ile Ser Arg Ile Ile Val Pro Phe Pro Ile Pro Pro Lys Leu
        35                  40                  45
Gly Leu His Glu Gln Thr Pro Met Phe Glu Ser Glu Gly Val Thr Asn
    50                  55                  60
Ala Val Arg Ala Pro Asp Arg Ala Ala Ala Ala Glu Ala Ser Glu Pro
65                  70                  75                  80
Ala Trp Pro Pro Pro Ile Thr Thr Thr Ser Tyr Ala Leu Arg Ala Glu
                85                  90                  95
Ser
```

<210> 31597
<211> 135
<212> PRT
<213> A.fumigatus

<400> 31597

```
Gly Asp Gln Arg Glu Pro His Asp Ser Gly Arg Pro Val Thr Val Asp
1               5                   10                  15
Tyr Leu Ala Ser Ile Gly Val Gln Tyr Tyr His Phe Pro Ser Leu Glu
            20                  25                  30
Ser Val Asn Glu Leu Ala Lys Glu Arg Gly Tyr Lys Asn Arg Asp Glu
        35                  40                  45
Ile Val Val Ser Pro Gln Ala Met Gly Asp Val Tyr Glu Glu Lys Val
    50                  55                  60
Lys Met Phe Phe Asn Glu His Leu His Glu Asp Glu Glu Ile Arg Tyr
65                  70                  75                  80
Ile Arg Asp Gly Glu Gly Tyr Phe Asp Val Arg Gly Gln Glu Asp Glu
                85                  90                  95
Trp Val Arg Ile Lys Leu Ala Lys Asp Asp Leu Ile Ile Leu Pro Ala
            100                 105                 110
Gly Ile Tyr His Arg Phe Thr Thr Asp Asp Lys Asn Val Gly Phe His
        115                 120                 125
Glu Leu Ile Gln Ser Thr Leu
    130                 135
```

<210> 31598
<211> 77
<212> PRT
<213> A.fumigatus

<400> 31598

```
Glu Gly Arg Cys Glu Ile Thr Asp His Leu Phe Ser Leu Val Arg Lys
1               5                   10                  15
Pro Asn Ile Cys Gly Asp Ala Val Arg Met Gly Gln Asp Gly Thr Thr
            20                  25                  30
Leu Ser Glu Gln Lys Tyr His His His Glu Asp Leu Val Pro Leu Pro
        35                  40                  45
Thr Ser Ser Thr Leu Phe Met Gln Pro Thr Tyr Cys Thr Trp Asp Asp
    50                  55                  60
Asn Leu Tyr Gly Ile His Ser Val Asp Phe Val Ser Leu
65                  70                  75
```

<210> 31599
<211> 71
<212> PRT
<213> A.fumigatus

<400> 31599
Pro Arg Thr Pro Leu Gln Cys His Cys Gln Glu Met Lys Arg Leu Leu
1 5 10 15
Pro Val Tyr Leu Pro Asn Arg Leu Pro Ile Ala Pro Tyr Gln Arg Thr
20 25 30
Ser Lys Thr Cys Leu Ile Ser Arg His Arg Leu Phe Leu Val Gly Ser
35 40 45
Lys Arg Pro Asn Asn Ile His Tyr Ser Gly Ser Val Gly Glu Asn Ser
50 55 60
Arg Asp Ser Lys Ala Lys Asp
65 70

<210> 31600
<211> 189
<212> PRT
<213> A.fumigatus

<400> 31600
Leu Leu Tyr Val Gln Ser Lys Pro Pro Ser Gln Ser Glu Ser Val Glu
1 5 10 15
Ser Pro Glu Lys Gly Arg Asn Arg Trp Ile Gln Ala Asp Cys Cys Ala
20 25 30
Gln Glu Met Ile Ala Asp Leu Lys Ala Asp Ser Ala Arg Trp Glu Ala
35 40 45
Asp Val Met Arg Arg Ala Asp Gln Gly Tyr Pro Arg Gly Ser Tyr Ile
50 55 60
His Asp Tyr Asn Val Arg Gln Ala Pro Asn Val Val Pro Ala Pro Tyr
65 70 75 80
Ala Ala Ser Ser Ile His Glu Val Arg His Gln Gly Ser Pro Ser Pro
85 90 95
Pro Gln Pro Pro Ser Gln Pro Tyr Val Asp Pro Tyr Thr Gln Ala Pro
100 105 110
Tyr Gly Ala Thr Gln Ser Pro Pro Tyr Thr Ala Pro Ser Ser Tyr Pro
115 120 125
Ser Ser His Ser Pro Phe Ala Ala Gly Gln Asn Pro Tyr Pro Pro Gln
130 135 140
Val Pro Tyr Ser Ala Pro Gly Gln Pro Pro Val Ser Ala Asp Met His
145 150 155 160
Pro Ser Tyr Thr Tyr Thr Asn Asn Thr Gly Tyr Pro Tyr Glu Asn Gly
165 170 175
Arg Ser Asn Ala Pro Arg Tyr Thr Gly Pro Gly Tyr Asp
180 185

<210> 31601
<211> 135
<212> PRT
<213> A.fumigatus

<400> 31601
Tyr Ser Ser Leu Gly Leu Arg Leu Thr Ile Ser Leu His Thr Gln Leu
1 5 10 15

```
Val Ala Met Met Met Pro Phe Leu Gln Val Met Thr Phe Ile Leu Pro
            20                  25                  30
Gly Ala Ile Ala Thr Thr Ala Ala Thr Ser Ile Pro Ala Thr Leu Asn
        35                  40                  45
Ile Thr Val Val Gly Ala Arg Asn Asn Gln Ser Ile Leu Glu Cys Trp
    50                  55                  60
Ser Leu Glu Pro Gly Phe Glu Ser Ser Thr Gln Pro Gly Ile Ala Gly
65                  70                  75                  80
Ser Ala Ser Leu Ser Leu Gly Pro Val Gly Gly Asn Ala Thr Tyr Thr
                85                  90                  95
Ile Val Pro Ala Gln Phe Asp Gly Gly Ile His Asn Ala Pro Val Arg
            100                 105                 110
Gln Tyr Val Ser Leu Pro Val Tyr Pro Thr His Val Val His Lys Asn
        115                 120                 125
Asn Val Gly Ala Glu Arg Cys
    130                 135
```

<210> 31602
<211> 161
<212> PRT
<213> A.fumigatus

```
<400> 31602
Met Val Ser Arg Thr Met Val Arg Ser Pro Val Trp Lys His Asp Ser
1               5                   10                  15
Ser Ile Pro Leu Ser Phe Val Leu Ser Asp Cys Val Arg Thr Val Asp
            20                  25                  30
Asn Val Thr Pro Glu Val Ile Cys Cys Thr Ala Ala Leu Gly Phe Pro
        35                  40                  45
Gly Thr Arg Asp Pro Ile Arg Thr Ser Ser Ser Ser Ser Ala Ser Thr
    50                  55                  60
Ser Ile Ser Ser Glu Ala Leu Ala Arg Lys Ser Ser Pro Lys Asp Gly
65                  70                  75                  80
Ser Pro Val Ser Ser Ser Ser Thr Ser Ser Ser Thr Pro Ala Ser Asp
                85                  90                  95
Arg Ile Ser Met Ser Leu Ser Ala Ser Phe Phe Cys Phe Arg Cys Arg
            100                 105                 110
Val Ser Phe Phe Ser Thr Gly Phe Phe Ala Ser Ser Ser Pro Ser Ser
        115                 120                 125
Glu Ser Ser Ser Leu Ser Ala Thr Val Val Ser Ala Leu Val Ser Cys
    130                 135                 140
Ile Ser Thr Ser Val Tyr Arg Gln Arg Leu Glu Ser Thr Arg Arg Gly
145                 150                 155                 160
His
```

<210> 31603
<211> 67
<212> PRT
<213> A.fumigatus

```
<400> 31603
Ser Ser Ala Tyr Glu Thr Arg Arg Val Val Asn Tyr Leu Ile Met Thr
1               5                   10                  15
Ser Ser Ala Asn Thr Thr Asp Leu His Asp Trp Asn Asp Lys Tyr Leu
            20                  25                  30
```

```
Thr Asp Pro Phe Pro Gly Ile Glu Thr Asn Gln Pro Ser Glu Ile Asn
        35                  40                  45
Leu Arg Arg Phe Ala Ser Thr Leu Ile Gln His Ser Met Arg Trp Phe
    50                  55                  60
Leu Ile Pro
65
```

<210> 31604
<211> 402
<212> PRT
<213> A.fumigatus

<400> 31604

```
Thr Asp Val Glu Met Gln Asp Thr Arg Ala Asp Thr Thr Val Ala Asp
1               5                  10                  15
Ser Glu Glu Asp Ser Glu Asp Gly Asp Asp Asp Ala Lys Lys Pro Val
            20                  25                  30
Glu Lys Lys Glu Thr Arg Gln Arg Lys Gln Lys Lys Asp Ala Asp Ser
        35                  40                  45
Asp Ile Glu Met Arg Ser Glu Ala Gly Val Glu Glu Asp Val Glu Glu
    50                  55                  60
Asp Glu Thr Gly Glu Pro Ser Phe Gly Glu Leu Leu Arg Ala Asn Ala
65                  70                  75                  80
Ser Glu Glu Ile Asp Val Glu Ala Glu Leu Glu Asp Asp Val Arg Ile
                85                  90                  95
Gly Ser Leu Val Pro Gly Lys Pro Ser Ala Ala Val Gln Gln Ile Thr
            100                 105                 110
Ser Gly Val Thr Leu Ser Thr Val Leu Thr Gln Ser Leu Lys Thr Asn
        115                 120                 125
Asp Asn Gly Met Leu Glu Ser Cys Phe His Thr Gly Asp Leu Thr Ile
    130                 135                 140
Val Arg Glu Thr Ile Gln Arg Leu Asp Ser Ser Leu Ala Ala Thr Leu
145                 150                 155                 160
Leu Gln Lys Leu Ala Glu Arg Leu Ser Ser Arg Pro Gly Arg Tyr Gly
                165                 170                 175
His Leu Leu Val Trp Val Gln Trp Thr Cys Val Ala His Gly Gly Ala
            180                 185                 190
Leu Ala Gly Lys Pro Glu Leu Leu Lys Arg Met Ser Thr Leu Phe Lys
        195                 200                 205
Val Met Asp Gln Arg Ser Ser Ser Leu Ser Ser Leu Leu Leu Leu Lys
    210                 215                 220
Gly Lys Leu Asp Met Leu His Ala Gln Leu Gly Leu Arg Gln Ser Leu
225                 230                 235                 240
Arg Ser Gly Ala Glu Gly Met Asp Ser Glu Asp Glu Asp Asn Val Ile
                245                 250                 255
Tyr Val Glu Gly Gln Glu Glu Leu Glu Asp Glu Asp Ser Asp Ala Asp
            260                 265                 270
Thr Ala Lys Asn Ala Val Thr Pro Arg Thr Lys Ser Ile Arg Asp Gln
        275                 280                 285
Thr Tyr Asp Glu Asp Glu Ser Met Ile Asp Gly Asp Gln Ser Gly Arg
    290                 295                 300
Asp Glu Ser Asp Asp Glu Glu Asp Asp Gly Ser Asp Glu Glu Glu Glu
305                 310                 315                 320
Asn Glu Glu Asp Val Phe Asp Val Glu Ala Glu Glu Ser Val Gly Ser
                325                 330                 335
Ser Asp Ala Glu Glu Ser Leu Asp Asp Glu Asp Asp Glu Glu Asp Asp
```

```
            340                 345                 350
Asp Ala Glu Ser Ala Gly Ser Met Ala Asp Phe Ile Ala Asp Thr Glu
        355                 360                 365
Asp Asp Glu Ser Asp Glu Asp Ala Leu Ser Ala Gln Pro Pro Pro Ser
    370                 375                 380
Lys Lys Ala Lys Phe Gly Gly Ser Gly Gly Lys Glu Lys Lys Ser Gly
385                 390                 395                 400
Arg Arg
```

<210> 31605
<211> 319
<212> PRT
<213> A.fumigatus

<400> 31605

```
Arg Lys Gly Gly Asn Thr Ile Leu Gly Glu Ala Gly Ala Ala Gly Glu
1               5                   10                  15
Val Ala Thr Ala Gly Glu Pro Ser Asp Glu Asp Asn Phe Asn Val Gly
            20                  25                  30
Ile Asp Phe Asp Ala Gly Gly Thr Thr Lys Asn Ser Ser Gln Leu Gly
        35                  40                  45
Thr Ser Val Lys Arg Gln Gly Gly His Ala Leu Ala Gly Asp Gln Asp
    50                  55                  60
Arg Asn Asn Ala Thr Glu Asn Arg Ala Glu Ser Cys Leu Glu Ser Ala
65                  70                  75                  80
Ser Asn Glu Gly Gly Lys Ile Ala Lys Glu Thr Cys Gly His Ala Asp
                85                  90                  95
Gly Asp Ile Gly Leu Glu Ser Glu Arg Lys Pro Glu Glu Asn Asn Ser
            100                 105                 110
Leu Glu Leu Ser Ala Glu Arg Ala Ala Gly Ala Gly Glu Pro Gly Asp
        115                 120                 125
Glu Ser Gly Thr Asn Phe Asn Ile Lys Gly Asn Gly Gly Thr Ala Leu
    130                 135                 140
Gly Ala Gly Leu Glu Gly Gly Leu Asn Val Gly Val Glu Thr Gly Gly
145                 150                 155                 160
Asn Ala Gly Phe Glu Glu Gly Gly Glu Arg Ser Leu Ser Ala Gly Gly
                165                 170                 175
Glu Asp Ala Ser Leu Leu Asn Gln Gly Asp Asp Gly Ser Thr Gly Arg
            180                 185                 190
Asp Arg Cys Gln Thr Ile Ala Gly Gln Arg Pro Asn Gly Asp Asp Val
        195                 200                 205
Gly Thr Asn Leu Thr Leu Gln Pro Ser Gln His Gly Asn Leu Gln Arg
    210                 215                 220
Ser Gly Gln Gly Ala Phe Gly Thr Gly Glu Pro Gly Phe Gln Gly Gly
225                 230                 235                 240
Leu His Ile Gly Gly Glu Val Asp Glu Asp Thr Ala Ala Ser Thr Lys
                245                 250                 255
Ala Glu Thr Ser Pro Asn Leu Gly Ile Glu Ser Ser Leu Asn Arg Arg
            260                 265                 270
Arg Glu Glu Cys Gly Gln Arg Ser Leu Gly Gly Ser Ala Gln Asp Asn
        275                 280                 285
Ile Cys Gly Asp Leu Gly Gly Gly Glu Asp Thr Leu Asn Gly Asn Lys
    290                 295                 300
Lys Val Ala Leu Gly Gly Asp Val Ser Ala Ser Gly Asp Gln His
305                 310                 315
```

<210> 31606
<211> 304
<212> PRT
<213> A.fumigatus

<400> 31606
Tyr Ser Gln Ala Glu Thr Met Thr Val Leu Val Thr Val Ile Thr Leu
1 5 10 15
Gly Pro Leu Glu Gly Thr Ala Val Gly Ala Ala Val Met Val Ala Ala
20 25 30
Pro Leu Val Thr Ala Pro Val Leu Val Ala Met Gly Thr Thr Val Ser
35 40 45
Glu Thr Lys Val Ser Gln Gly Val Ser Ala Ala Ser Gly Pro Ala Gly
50 55 60
Glu Ser Pro Glu Gly Ala Gly Thr Ala Ser Glu Thr Met Gly Gly Thr
65 70 75 80
Leu Pro Phe Asp Ala Pro Leu Gly Glu Ala Pro Glu Gly Thr Glu Pro
85 90 95
Leu Gly Thr Leu Gly Ala Gly Thr Leu Ala Ala Ser Glu Gly Glu Ala
100 105 110
Pro Leu Gly Thr Gly Thr Gly Thr Leu Gly Thr Glu Pro Glu Gly Thr
115 120 125
Glu Pro Leu Gly Met Pro Glu Gly Val Gly Thr Glu Thr Glu Gly Thr
130 135 140
Pro Val Ala Glu Pro Val Gly Val Glu Gly Arg Val Gly Ile Arg Ser
145 150 155 160
Leu Val Lys Leu Glu Pro Leu Gly Arg Trp Pro Gln Pro Val Ser His
165 170 175
Pro Met Arg Ile Ile Ser Met Leu Glu Ser Ile Ser Met Pro Ala Ala
180 185 190
Pro Pro Arg Ile Ala Ala Ser Trp Ala Arg Ala Ser Arg Asp Arg Glu
195 200 205
Ala Met Leu Ser Pro Glu Ile Arg Ile Glu Ile Thr Pro Arg Lys Thr
210 215 220
Glu Pro Arg Val Ala Ser Arg Val Pro Val Met Lys Glu Val Arg Ser
225 230 235 240
Pro Arg Arg Pro Val Asp Thr Leu Thr Glu Thr Ser Ala Ser Arg Ala
245 250 255
Asn Glu Ser Gln Lys Arg Thr Ile Ala Leu Ser Ser Ala Pro Ser Glu
260 265 270
Gln Leu Glu Leu Val Ser Gln Ala Thr Arg Ala Val Arg Thr Ser Thr
275 280 285
Ser Arg Glu Thr Ala Ala Pro Pro Leu Ala Gln Ala Ser Arg Ala Ala
290 295 300

<210> 31607
<211> 195
<212> PRT
<213> A.fumigatus

<400> 31607
Ala Leu Ala Glu Arg Met Pro Val Ser Ser Thr Arg Ala Thr Thr Glu
1 5 10 15
Ala Pro Ala Glu Ile Val Ala Arg Pro Leu Leu Gly Arg Asp Pro Met
20 25 30

```
Ala Met Thr Ser Ala Pro Thr Leu Pro Ser Asn Gln Ala Asn Thr Ala
        35                  40                  45
Thr Phe Arg Glu Ala Asp Arg Val His Ser Glu Leu Ala Ser Gln Ala
    50                  55                  60
Phe Arg Ala Ala Cys Thr Ser Ala Ala Arg Ser Thr Lys Thr Pro Pro
65                  70                  75                  80
Pro Ala Gln Arg Leu Arg Pro Ala Leu Thr Leu Ala Ser Arg Ala Val
                85                  90                  95
Ser Thr Asp Ala Glu Arg Asn Ala Asp Arg Glu Ala Trp Ala Glu Ala
            100                 105                 110
Leu Arg Thr Thr Phe Ala Ala Thr Ser Ala Glu Glu Lys Ile Pro Ser
        115                 120                 125
Met Val Thr Lys Arg Ser Pro Leu Ala Ala Met Ser Ala Gln Val Gly
    130                 135                 140
Ile Ser Thr Asp Ser Pro Ala Gln Thr Ser Ala Glu Arg Val Thr Glu
145                 150                 155                 160
Ala Ser Pro Ser His His Ser Arg Arg Glu Ala Leu Met Asp Ala Ser
                165                 170                 175
Arg Lys Ala Ala Ala Ser Ala Arg Ser Gln Ala Ala Ser Ser Ala Leu
            180                 185                 190
Ala Ala Ala
        195

<210> 31608
<211> 630
<212> PRT
<213> A.fumigatus

<400> 31608
Tyr Leu Pro Arg His Ser Phe Asn Ile Ser Tyr Cys Ala Pro Thr Met
1               5                   10                  15
Arg Ser Asn Lys Leu Phe Leu Leu Ala Ser Leu Val Ser Tyr Val Leu
            20                  25                  30
Ala Leu Pro Thr Asp Val Glu Thr Arg His Leu Lys Leu Gly Ala Asp
        35                  40                  45
Leu Asp Ile Gly Asp Leu Ser Ile Gly Ala Gly Ile Ser Ile Asp Gly
    50                  55                  60
Gly Leu Asp Leu Ser Ala Leu Ile Asn Ala Ile Leu Gly Gly His Ala
65                  70                  75                  80
Ser Thr Thr Thr Leu Leu Ala Gly Leu Ser Ala Gln Ala Ala Ala Ala
                85                  90                  95
Leu Gln Gly Gly Val Leu Gly Cys Lys Ala Gly Ala Ile His Ala Ala
            100                 105                 110
Ala Arg Ala Glu Leu Ala Ala Trp Leu Arg Ala Glu Ala Ala Ala Phe
        115                 120                 125
Leu Asp Ala Ser Ile Lys Ala Ser Leu Leu Glu Trp Cys Glu Gly Asp
    130                 135                 140
Ala Ser Val Thr Leu Ser Ala Asp Val Cys Ala Gly Leu Ser Val Leu
145                 150                 155                 160
Ile Pro Thr Cys Ala Asp Ile Ala Ala Lys Gly Asp Leu Phe Val Thr
                165                 170                 175
Ile Glu Gly Ile Phe Ser Ser Ala Glu Val Ala Ala Asn Val Val Leu
            180                 185                 190
Ser Ala Ser Ala Gln Ala Ser Leu Ser Ala Phe Leu Ser Ala Ser Val
        195                 200                 205
Glu Thr Ala Leu Asp Ala Lys Val Arg Ala Gly Leu Ser Leu Cys Ala
```

```
    210                 215                 220
Gly Gly Gly Val Phe Val Asp Leu Ala Ala Asp Val Gln Ala Ala Leu
225                 230                 235                 240
Lys Ala Trp Leu Ala Ser Ser Glu Cys Thr Leu Ser Ala Ser Leu Lys
                245                 250                 255
Val Ala Val Leu Ala Trp Leu Glu Gly Lys Val Gly Ala Asp Val Ile
            260                 265                 270
Ala Ile Gly Ser Leu Pro Ser Asn Gly Leu Ala Thr Ile Ser Ala Gly
        275                 280                 285
Ala Ser Val Val Ala Leu Val Glu Glu Thr Gly Ile Leu Ser Ala Ser
    290                 295                 300
Ala Gln Ala Ser Leu Ala Ala Phe Leu Glu Ala Gly Ile Ser Ala Gly
305                 310                 315                 320
Leu Asp Ala His Val Gln Ala Ala Leu Glu Ala Cys Ala Lys Gly Gly
                325                 330                 335
Ala Ala Val Ser Leu Asp Val Glu Val Arg Thr Ala Leu Val Ala Trp
            340                 345                 350
Leu Thr Ser Ser Ser Cys Ser Leu Gly Ala Glu Leu Lys Ala Ile Val
        355                 360                 365
Leu Phe Trp Leu Ser Phe Ala Leu Glu Ala Asp Val Ser Val Ser Val
    370                 375                 380
Ser Thr Gly Leu Leu Gly Asp Leu Thr Ser Phe Ile Thr Gly Thr Leu
385                 390                 395                 400
Glu Ala Thr Leu Gly Ser Val Phe Arg Gly Val Ile Ser Ile Leu Ile
                405                 410                 415
Ser Gly Glu Ser Met Ala Ser Leu Ser Leu Asp Ala Arg Ala Gln Leu
            420                 425                 430
Ala Ala Ile Leu Gly Gly Ala Ala Gly Ile Glu Ile Asp Ser Asn Ile
        435                 440                 445
Glu Ile Ile Leu Ile Gly Trp Leu Thr Gly Cys Gly His Leu Pro Ser
    450                 455                 460
Gly Ser Ser Phe Thr Lys Asp Arg Ile Pro Thr Leu Pro Ser Thr Pro
465                 470                 475                 480
Thr Gly Ser Ala Thr Gly Val Pro Ser Val Ser Val Pro Thr Pro Ser
                485                 490                 495
Gly Ile Pro Ser Gly Ser Val Pro Ser Gly Ser Val Pro Asn Val Pro
            500                 505                 510
Val Pro Val Pro Ser Gly Ala Ser Pro Ser Asp Ala Ala Asn Val Pro
        515                 520                 525
Ala Pro Ser Val Pro Ser Gly Ser Val Pro Ser Gly Ala Ser Pro Ser
    530                 535                 540
Gly Ala Ser Asn Gly Asn Val Pro Pro Ile Val Ser Glu Ala Val Pro
545                 550                 555                 560
Ala Pro Ser Gly Asp Ser Pro Ala Gly Pro Asp Ala Ala Glu Thr Pro
                565                 570                 575
Cys Glu Thr Leu Val Ser Glu Thr Val Val Pro Ile Ala Thr Lys Thr
            580                 585                 590
Gly Ala Val Thr Asn Gly Ala Ala Thr Ile Thr Ala Ala Pro Thr Ala
        595                 600                 605
Val Pro Ser Lys Gly Pro Lys Val Ile Thr Val Thr Lys Thr Val Ile
    610                 615                 620
Val Ser Ala Cys Glu Tyr
625                 630
```

<210> 31609
<211> 70

<212> PRT
<213> A.fumigatus

<400> 31609
Val Leu Arg Gln Pro Leu Pro Cys Arg Glu Ala Tyr Leu Val Ala Arg
1 5 10 15
Pro Val Arg Phe Met Pro Pro Pro Glu Leu Asn Trp Pro Pro Gly Phe
20 25 30
Val Leu Arg Pro Pro Pro Ser Ser Met His Pro Ser Arg Leu Pro Phe
35 40 45
Ser Ser Gly Val Lys Val Thr Pro Pro Ser Pro Phe Pro Pro Met Ser
50 55 60
Ala Pro Asp Cys Gln Cys
65 70

<210> 31610
<211> 159
<212> PRT
<213> A.fumigatus

<400> 31610
Arg Leu Pro Cys Trp Leu Gly Trp Arg Val Arg Leu Val Pro Thr Ser
1 5 10 15
Ser Pro Leu Gly Leu Cys Pro Ala Met Val Trp Gln Arg Ser Leu Pro
20 25 30
Val Leu Pro Ser Ser Pro Trp Leu Arg Arg Leu Ala Ser Ser Pro Pro
35 40 45
Ala Leu Arg Leu Leu Ser Pro Pro Ser Ser Lys Pro Ala Phe Pro Pro
50 55 60
Val Ser Thr Pro Thr Phe Arg Pro Pro Ser Arg Pro Ala Pro Arg Ala
65 70 75 80
Val Pro Pro Phe Pro Leu Met Leu Lys Phe Val Pro Leu Ser Ser Pro
85 90 95
Gly Ser Pro Ala Pro Ala Ala Arg Ser Ala Leu Ser Ser Arg Leu Leu
100 105 110
Phe Ser Ser Gly Phe Arg Ser Leu Ser Arg Pro Met Ser Pro Ser Ala
115 120 125
Cys Pro Gln Val Ser Leu Ala Ile Leu Pro Pro Ser Leu Leu Ala Leu
130 135 140
Ser Arg Gln Leu Ser Ala Leu Phe Ser Val Ala Leu Phe Arg Ser
145 150 155

<210> 31611
<211> 200
<212> PRT
<213> A.fumigatus

<400> 31611
Ser Pro Ala Arg Ala Trp Pro Pro Cys Leu Leu Thr Leu Val Pro Ser
1 5 10 15
Trp Leu Leu Phe Leu Val Val Pro Pro Ala Ser Lys Ser Ile Pro Thr
20 25 30
Leu Lys Leu Ser Ser Ser Asp Gly Ser Pro Ala Val Ala Thr Ser Pro
35 40 45
Ala Ala Pro Ala Ser Pro Arg Ile Val Phe Pro Pro Phe Leu Gln Leu
50 55 60

```
Pro Pro Ala Leu Pro Pro Val Phe Leu Leu Ser Leu Cys Pro Leu Leu
65                  70                  75                  80
Pro Ala Ser Pro Ala Ala Pro Phe Pro Pro Ala Pro Ser Leu Thr Cys
                85                  90                  95
Pro Ser Pro Ser Pro Ala Val Leu Pro Pro Leu Met Pro Pro Thr Phe
            100                 105                 110
Leu Pro Pro Ala Ser Pro Ala Ala Pro Phe Leu Leu Val Pro Pro Leu
        115                 120                 125
Ala Glu His Gln Thr Ala Met Phe Pro Pro Leu Phe Pro Arg Gln Ser
    130                 135                 140
Leu Leu Pro Pro Val Ile Leu Leu Leu Ala Leu Thr Pro Pro Arg Arg
145                 150                 155                 160
Leu Ala Arg Leu Trp Phe Leu Arg Leu Leu Ser Pro Leu Leu Pro Arg
                165                 170                 175
Pro Gly Pro Leu Leu Thr Val Leu Arg Pro Ser Pro Leu Pro Leu Pro
            180                 185                 190
Arg Cys Leu Leu Arg Val Pro Arg
        195                 200
```

<210> 31612
<211> 270
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (141),(147),(203),(217),(259)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31612

```
Glu Asn Val Asp Val Trp Ser Leu Gly Ile Ile Leu Tyr Ala Leu Leu
1               5                   10                  15
Ala Gly Glu Leu Pro Phe Asp Glu Tyr Asp Tyr Gln Val Thr Asn Lys
            20                  25                  30
Lys Ile Leu Thr Glu Glu Pro Val Phe Asn Asp Lys Phe Pro Asp Asp
        35                  40                  45
Ala Lys Ala Leu Ile Asn Leu Leu Leu Ser Lys Arg Pro Leu Ile Arg
    50                  55                  60
Pro Ser Leu Ala Asp Ile Leu Ala His Pro Phe Leu Ala Glu His Ala
65                  70                  75                  80
Pro Glu Gln Gln Ala Ile Leu Lys Ile Ala Arg Pro Ala Pro Phe Ser
                85                  90                  95
Thr Pro Leu Glu Arg Thr Thr Leu Gln Arg Met Lys Ser Ala Gly Val
            100                 105                 110
Asn Val Asp Glu Val Met Glu Ser Val Leu Ala Gln Arg Cys Asp Pro
        115                 120                 125
Leu Ala Gly Trp Trp Ala Leu Leu Ile Glu Lys Glu Xaa Arg Lys Glu
    130                 135                 140
Val Arg Xaa Glu Arg Lys Arg Arg Glu Arg Glu Ala Glu Ala Lys Asn
145                 150                 155                 160
Leu Arg Arg Leu Ser Ala Ala Ser Ser Arg Leu Glu Lys Ile Ser Ala
                165                 170                 175
Ala Leu Leu Glu Val Asp Glu Glu Gly His Ala Ser Pro Ser Thr Leu
            180                 185                 190
Leu Gln Glu Arg Arg Lys Arg Asp Arg Arg Xaa Ser Ser Ser Gln Leu
        195                 200                 205
```

```
Ala Val Pro Glu Phe Ala Met Leu Xaa Glu Pro Val Pro Val Gln Pro
    210                 215                 220
Leu Asp Leu Asn Thr Pro Val Ala Pro Pro Pro Pro Pro Thr Asp
225                 230                 235                 240
Lys Asp Ser Val Arg Ser Gly Ser Ser Thr Lys Thr Ser Ala Lys Tyr
                245                 250                 255
Ser Pro Xaa Arg Gln Tyr Ala Thr Ala Lys His Pro Ala Cys
            260                 265                 270
```

<210> 31613
<211> 117
<212> PRT
<213> A.fumigatus

<400> 31613

```
Pro Cys Ala Lys Gln Arg Leu Leu Leu Gln Pro Ser Ser Phe Ile Ser
1               5                   10                  15
Ala Thr Ala Pro Ala Ala Glu Tyr Trp Leu Ser Glu Pro Ser Gln Phe
            20                  25                  30
Ser Ile Ser Val Ser Asn His Ala Lys Gly Leu Val Gln Thr Ile Leu
        35                  40                  45
His Gly Ala Thr Arg Ser Gln Ile His Leu Val Leu Cys Ile Leu His
    50                  55                  60
Thr Lys His Ser Ser Tyr Ala His Ser Leu Gln Gly Val Phe Cys Phe
65                  70                  75                  80
Leu Lys Gln His Trp Ile Arg Ile Asp Pro Asp Gly Ser Ala Phe Glu
                85                  90                  95
Ile Pro Thr Cys Val Asp Lys Ser Ser Pro Tyr Asp Thr Gln Cys Leu
            100                 105                 110
Arg Thr Leu Ser Glu
        115
```

<210> 31614
<211> 277
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (19)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31614

```
Gln Gly Leu Gly Pro Ile Trp Gln Leu Asn Gln Asp Val Gly Gln Val
1               5                   10                  15
Leu Pro Xaa Lys Thr Ile Arg Asp Arg Glu Ala Pro Cys Met Leu Val
            20                  25                  30
Arg Ser His Pro Asp Leu Ala Gln His Asn Gly Ile Leu Arg Arg Arg
        35                  40                  45
Thr Gly Arg Arg Gln Tyr Pro Ile Ile Ser Gln Leu Ala Ser Leu Lys
    50                  55                  60
His Trp Leu Met Glu Ser Ala Lys Arg Ala Lys Ser Pro His Pro Lys
65                  70                  75                  80
Ser Ala Gly Gly Gly His Arg Lys Phe Phe Ser Asp Arg Leu Ser Pro
                85                  90                  95
Gly Lys Gly Gln Glu Val Gly Lys Lys Pro Ala Pro Thr Ser Pro Asn
```

```
            100                 105                 110
Ile Pro Pro Ala Gly Asp Leu Ala Thr Pro Thr Gln Ile Lys Arg Ala
        115                 120                 125
Ser Asn Ala Ser Ser Leu Ala Pro Ser Ser Ala Ser Tyr Ser Asn His
    130                 135                 140
Arg His Ser Tyr Pro Arg Gln Pro Arg Pro Leu Ser Thr Gly Tyr Pro
145                 150                 155                 160
Ser His Arg Asn Ser Leu Ser Pro Ser Pro Ile Thr Pro Arg Gly Ser
                165                 170                 175
Tyr Arg Arg Ser Ser Thr Gly Leu Arg Gly Arg Lys Ser Thr Ser Ser
            180                 185                 190
Ser Val Ser Ser Ile Arg Ser Ile His His Thr His Thr His Ser Lys
        195                 200                 205
Ala Ser Ser Val Ser Ser Asn Ser Ile Gly Ser Ala Ser Thr Pro Thr
    210                 215                 220
Ala Arg Pro Ser Arg Ser Pro His Ala Ser Ile Lys Val Leu Pro Thr
225                 230                 235                 240
Thr Pro Ser Ala Ser Ala Arg Phe Pro Ser Asn Ile Arg Leu Val Arg
                245                 250                 255
Asn Ala Gly Asn Gly Phe Arg Asp Thr His Asp Ala Asn Gly Arg Met
            260                 265                 270
Gln Ser Val Phe Asn
        275
```

<210> 31615
<211> 140
<212> PRT
<213> A.fumigatus

```
<400> 31615
Ser Pro His Arg Val Thr Phe Gln Pro Arg Arg Cys Lys Asn Val Thr
1               5                   10                  15
Met Phe Phe Glu Ser Val Cys Phe Pro Thr Ile Val Ala Leu Gly Ile
            20                  25                  30
Arg Gly Leu Gly Arg His Tyr Lys Arg Gly Ser Gly Phe Ile Val Gly
        35                  40                  45
Gly Val Cys Gly Gly Ala Val Val Pro Pro Leu Leu Gly His Val Ala
    50                  55                  60
Asp Met His Asn Ser Thr Gly Phe Ala Met Ile Val Pro Thr Met Phe
65                  70                  75                  80
Met Val Ala Ala Trp Thr Tyr Ala Val Ala Val Asn Phe Val Pro Ala
                85                  90                  95
Tyr Arg Asp Thr Val Asp Lys Val Gly Asp Ser Gln Ile Gly Leu Thr
            100                 105                 110
Glu Gly Gly Gly Ala Gly Val Met Lys Asp Ile Glu Ala Arg Gly Met
        115                 120                 125
Glu Lys Ser Ala Glu Gly Ser Val Gln Ile Glu His
    130                 135                 140
```

<210> 31616
<211> 442
<212> PRT
<213> A.fumigatus

```
<400> 31616
Glu Phe Ser Tyr Phe Arg Thr Glu Val Leu Gln Leu Asp Gln Ile Ala
```

```
1               5                  10                  15
Gln Arg Leu Gly Phe Pro Ser Val Val Pro Val Ile Asp Gly Ser Ile
            20                  25                  30
Asp Asp Gly Pro Ala Ser Pro Val Leu Thr Gln Leu Ser Val Thr Val
        35                  40                  45
Leu Glu Ile Ala Leu Ala Arg Phe Trp Ser His Leu Gly Ile Arg Ile
    50                  55                  60
Ser Ala Val Ile Gly His Ser Leu Gly Glu Tyr Ala Ala Phe Ala Val
65                  70                  75                  80
Ala Gly Val Ile Ser Ala Thr Glu Ala Leu Tyr Leu Val Gly Arg Arg
                85                  90                  95
Ala Gln Leu Thr Glu Glu Arg Cys Thr Gln Gly Ser His Ser Met Leu
            100                 105                 110
Ser Val Arg Ala Ser Glu Asp Asp Ile Glu Glu Leu Ile Ala Gly Ser
        115                 120                 125
Pro Asp Thr Ala Glu Leu Ala Tyr Glu Val Cys Cys Arg Asn Thr Pro
    130                 135                 140
Gln Asp Thr Val Ile Gly Gly Thr Gln Glu Ser Ile Asp Ser Ile Arg
145                 150                 155                 160
Gln Ala Leu Glu Lys Asn Thr Ile Lys Cys Thr Gln Leu Asp Val Pro
                165                 170                 175
Phe Ala Phe His Thr Ala Gln Met Asp Pro Ile Leu Asp Ser Leu Glu
            180                 185                 190
Thr Leu Ala Thr Pro Ile Thr Phe Lys Ala Pro Ser Ile Pro Val Leu
        195                 200                 205
Ser Pro Leu Leu Gly Ser Val Val Phe Asp Arg Lys Ser Ile His Ala
    210                 215                 220
Gln Tyr Leu Arg Arg Ala Thr Arg Glu Thr Val Asp Phe Val Ala Ala
225                 230                 235                 240
Ile Glu Ala Ala Gln Asp Phe Gly Leu Val Asp Ala Lys Thr Ile Trp
                245                 250                 255
Ile Asp Val Gly Pro His Pro Ile Cys Ala Gly Leu Val Arg Gly Ile
            260                 265                 270
Asp Ser Ser Ala Ser Val Ile Ser Ser Cys Arg Arg Asn Glu Asp Asn
        275                 280                 285
Leu Ala Thr Met Ser Lys Ser Leu Val Thr Leu His Leu Ala Gly Leu
    290                 295                 300
Thr Pro Cys Trp Ala Glu Tyr Phe Arg Pro Arg Glu Gln Glu Tyr Ser
305                 310                 315                 320
Leu Leu Lys Leu Pro Thr Tyr Ser Trp Asn Glu Thr Asp Tyr Trp Ile
                325                 330                 335
Pro Tyr Ile Gly Thr Trp Thr Leu Asp Lys Ala Leu Leu Lys Tyr Gly
            340                 345                 350
Glu Lys Lys Ala Pro Leu Ser Leu Ser Met Ser Arg Pro Ser Ala Leu
        355                 360                 365
Arg Thr Ser Leu Val His Gln Ile Thr Thr Glu Thr Val Glu Ala Thr
    370                 375                 380
Thr Ala Thr Leu His Val Leu Ser Asp Met Gln His Pro Asp Phe Leu
385                 390                 395                 400
Glu Ala Leu His Gly His Arg Met Asn Asn Cys Gly Val Ala Thr Ser
                405                 410                 415
Val Cys His Leu Phe Tyr Thr Leu Arg Thr Ser Gly Val Tyr Ala Cys
            420                 425                 430
Lys Gln Ser Cys His Cys Leu Gly His Ser
        435                 440
```

<210> 31617
<211> 65
<212> PRT
<213> A.fumigatus

<400> 31617
Thr Leu Arg Leu Ala Ala Trp Cys Tyr Arg Cys Arg Leu Leu Ile Ala
1 5 10 15
Thr Gly Asp Ile Ile Asn Met Ile Leu Trp Leu Leu Pro Gly Ser Leu
20 25 30
Asp Trp Gly Arg His Phe Arg Gln Arg Ile Val Leu Ile Val Arg Val
35 40 45
Leu Asn Tyr Ser Ile Lys Gly His Phe Val Lys Gly Met Tyr Leu Ala
50 55 60
Leu
65

<210> 31618
<211> 444
<212> PRT
<213> A.fumigatus

<400> 31618
Trp Leu Trp Trp Ile Asn Val Gly Ser Val Met Thr Glu Ile Gly Leu
1 5 10 15
Ala Gln Gln Arg Leu Phe Asp Asp Ala Pro His Ser Ala Ile Arg Glu
20 25 30
Ala Gln Thr Ala Ala Cys Gly Asn Gln Pro Asp Asn Cys Ser Ala Leu
35 40 45
Ala Glu Ser Ser Val Pro Leu Asn Met Ala Val Ser Asn Tyr Asp Asp
50 55 60
Tyr Asn His His Glu Gly Ser Pro Val Ala Leu Gln Leu Gly Ser Phe
65 70 75 80
Asp Thr Pro Thr Ser Gln Asp Met Ala Leu Leu Asn Gly Lys Asn His
85 90 95
Gly His Gly Tyr Ser Asn Asn Asp Ile Thr Gly Phe Tyr Gly Asp His
100 105 110
Ile Arg Gln Val Gly Pro Leu Asn Cys Ser Ser Thr His Asp Leu Ala
115 120 125
Gln Ser Ser Thr Ser Tyr Asn Phe Phe Glu Ser Ser Leu Asn Gln Ala
130 135 140
Ala Gln Leu Asn Asp Asp Leu Gln Ser His Leu Arg Ser Ser Gly Thr
145 150 155 160
Val Gln Thr Glu Ala Ile His Lys Thr Pro Gly Arg Ser His Ser Met
165 170 175
Gln Ala Thr Ser Tyr Ser Pro His Asp Thr Glu Pro Ile Ser Ser Leu
180 185 190
Val Thr Pro Lys Val Asn Arg Val Gln Ser Asp Ser Thr Tyr Arg Phe
195 200 205
Ala Pro Ser Gln Ser Gln Arg Ser Glu Cys Asp Glu Leu Ala Ala Pro
210 215 220
Val Thr Val Glu Ile Pro Ala Val Lys Leu Lys Arg Gly Arg Lys Arg
225 230 235 240
Lys Gln Asp Ile Pro Glu Gly Asp Glu Asp Asp Glu Leu Ala Pro Ser
245 250 255
Asn Asp Arg Ala Ile Pro Glu Gly Gly Glu Thr Val Lys Arg Lys Pro

```
            260                 265                 270
Ser Arg Pro Pro Lys Val Val Arg Thr Leu Asn Glu Ser Asp Asp Ala
        275                 280                 285
Gly Leu Ala Asn Asn Gln Pro Lys Asp Gln Pro Val Pro Asn Thr Glu
    290                 295                 300
Glu Ile Gln Asp Leu Gly Asp Thr Pro Leu Thr Pro Asp Ala Ile Glu
305                 310                 315                 320
Ser Asn Pro Asn Ala Asn Gly Ile Ser His Val Pro Glu Lys Asp Tyr
                325                 330                 335
Phe Arg Val Glu Val Ala Asn Gly Ser Lys Asp Asn Gly Thr Glu Val
            340                 345                 350
Leu Asn Asp Gln Pro Ala Glu Ile Ser Thr Pro Pro Ala Lys Pro Ser
        355                 360                 365
Lys Lys Ala Lys Glu Ile Lys Lys Lys Lys Leu Lys Arg Gly Lys Thr
    370                 375                 380
Thr Ser Val Thr Leu Lys Lys Ser Tyr Glu Ser Asp Ile Glu Asp Asp
385                 390                 395                 400
Val Ile Trp Val Asp Glu Arg Pro Ser Asn His Ile Leu Gln Asp Glu
                405                 410                 415
Gln Pro Ala Gln Lys Pro Ser Asn Asp Gln Thr Ser Val Asp Thr Lys
            420                 425                 430
Asp Thr Glu Leu Phe His Ile Gln Ile Pro Ile Pro
        435                 440
```

<210> 31619
<211> 169
<212> PRT
<213> A.fumigatus

<400> 31619

```
Ser Leu Pro Thr Leu Val Leu Asn Pro Ile Ser Lys Ile Ala Glu Asp
1               5                   10                  15
Ile Ala Arg Ala Ala Pro Ser Gly Arg Ser Ile Leu Val Asp Ala Phe
            20                  25                  30
Ala Gly Ala Gly Gly Asn Thr Ile Ala Phe Ala Arg Thr Gly Lys Trp
        35                  40                  45
Lys Arg Val Tyr Ala Ile Glu Lys Asn Pro Ala Val Leu Gln Cys Ala
    50                  55                  60
Lys His Asn Ala Gln Val Tyr Gly Val Ala Asp Lys Ile Thr Trp Phe
65                  70                  75                  80
Glu Gly Asp Cys Phe Ser Ile Leu Lys Asn Gln Leu Lys Glu Leu Ala
                85                  90                  95
Pro Tyr Ser Val Ile Phe Ala Ser Pro Pro Trp Gly Gly Met Phe Phe
            100                 105                 110
Ala Phe Ser Phe Val Leu Ala Val Gln Leu Ser Asn Pro Ser Cys Arg
        115                 120                 125
Pro Trp Val Ser Phe Gly Arg Ser Leu Gln Ser Thr Asp His Gly Thr
    130                 135                 140
Leu Leu Pro Gln Asn Ala Ala His Arg Val Leu Pro Ile His Lys Ile
145                 150                 155                 160
His Arg Pro Leu Pro Ser Ser Asn Val
                165
```

<210> 31620
<211> 89
<212> PRT

<213> A.fumigatus

<400> 31620
Trp Thr Ser Ile Gly Thr Trp Asp Leu Thr His Cys Arg Ser Phe Gly
1 5 10 15
Leu Pro Asn Met Ala Ser Asn Ser Thr Asp Glu Ala Pro Pro Glu Val
20 25 30
His His Tyr Asn Tyr Ile Gly Glu Val Pro Trp Asp Ile Gln Lys Tyr
35 40 45
Val Leu Pro Thr Asp Pro Arg Leu Gly Ser Ser Ala Asp Phe Leu Val
50 55 60
Thr Gly Arg Asn Asp Thr Arg Tyr Phe Arg Asp Thr Met Lys Ala Ser
65 70 75 80
Gly Ser Pro Thr Thr Pro Gly Leu Val
85

<210> 31621
<211> 134
<212> PRT
<213> A.fumigatus

<400> 31621
Arg Thr Arg Ser His Gly Ser Arg Val Ile Val Ser Leu Phe Ser Arg
1 5 10 15
Ile Asn Ser Arg Asn Ser Leu Leu Ile Ala Ser Ser Leu Gln Val Arg
20 25 30
His Gly Val Val Cys Ser Leu Leu Phe Pro Ser Phe Trp Pro Cys Ser
35 40 45
Cys Leu Thr Arg Pro Val Gly Pro Gly Tyr Arg Ser Asp Glu Val Phe
50 55 60
Asn Leu Arg Thr Met Glu Pro Tyr Ser Leu Lys Thr Leu His Thr Glu
65 70 75 80
Tyr Ser Leu Phe Thr Lys Tyr Ile Val Leu Tyr Leu Pro Arg Thr Ser
85 90 95
Asp Val Arg Gln Leu Ala Lys Leu Val Arg Asp Gly Glu Lys Ala Pro
100 105 110
Val Val His Tyr Cys Met Glu Arg Ala Ser Lys Ala Leu Cys Ile Tyr
115 120 125
Tyr Gly Gly Phe Asp Leu
130

<210> 31622
<211> 156
<212> PRT
<213> A.fumigatus

<400> 31622
Asp Gly Ala Gly Gly Leu Ser Gly Pro Tyr Ala Asp Ile Ala Asn Arg
1 5 10 15
Ala Cys Trp Ser Phe His Ala Arg Arg Ala Ala Gly Ser Met Ser Ser
20 25 30
Ala Val Gly Val Thr Val Pro Ser Ser Ser Lys Gly Ser Ser Ser Ser
35 40 45
Ser Ser Ile Val Ile Gly Ser Gly Ser Gly Ala Ser Val Ser Ala Gly
50 55 60
Leu Thr Gly Thr Gly Gly Leu Val Ser Ser Ser Ser Lys Asn Lys Ser

```
65                  70                  75                  80
Arg Val Val Ser Ile Cys Ala Gly Pro Gly Glu Asp Gly Pro Ser Pro
                85                  90                  95
Lys Arg Ser Ser Ser Ser Ser Pro Pro Gly Ala Cys Trp Ser Ser Arg
            100                 105                 110
Ser Pro Lys Arg Ser Ser Ser Ala Ser Asn Asn Pro Phe Cys Ser Ser
        115                 120                 125
Ser Ala Thr Ala Ala Thr Ser Ser Val Ala Ser Pro Pro Val Arg Ser
    130                 135                 140
Ser Ser Ser Gly Arg Ser Ser Ser Ser Met Ser Ser
145                 150                 155
```

<210> 31623
<211> 68
<212> PRT
<213> A.fumigatus

<400> 31623

```
Asn Ser Thr Ala Ser Leu Leu Val Ser Phe Pro Ala Leu Ser Gly Gly
1               5                   10                  15
Asp Gly Val Phe Glu Gln Phe Ala Ser Ser Ser Asp Phe Phe Ser Trp
            20                  25                  30
Ser Asn Glu Phe Ser Asn Ile Phe Gly Cys Val Ser Gln Leu Asp Val
        35                  40                  45
Phe Asp Cys Phe Pro Glu Arg Gly Ser Ile Arg Leu Ile Gly Pro Ser
    50                  55                  60
Ser Ala Ser Asn
65
```

<210> 31624
<211> 718
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (21)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31624

```
Ser Gly Cys Ser Ala Phe His Leu Ser Ile Ser Leu Leu Ser Ser Leu
1               5                   10                  15
Glu Ser Lys Leu Xaa Cys Leu Phe Asn Leu Leu Glu Asn Ser Ser Gly
            20                  25                  30
His Ala Trp Leu Ile Arg Cys His His Val Cys Arg Val Met Pro Leu
        35                  40                  45
Leu Asn Arg Ser Gln Ser Ser Pro Asp Ala Gly Ile Arg Pro Leu Gln
    50                  55                  60
Ala Pro Asp Thr Tyr Phe Ser Arg Asn Ser Arg Ser Met Pro Val Ser
65                  70                  75                  80
Asp Thr Ser Ser Ser Ser Tyr Asn Ala Ser Val Lys Arg Leu Gly Tyr
                85                  90                  95
Arg Arg Ile Arg Pro Ser Val Ala Ser Ile Ala Asp Ile Phe Val Asn
            100                 105                 110
Ser Leu Val Met Ala Ser Phe Cys Arg Asp His Ser Pro Arg Asn Arg
        115                 120                 125
```

```
Gly Leu Ser Thr Val Ala Val Lys Thr Ser Leu Gln Asn Met Ala Arg
    130                 135                 140
Met Lys Gly Lys Cys Ser Thr Thr Ile Arg Arg Leu Thr Ser Gly Lys
145                 150                 155                 160
Arg Pro Val Pro Ser Ser Asn Ser Pro Val Glu Cys Phe Gly Phe Asp
                165                 170                 175
Arg Trp Arg Thr Arg Arg Thr Phe Asn Ser Gly Val Val Gln Lys Val
            180                 185                 190
Lys Asp Asp Asp His Gly Glu Gly Tyr Gly Thr Gln Lys Asn Val Thr
        195                 200                 205
Gly Leu Asp Gln Arg Ala Glu Asp Leu Glu Ala Gly Arg Ser Gln Gly
    210                 215                 220
Tyr Thr Ser Gln Ser Ala Leu Leu Arg Ser Lys Arg Lys Pro Phe Phe
225                 230                 235                 240
Arg Asp Asn Gly Pro Ser Asn Glu Pro His Pro Ser Gly Ser Glu Glu
                245                 250                 255
Leu Ile Ser Asn Gln Thr Arg Gly Gln Phe Asp Ala Leu Glu Gly Pro
            260                 265                 270
Ile Asn Leu Ile Asp Pro Leu Ser Gly Lys Gln Ser Asn Thr Ser Ser
        275                 280                 285
Trp Glu Thr His Pro Lys Met Leu Glu Asn Ser Leu Asp Gln Glu Lys
    290                 295                 300
Lys Ser Glu Glu Asp Ala Asn Cys Ser Lys Thr Pro Ser Pro Pro Leu
305                 310                 315                 320
Lys Ala Gly Lys Asp Thr Asn Arg Asp Ala Val Glu Phe Gln Ala Val
                325                 330                 335
Gln Arg Phe Leu Glu Ala Val Gly Asp Pro Lys Lys Thr Asn Gln Tyr
            340                 345                 350
Ile Phe Arg Leu Tyr Arg Asp Leu Pro Ser Pro Gly Val Ala His Leu
        355                 360                 365
Ser Lys Arg Thr Arg Gly Leu Leu Leu Arg Arg Met Ser Gln Pro Pro
    370                 375                 380
Asn Arg Arg Trp Ala Asp Ala Arg Arg Tyr Leu Ala Ile Val Glu Asp
385                 390                 395                 400
Met Ile Ala Ala Lys Leu Pro Leu Ser Pro Ala Leu Trp Thr Ser Ala
                405                 410                 415
Ile His Leu Ala Gly Arg Ala Met Gly Gln Val Lys Lys Gln Asp Leu
            420                 425                 430
Val Arg Ser Ile Gly Ile Trp Gln Gln Met Glu His Leu Ala Gly Ile
        435                 440                 445
Glu Ser Asp Pro Val Val Phe Thr Ile Leu Phe Asp Ile Ala Ile Lys
    450                 455                 460
Ala Ser Gln Phe Thr Val Ala Asp Arg Leu Leu Glu Glu Met Ser Lys
465                 470                 475                 480
Arg Gly Ile Glu Phe Arg Arg Ala Gly Lys Val Ser Lys Ile Tyr Tyr
                485                 490                 495
Tyr Gly Met Leu Arg Asp Val Asn Gly Ile His Arg Ala Phe Asp Glu
            500                 505                 510
Phe Leu Ala Ala Gly Glu Ile Val Asp Thr Ala Val Leu Asn Cys Leu
        515                 520                 525
Met Thr Ser Phe Ile Arg Ala Gly Lys Ile Arg Ile Ala Glu Ser Leu
    530                 535                 540
Tyr Gln Arg Met Met Gln Ala Gln Ala Ala Ala Arg Pro Ala Gly Asp
545                 550                 555                 560
Thr Asn His Lys Gly Val Ser Thr His Gln Pro Ala Leu Ala Ser Glu
                565                 570                 575
```

```
Leu Val Leu Tyr Arg Lys Ala Ala Lys Glu Leu Asn Arg Ala Phe Glu
            580                 585                 590
Met Ala Ala Arg Ile Lys Asn Thr Leu Pro Ala His His Arg Ala Leu
        595                 600                 605
Gln Glu Ser Ile Pro Met Ser Pro Asp Thr Arg Thr Phe His Ile Phe
    610                 615                 620
Leu Ser Tyr His Ala Ile His Ser Gly Asn Leu Gln Ala Phe Ser Lys
625                 630                 635                 640
Ile Val Glu Asp Met Glu Lys Thr Phe Thr Ile Pro Pro Arg Gly Met
                645                 650                 655
Ile Tyr Leu Met Leu Phe Glu Gly Phe Ala Arg His Gly Arg Lys Lys
            660                 665                 670
Lys Gly Trp Thr Ala Asp Lys Leu Gln Ile Ala Trp Arg Ser Tyr Val
        675                 680                 685
Arg Ala Leu Tyr Glu Ser Arg Thr Lys Asn Glu Trp Arg Leu Leu Ala
    690                 695                 700
Phe Ile Asp Pro Ala Leu Thr Trp Glu Asn Pro Ile Lys Gly
705                 710                 715
```

<210> 31625
<211> 67
<212> PRT
<213> A.fumigatus

<400> 31625

```
Lys Met Gln Val Leu Gln Glu Gln Ser Ser Lys Arg Gly Ile Ile Asn
1               5                   10                  15
Tyr Ser Leu Ala Gly Glu Ser Phe Asn Ser Ser Leu Asn Tyr Ser Lys
            20                  25                  30
Asp Ile Asn Cys Ile Cys Leu Phe Ser Pro Arg Leu Leu Glu Leu Asp
        35                  40                  45
Ala Val Pro Asn Leu Ala Val Leu Pro Ser Thr Phe Pro Ser Arg Tyr
    50                  55                  60
Ser Leu Pro
65
```

<210> 31626
<211> 439
<212> PRT
<213> A.fumigatus

<400> 31626

```
Cys Glu Arg Ala Ala Lys Glu Gln Ala Lys Gln Glu Ala Phe Glu Arg
1               5                   10                  15
Ala Tyr Ala Leu Ala Gly Leu Thr Glu Glu Leu Glu Val Leu Lys Gly
            20                  25                  30
Arg Leu Arg Asn Val Glu Ala Asn Arg Arg Ser Asp Arg Leu Glu Ala
        35                  40                  45
Arg Ala Lys Glu Met Ser Asn Glu Asn Ile Gly Arg Leu Ser Leu Glu
    50                  55                  60
Glu Gly Asp Leu Ala Phe Met Leu Thr Pro Ala Pro Arg Arg Pro Lys
65                  70                  75                  80
Arg Pro Ala Asp Asp Ser Thr Gln Ser Pro Leu Ala Glu Ser Thr Asp
                85                  90                  95
Gln Pro Thr Ala Gln Asp Thr Pro Pro Lys Arg Leu Arg Leu Ser Asp
            100                 105                 110
```

```
Val Thr Pro Arg Gln Gly Asp Gln Asn Thr Leu Ser Thr Asn Thr Gln
        115                 120                 125
Gln Glu Ile Ile Asp Ser Leu Glu Glu Met Leu Lys His Glu Arg Lys
    130                 135                 140
Met Arg Leu Asp Ala Glu Asp Met Ile Glu Phe Leu Arg Met Glu Cys
145                 150                 155                 160
Glu Phe Lys Arg Cys Ser Cys Arg Leu Ala Glu Glu Glu Glu Gln Ala
                165                 170                 175
His Leu Val His Ala Pro Ala Arg Glu Asp Val Val Ala Lys Asp Glu
            180                 185                 190
Val Gln Asn Ile Ile Glu Glu Arg Arg Asp Ile Arg Gly Pro Glu Ala
        195                 200                 205
Gln His His Ser Arg Phe Asp Asn Pro Leu Gln Gly Ser Gly Pro Thr
    210                 215                 220
Glu Gln Glu Arg Pro Gln Glu Gln Pro Glu Glu Leu Leu Ile Thr Phe
225                 230                 235                 240
Ser Pro Val Thr Gly Thr Phe Lys Ser Val Pro Ser Pro Val Arg Ser
                245                 250                 255
Pro Pro Lys Gln Pro Gln Gly Thr Ala Phe Ser Gly Leu Glu Ser Ser
            260                 265                 270
Ile Ser His Glu Asn Leu Ser Ala Glu Gln Leu Leu Ile Ser Pro Phe
        275                 280                 285
Glu Glu Arg His Ile Asn Arg His Glu Pro Ser Phe Asp Pro Thr Val
    290                 295                 300
Gln Val Lys Glu Asp Pro Phe Gln Pro Phe Ala Pro Gly Leu Gln Pro
305                 310                 315                 320
Ser Pro Ala Arg Ile Ser Val Pro Trp Asp Ser Pro Ser Pro Arg Tyr
                325                 330                 335
Ser Ile Glu Asp Asn His Asn Ala Pro Thr Gly Ser Asp Gly Ala Leu
            340                 345                 350
Ala His His Ser Val Pro Leu Pro Gly Thr Ser Ile Asp Arg Glu Gln
        355                 360                 365
Ala Leu Ala Gln Ile Arg Ala Arg Arg Gly Lys Thr Ser Thr Leu Lys
    370                 375                 380
Arg Ser Val Ser Ala Asn Glu Ala Thr Leu Arg Ser Gly Gly Gly Gly
385                 390                 395                 400
Val Thr Pro Gly Arg Gly Ala Gln Arg Ile Pro Gly Val Gln Asn Ser
                405                 410                 415
Ala Val Arg Thr Asp Gly Asp Lys Ala Val Arg Arg Asp Leu Ser Ala
            420                 425                 430
Pro Val Arg Met Leu Arg Arg
        435
```

<210> 31627
<211> 312
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (70),(114)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31627

```
Pro Gly Ser Val Trp Ile Ala Cys Ser Thr Asp Ser Val Val Ser Met
1               5                   10                  15
```

```
Lys Ser Glu Leu Leu Lys Phe Leu Val Thr Leu Arg Ala Pro His Ser
            20                  25                  30
Arg Asn Ala Ala Gln Lys Val Phe Arg Lys Ile Ser Val Leu Leu Asn
        35                  40                  45
Arg Ser Ala Gln His Asn Ala Ser Gln Ala Ile Tyr Leu Lys Ala Thr
    50                  55                  60
Gln Arg Asp Ala Arg Xaa Tyr Thr Ile Leu Arg Lys Gly Leu His His
65                  70                  75                  80
Ile Ser His Asp Asn Thr Ala Ser Gly Glu Asp Glu Asp Ser Asp Ala
                85                  90                  95
Ala Ser Thr Tyr Ser Ser Ser Pro Val Val Glu Pro Leu Ser Trp Thr
            100                 105                 110
Arg Xaa Ala Tyr Thr Ser Phe Ile Trp Trp Ala Ser Ala Gly Glu Lys
        115                 120                 125
Arg Asp Gly Leu Thr Glu Glu Glu Glu Glu Glu Arg Gln Ile Glu Gln
    130                 135                 140
Asp Thr Arg Leu Leu Ala Ser Leu Glu Ala Ile Pro Thr Pro Pro Ser
145                 150                 155                 160
Gly Ser Leu Gly Arg His Ser Met Gln Ala Glu Asp Ala Ser Gln Pro
                165                 170                 175
Pro Glu Ile Ala Leu Val Ser Tyr Phe Arg Arg Leu Thr Thr Gln Leu
            180                 185                 190
Phe Val Thr Leu Ser Asp Val Ile Ala Arg Gln Asp Gly Arg Asp Gly
        195                 200                 205
Glu Gln Asp Ala Asp Ile Gly Ala Pro Tyr Glu Asp Glu Ser Glu Glu
    210                 215                 220
Ala Asp Ala Glu Pro Ser Ile Ser Val Gly Arg Glu Val Ser Gln Gly
225                 230                 235                 240
Asp Asp Ser Arg Arg Pro Leu Leu Pro Ser Gly Ala Lys Ser Ser Pro
                245                 250                 255
Glu Asp Asp Glu Leu Val Thr Ile Thr Ser Glu Asp Met Thr Glu Met
            260                 265                 270
Gly Leu Asp Val Trp Ser Ala Ser Asp Arg Ile Phe Val Glu Glu Leu
        275                 280                 285
Val Arg Ser Trp Trp Gly Arg Lys Ala Tyr Val Asp Thr Ala Arg Ile
    290                 295                 300
Lys Cys Cys Gly Ile Ser Ile Ile
305                 310
```

<210> 31628
<211> 107
<212> PRT
<213> A.fumigatus

```
<400> 31628
Arg Gly Thr Phe His Arg Val Val Lys Ile Leu Ala Thr Val Ala Phe
1               5                   10                  15
Tyr Phe Ala Lys Thr Arg Phe Met Pro Arg Val Gln Asn Asp Lys Met
            20                  25                  30
Phe Arg Trp Asp Tyr Asp Tyr Val Glu Tyr Gly Asp Ser Ala Leu Asp
        35                  40                  45
Tyr Gly Tyr Gly Pro Ala Ser Phe Glu Gly Glu Phe Asn Leu Asp Ser
    50                  55                  60
Asp Glu Trp Thr Val Gly Ser Ser Ser Ser Ile Ser Ser Gly Ser Leu
65                  70                  75                  80
Ser Pro Val Asp Asp His Tyr Ser Trp Glu Gly Glu Thr Leu Ala Ser
```

```
                85                  90                  95
Pro Ala Thr Asp Ile Glu Ser Gly Arg His Phe
            100                 105
```

<210> 31629
<211> 69
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (6)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31629

```
Ser Glu Lys Ser Phe Xaa Met Arg Thr Thr Tyr Pro Val Leu Gly Pro
1               5                  10                  15
Lys Ile His His Glu Val His Val Gln Asn Cys Gln Ala Ser Met Ala
            20                  25                  30
Lys Ser Asp Leu Ala Tyr Leu Asn Thr Phe Arg Arg Leu Gln Val Leu
        35                  40                  45
Pro Arg Ile Asn Gln Thr Thr Val Arg Leu Glu Pro Ser Phe Lys Leu
    50                  55                  60
Arg Pro Phe Arg Lys
65
```

<210> 31630
<211> 129
<212> PRT
<213> A.fumigatus

<400> 31630

```
Pro Ser Met Ser Gly Ser Ile Leu Ala Leu Thr Leu Tyr Leu Phe Lys
1               5                  10                  15
Gly Tyr Trp Met Pro Tyr Glu Ala Ala Lys Ala Val Ala Ala Thr Phe
            20                  25                  30
Cys Trp Lys Ile Arg His Ala Leu Thr Pro Leu Phe Gly Leu Asp Phe
        35                  40                  45
Pro Ser Met Cys Ile His Pro Gln Asp Arg Gly Arg Phe Gly Arg Met
    50                  55                  60
Val Ile Asp Pro Ala Ile Val Arg Lys Ala Thr Glu Thr Ala Asn Tyr
65                  70                  75                  80
Tyr Arg Ile Leu Glu Leu Gln Ser Pro Ser Tyr Ser Ser Leu His Leu
                85                  90                  95
Thr Arg Thr Gly Gly Lys Phe Arg Pro Asn Ser Thr Gly Ser Ser Gly
            100                 105                 110
Phe Val Lys Arg Leu Ile Pro Arg Ser His Glu His Arg Tyr Ser Gly
        115                 120                 125
Glu
```

<210> 31631
<211> 187
<212> PRT
<213> A.fumigatus

<400> 31631
Asn Ala Val Tyr Met Ala Ser Ile Ala Ser Leu Leu Asn Pro Leu Pro
1 5 10 15
Gly Pro Ser Gln Leu Ser Ser Pro Thr Arg Thr Leu Ala Ser Ser Ala
20 25 30
Ala Ser Met Ala Ser Asn Thr Pro Arg Pro Lys Arg Pro Lys Val Ala
35 40 45
Lys Asp Ala Ala Ile Phe Thr Lys Ala Lys Pro Arg Gly Glu Val Arg
50 55 60
Tyr Pro Pro Cys Glu Glu Arg Asp Glu Glu Leu Ala Arg Met His Arg
65 70 75 80
Glu Phe Arg Ile His Pro Met Gly Asp Ile Ser Glu Tyr Ala Arg His
85 90 95
Ile Pro Tyr Asn Ser Asp Lys Lys Ser Phe Gln Glu Arg Thr Gly Arg
100 105 110
Glu Ser Phe Glu Gly Glu Ser His Ser Glu Gln His Thr Thr Tyr Pro
115 120 125
Arg Gly Val Tyr Ala Tyr Lys Ile Ser Ile Val Phe Gln Tyr Thr Phe
130 135 140
Lys Leu Pro Gly Asp Glu Lys Glu Trp Ile Val Met Trp Asp Tyr Asn
145 150 155 160
Ile Gly Leu Val Arg Thr Thr His Leu Phe Lys Cys Asn Asp Tyr Ser
165 170 175
Lys Val Tyr Ser Thr Thr Ser Ala Ala Ser Ser
180 185

<210> 31632
<211> 203
<212> PRT
<213> A.fumigatus

<400> 31632
Ser Asp Ser Tyr Pro Asp Leu Met Ser Thr Asp Thr Gln Glu Ser Arg
1 5 10 15
Thr Gly Tyr Gly Ser Ser Ser Pro Glu Cys His Gly Asp Val Tyr Cys
20 25 30
Val Ser Pro Val Ser Pro Phe Arg Asn Ser Phe Thr Pro Val Asn Thr
35 40 45
Pro Arg Ser Ser Glu Val Ile Gly Ser Lys Leu Leu Ser Pro Arg Ala
50 55 60
Ile Ala Ala Thr Thr Ala Pro Met Pro Asp Arg Glu His Thr Ala Gly
65 70 75 80
Ser Glu Glu Asp Ser Gly Ser Asp Glu Thr Gly Ser Ser Thr Met Tyr
85 90 95
Thr Glu Ser Thr Ser Thr Thr Thr Glu Val Leu Ser Val Asp Leu Asp
100 105 110
Ala Asp Asp Asp Asp Asp Asp Glu Asp Tyr Arg Glu Lys Ser Asp Arg
115 120 125
Ser Asp Arg Gly Ser Val Asn Ser Ser Ile Pro Asp His Asn Arg Lys
130 135 140
Ile Glu Thr Arg Ser Arg Gly Lys His Ser Ser Ala Leu Phe Ala Arg
145 150 155 160
Glu Val Lys Ala Ala His Ala Leu Leu Ser Leu His Met Gln Glu Ala
165 170 175
Met Gly Ser Asp Gly Asp Glu Glu Pro Leu Leu Met Ala Ser Arg Gly
180 185 190

Leu Asn Ser Arg Lys Arg Arg Arg Ala Ser Ala
195 200

<210> 31633
<211> 126
<212> PRT
<213> A.fumigatus

<400> 31633
Val Thr Ala Ser Gln Leu Ile Asn Phe Ser Val Val Thr Phe Thr Tyr
1 5 10 15
Thr Arg Phe Arg Lys Ala Met Ile Ala Gln Gly Ile Pro Arg Glu Ser
20 25 30
Leu Pro Tyr Lys Ser Trp Trp Gln Pro Tyr Thr Ala Tyr Val Ala Leu
35 40 45
Val Ser Thr Thr Val Met Thr Phe Val Gly Gly Tyr Thr Val Phe Leu
50 55 60
Pro Gly Asn Trp Asp Ile Pro Thr Phe Leu Phe Ser Tyr Thr Met Ile
65 70 75 80
Gly Val Phe Pro Val Leu Tyr Phe Gly Trp Lys Ile Val His Arg Thr
85 90 95
Gln Val Lys Lys Pro Glu Glu Val Asp Leu Leu Thr Gly Leu Asp Glu
100 105 110
Ile Asp Glu Tyr Glu Arg His Tyr Val Pro Glu Lys Pro Arg
115 120 125

<210> 31634
<211> 105
<212> PRT
<213> A.fumigatus

<400> 31634
Ser Val Leu Asn Thr Gly Cys Leu Leu Gly Leu Ala Glu Met Val Ile
1 5 10 15
Tyr Leu Pro Ile Ser Ser Pro Phe Ile Arg Phe Ala Gly Arg Tyr Val
20 25 30
Asp Glu Ala Phe Gly Val Ala Ala Gly Tyr Asn Phe Phe Val Phe Glu
35 40 45
Ala Ala Leu Val Pro Phe Glu Ile Thr Ala Cys Asn Met Ile Ile Asn
50 55 60
Tyr Trp Ser Asp Val Ile Pro Val Ser Gly Val Ile Val Ile Val Leu
65 70 75 80
Val Leu Tyr Met Tyr Val Thr Ser Ser Glu Arg Gln Lys Ala Leu Pro
85 90 95
Ile Trp Ser Arg Leu Asn Ile Asp Phe
100 105

<210> 31635
<211> 273
<212> PRT
<213> A.fumigatus

<400> 31635
Ile Asp Arg Leu Leu Asn Val Phe Ala Val Gln Trp Tyr Gly Glu Ser
1 5 10 15
Glu Phe Trp Leu Ala Leu Ser Lys Val Leu Leu Ser Ile Gly Leu Ile

```
            20                  25                  30
Leu Phe Thr Phe Ile Val Met Leu Gly Gly Asn Pro Lys Gly Asp Arg
        35                  40                  45
Phe Gly Phe Arg Tyr Trp Asn Glu Pro Gly Ala Phe Ala Glu Tyr Tyr
    50                  55                  60
Lys Thr Gly Asp Leu Gly Arg Trp Leu Gly Phe Leu Ala Cys Leu Ile
65                  70                  75                  80
Gln Ala Ser Phe Thr Ile Ala Gly Pro Asp Tyr Val Ser Met Ala Ala
                85                  90                  95
Gly Glu Ala Ala Asn Pro Arg Gly Val Leu Pro Arg Thr Tyr Asn Val
            100                 105                 110
Ile Leu Tyr Arg Leu Thr Ala Phe Phe Leu Leu Gly Val Leu Cys Ile
        115                 120                 125
Gly Ile Leu Val Pro Tyr Asn Asp Arg Thr Leu Ala Glu Ala Phe Ala
    130                 135                 140
Lys Gly Leu Pro Gly Ala Ala Ala Ser Pro Tyr Val Val Ala Met Asp
145                 150                 155                 160
Arg Leu Gly Ile Leu Ile Leu Pro His Ile Val Asp Ala Met Leu Leu
                165                 170                 175
Leu Ala Ala Phe Ser Ala Gly Asn Ser Tyr Val Tyr Cys Ala Ser Arg
            180                 185                 190
Ser Phe Tyr Gly Leu Val Val Val Gly Lys Ala Pro Arg Leu Phe Thr
        195                 200                 205
Lys Cys Thr Lys Arg Gly Val Pro Ile Tyr Cys Val Thr Val Val Met
    210                 215                 220
Leu Ile Ala Leu Leu Ala Phe Leu Gln Val Ser Asn Ser Ala Ser Val
225                 230                 235                 240
Val Leu Asp Trp Phe Val Asn Leu Val Arg Ala Asp Ser Glu Thr Ser
                245                 250                 255
Ile Thr Leu Thr Ser Ile Ser Lys Lys Thr Lys Ser Leu Thr Val Gly
            260                 265                 270
Arg
```

<210> 31636
<211> 120
<212> PRT
<213> A.fumigatus

<400> 31636

```
Ile Met Ser Arg Pro Asp Pro Asp Thr Ser Val His Gln Thr Ser Leu
1               5                   10                  15
Pro Thr Ala Ile Ser Ser Asp Arg Ser Ser His Leu Ala Asp Asp Phe
            20                  25                  30
Asn Leu Ala Thr Ala Asn Leu Thr Lys Arg Asn Gly Cys Pro Ile Thr
        35                  40                  45
Tyr Ser Glu Lys Ala Thr Val Val Glu Asp Gly Glu Glu Ser Ile Gly
    50                  55                  60
Gly Thr Leu Ser Lys Pro Thr Phe Asp His Thr His Arg Lys Leu Lys
65                  70                  75                  80
Pro Arg His Ile Gln Leu Ile Gly Ile Gly Gly Thr Ile Gly Thr Ala
                85                  90                  95
Leu Tyr Val Gln Val Gly Lys Ser Leu Met Lys Gly Gly Pro Gly Ser
            100                 105                 110
Leu Phe Leu Ala Phe Ser Ile Trp
        115                 120
```

<210> 31637
<211> 142
<212> PRT
<213> A.fumigatus

<400> 31637
Val Ser Leu Tyr Ser Ala Pro Val Ser Trp His Ser Ala Leu Tyr Thr
1 5 10 15
Pro Pro Met His Ser Thr Arg Gln Ile Tyr Leu Pro Thr Glu Ile Val
20 25 30
Val Gln Ile Val Arg Phe Val Ala Thr Asp Glu Ala His Arg Gln Glu
35 40 45
Ala Leu Tyr Ala Cys Cys Leu Val Ser Arg Gln Trp Tyr Ser Ala Ala
50 55 60
Val Ser Leu Leu Tyr Glu Lys Pro Arg Leu His Ile Gly Asn Ser Phe
65 70 75 80
Gln Gln Phe Val Ser Thr Cys Ser Gly Val Gly Gly Arg Arg Asn Lys
85 90 95
Leu Asn Leu Gly Ser Phe Val Arg Arg Leu Asp Leu Ser Arg Leu Val
100 105 110
His His Ser Ser Asn Ser Val Thr Ala Arg Leu Leu Gly Arg Val Lys
115 120 125
Glu Asn Leu Glu Val Phe Val Ala Pro Arg Val Ser Phe Ala
130 135 140

<210> 31638
<211> 266
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (200),(255),(256),(263),(264)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31638
Pro Ser Ile Asp Gly Val Leu Leu Arg Ser Ser Lys Pro Ile Pro Gly
1 5 10 15
Ala Ala Glu Ser Leu Ala Leu Leu Lys Asp Gln Gly Ile Pro Phe Ile
20 25 30
Leu Leu Thr Asn Gly Gly Gly Lys His Glu Thr Glu Arg Val Ala Glu
35 40 45
Ile Ser Glu Lys Leu Lys Val Pro Leu Asp Ala Ser Val Ile Ile Gln
50 55 60
Ser His Ser Pro Phe Ala Glu Leu Val Lys Gly Pro Asp Glu His Ser
65 70 75 80
Ser Leu Glu Asp Lys Arg Val Leu Val Val Gly Gly Asp Gly Asp Gly
85 90 95
Cys Arg Arg Val Ala Glu Gln Tyr Gly Phe Lys Asn Val Leu Thr Pro
100 105 110
Gly Asp Ile Phe Met Ala Asn Pro Ser Ile Trp Pro Phe Ser Lys Gly
115 120 125
Phe Lys Asp Tyr Tyr Glu Lys Phe Ala Arg Pro Ile Pro Asn Pro Leu
130 135 140
Asp Pro Arg Asp Pro Thr Arg Arg Leu Lys Ile Asp Ala Ile Phe Val

145 150 155 160
Phe Asn Asp Ser Arg Asp Trp Gly Leu Asp Ala His Leu Ile Ile Asp
165 170 175
Leu Leu Leu Ser Ser Gln Gly Val Leu Gly Thr Ile Ser Asp Lys Asn
180 185 190
Gly Arg Ala Asp Leu Pro Asn Xaa Gly Phe Leu Gln Asp Gly Gln Pro
195 200 205
His Leu Tyr Phe Ser Asn Pro His Leu Trp Trp Ala Ala Ala Tyr His
210 215 220
Leu Pro Arg Leu Gly Gln Gly Gly Phe Arg Glu Ala Leu Glu Ser Asn
225 230 235 240
Cys Gly Ala Asn Tyr Arg Arg Ala Ile Lys Cys Val Lys Leu Xaa Xaa
245 250 255
Lys Ile Phe Gly Asn His Xaa Xaa Glu Leu
260 265

<210> 31639
<211> 95
<212> PRT
<213> A.fumigatus

<400> 31639
Ile Ser Asn Ile Phe Arg Ser Asp His Gln Ala Ile Gln Ala Ser Gln
1 5 10 15
Ala Met Ser Glu Arg Gly Ser Phe Arg Gly Gly Arg Ser Arg Gly Gly
20 25 30
Gly His Asp Arg Ser Gly Gly Arg Gly Gly Gly His Ser Ser Gln His
35 40 45
Arg Gly Gly Gly Ala Gly Gly Gly Ala Gln Gln Gln Gln Glu Lys Pro
50 55 60
Lys Lys Glu Asn Ile Leu Asp Leu Ser Lys Tyr Met Asp Lys Glu Val
65 70 75 80
Lys Val Lys Phe Asn Gly Gly Arg Glu Gly Glu Phe Val Thr Asn
85 90 95

<210> 31640
<211> 86
<212> PRT
<213> A.fumigatus

<400> 31640
Ser Leu Met Glu Asp Glu Arg Val Ser Leu Ser Pro Thr Asp Cys Ala
1 5 10 15
Ser Cys Leu Leu Lys Ser Ile Leu Val Ser Gly Met Leu Lys Gly Tyr
20 25 30
Asp Gln Leu Met Asn Leu Val Leu Asp Asp Val Lys Glu Ser Met Arg
35 40 45
Gly Lys Ser Leu Asn Asp Ile Thr Lys Leu Asp Glu Val Ser Asn Ser
50 55 60
Ala Ile Gln Met Met Lys Glu Met Lys Leu Pro Ala Pro Leu Val Ser
65 70 75 80
Ser Ser Pro Ala Ala Leu
85

<210> 31641
<211> 140

<212> PRT
<213> A.fumigatus

<400> 31641
Gln Ile Cys Phe Cys Ser Asp Ala Tyr Arg Asn Glu Asp Tyr Asp Arg
1 5 10 15
Lys Ile Leu Glu Glu Met Gly Glu Leu Gly Leu Leu Gly Ala Ser Ile
20 25 30
Glu Gly Tyr Gly Cys Ala Gly Ala Ser Thr Val Ala Ser Gly Leu Ile
35 40 45
Thr Lys Glu Val Glu Arg Val Asp Ser Gly Tyr Arg Ser Gly Met Ser
50 55 60
Val Gln Ser Ser Leu Ala Met Thr Gly Ile Asn Glu Phe Gly Thr Gln
65 70 75 80
Glu Gln Lys Asp Arg Phe Leu Pro Gln Leu Ala Lys Gly Lys Leu Ala
85 90 95
Gly Cys Phe Gly Leu Thr Glu Pro Asn His Gly Ser Asp Pro Gly Ser
100 105 110
Met Glu Thr Thr Ala Arg Glu His Pro Thr Lys Lys Gly Tyr Tyr Leu
115 120 125
Ser Ser Ser Arg Arg Trp Gln Asp Pro Arg Leu Gly
130 135 140

<210> 31642
<211> 140
<212> PRT
<213> A.fumigatus

<400> 31642
Asn Arg Tyr Ser Val Leu Ile Cys Phe Gly Leu Leu His Ser Pro Ser
1 5 10 15
Leu Leu Ser Arg Cys Phe Leu Ser Phe Leu Ser Val Met Asn Arg Ser
20 25 30
Ile Phe Arg Ala Ala Ser Arg His Leu Arg Ser Ala Asn Arg Leu Tyr
35 40 45
Lys Ala Pro Val Val Ser His Asn Thr Ser Val Arg Ala Tyr Ser Thr
50 55 60
Val Phe Asn Trp Glu Asp Pro Leu Ala Ala Ser Glu Leu Tyr Thr Asp
65 70 75 80
Glu Glu Leu Ala Ile Arg Asp Thr Ala Arg Gln Tyr Cys Gln Glu Arg
85 90 95
Leu Leu Pro Arg Val Leu Gly Lys Pro Tyr Phe Gly Thr Ile Cys Glu
100 105 110
Asn Ser Ala Asp Arg Phe Ala Phe Val Gln Met Pro Ile Glu Thr Lys
115 120 125
Thr Met Thr Val Lys Ser Trp Arg Lys Trp Gly Ser
130 135 140

<210> 31643
<211> 72
<212> PRT
<213> A.fumigatus

<400> 31643
Phe Arg Arg Arg Asp Asp Tyr Pro Gly Ser Ser Arg Arg Phe Thr Thr
1 5 10 15

```
Tyr Tyr Asp Met Leu Ser Glu Asn Arg Val Ala Arg Tyr Ser Thr Arg
            20                  25                  30
His Ser Gly Ser Gly Trp Leu Asp Arg Met Val Phe Gln Met His Trp
        35                  40                  45
Asp Leu Asp Phe Thr Gly Val Ser Phe Thr Glu Phe Leu Asp Met Gly
    50                  55                  60
Phe Thr Met Val Val Thr Arg Phe
65                  70
```

<210> 31644
<211> 191
<212> PRT
<213> A.fumigatus

<400> 31644

```
Gln Ala Ile Gln Ala Ala Gly Ala Thr Ser Leu Leu Phe Val Tyr Ser
1               5                   10                  15
Leu Asp Tyr Ala Arg Thr Arg Leu Ala Asn Asp Ala Lys Ser Ala Lys
            20                  25                  30
Gly Gly Gly Glu Arg Gln Phe Asn Gly Leu Ile Asp Val Tyr Arg Lys
        35                  40                  45
Thr Leu Ala Ser Asp Gly Ile Ala Gly Leu Tyr Arg Gly Phe Gly Pro
    50                  55                  60
Ser Val Leu Gly Ile Val Val Tyr Arg Gly Leu Tyr Phe Gly Met Tyr
65                  70                  75                  80
Asp Ser Ile Lys Pro Val Val Leu Val Gly Ser Leu Glu Gly Ser Phe
                85                  90                  95
Leu Ala Ser Phe Leu Leu Gly Trp Thr Val Thr Thr Gly Ala Gly Ile
            100                 105                 110
Ala Ser Tyr Pro Leu Asp Thr Ile Arg Arg Arg Met Met Met Thr Ser
        115                 120                 125
Gly Glu Ala Val Lys Tyr Lys Ser Ser Leu Asp Ala Ala Arg Gln Ile
    130                 135                 140
Ile Ala Lys Glu Gly Val Lys Ser Leu Phe Lys Gly Ala Gly Ala Asn
145                 150                 155                 160
Ile Leu Arg Gly Val Ala Gly Ala Gly Val Leu Ser Ile Tyr Asp Gln
                165                 170                 175
Val Gln Leu Ile Leu Phe Gly Lys Lys Phe Lys Gly Gly Ser Gly
            180                 185                 190
```

<210> 31645
<211> 291
<212> PRT
<213> A.fumigatus

<400> 31645

```
Arg Arg Ser Ala Leu Leu Ser Ile Asn Thr Arg Asn Ser Ser Pro Val
1               5                   10                  15
Glu Ile Ala Gly Ile Leu Asp Tyr Asn Thr His Leu Asn Met Thr Thr
            20                  25                  30
Thr Ala Pro Pro Asp Ala Thr Ala Pro Ser Thr Ser Ser Glu Gln Asp
        35                  40                  45
Glu Pro Ala Pro Ser Glu Thr Ala Ser Val Ser Ala Thr Ala Thr Ala
    50                  55                  60
Leu Pro Tyr Ser Pro Val His Ala Thr Ala Gln Ala Gln Pro Gly Gly
65                  70                  75                  80
```

```
Thr Thr Val Met Pro Ala Arg Ser Gly Ser Asp Gly Pro Pro Leu Pro
                85                  90                  95
Thr Pro Thr Lys Ser Ile Ala Thr Pro Ala Thr Lys Thr Ser Thr Ser
            100                 105                 110
Pro Pro Pro Pro Gln Pro Gly Ala Arg Pro Asp Pro Gly Ile Pro Ala
        115                 120                 125
Pro Thr Thr Leu Pro Val Leu Ala Ala Ser Ser Ala Pro Ala Pro Val
    130                 135                 140
Pro Ser Pro Gly Pro Ala Pro Gln Ala Gln Pro Glu Pro Pro Pro Thr
145                 150                 155                 160
Pro Ser Ala Thr Ala Thr Gly Ala Thr Thr Thr Thr Thr Pro Ala Asn
                165                 170                 175
Pro Met Pro Gly His Gly Tyr Gly Tyr Ser Pro Ala Ala Gly Arg Tyr
            180                 185                 190
Ser Ser Glu Phe Thr His Pro Ala Gln Gly Gln Gln Phe His Pro Arg
        195                 200                 205
Ala His Pro His Ala Gln Pro His Pro Asn Ser Thr Ser Thr Pro Tyr
    210                 215                 220
Ala Ser Leu Tyr Gln Pro Pro Asp Thr Ser Ser Gln Leu Pro Leu Tyr
225                 230                 235                 240
Gln Thr Gln Gly Pro Gly Ala Asp Glu Phe Asp Ser Ala His Gly Asp
                245                 250                 255
Gly Gly Phe Leu Ala Ser Ala Lys Ser Trp Met Ala Ser Ala Gly Thr
            260                 265                 270
Lys Leu Ala Glu Val Glu Ala Glu Val Trp Lys Arg Ile Asn Glu Ala
        275                 280                 285
His Asp Lys
    290
```

<210> 31646
<211> 405
<212> PRT
<213> A.fumigatus

<400> 31646

```
Arg Pro Ala Phe Leu Gly Ser Asn Val Val Tyr Asp Cys Pro Asn Ser
1               5                   10                  15
Lys Leu Met Glu Gln Lys Lys Phe Ile Lys Tyr Gly Leu Thr Gln Ser
            20                  25                  30
Ala Leu Glu Ser His Val Pro Leu Ile Glu Lys Glu Val Leu Asp Tyr
        35                  40                  45
Leu Arg Asp Ser Pro Asn Phe Gln Gly Ser Ser Gly Arg Met Asp Ile
    50                  55                  60
Ser Ala Ala Met Ala Glu Ile Thr Ile Phe Thr Ala Ala Arg Ala Leu
65                  70                  75                  80
Gln Gly Gln Glu Val Arg Ser Lys Leu Thr Ala Glu Phe Ala Asp Leu
                85                  90                  95
Tyr His Asp Leu Asp Lys Gly Phe Thr Pro Ile Asn Phe Met Leu Pro
            100                 105                 110
Trp Ala Pro Leu Pro His Asn Lys Lys Arg Asp Ala Ala His Ala Arg
        115                 120                 125
Met Arg Ser Ile Tyr Val Asp Ile Ile Asn Gln Arg Arg Leu Asp Gly
    130                 135                 140
Asp Lys Asp Ser Gln Lys Ser Asp Met Ile Trp Asn Leu Met Asn Cys
145                 150                 155                 160
Thr Tyr Lys Asn Gly Gln Gln Val Pro Asp Lys Glu Ile Ala His Met
```

```
                165                 170                 175
Met Ile Thr Leu Leu Met Ala Gly Gln His Ser Ser Ser Ser Ile Ser
            180                 185                 190
Ala Trp Ile Met Leu Arg Leu Ala Ser Gln Pro Lys Val Leu Glu Glu
        195                 200                 205
Leu Tyr Gln Glu Gln Leu Ala Asn Leu Gly Pro Ala Gly Pro Asp Gly
    210                 215                 220
Ser Leu Pro Pro Leu Gln Tyr Lys Asp Leu Asp Lys Leu Pro Phe His
225                 230                 235                 240
Gln His Val Ile Arg Glu Thr Leu Arg Ile His Ser Ser Ile His Ser
                245                 250                 255
Ile Met Arg Lys Val Lys Ser Pro Leu Pro Val Pro Gly Thr Pro Tyr
            260                 265                 270
Met Ile Pro Pro Gly Arg Val Leu Leu Ala Ser Pro Gly Val Thr Ala
        275                 280                 285
Leu Ser Asp Glu His Phe Pro Asn Ala Gly Cys Trp Asp Pro His Arg
    290                 295                 300
Trp Glu Asn Gln Ala Thr Lys Glu Gln Glu Asn Asp Glu Val Val Asp
305                 310                 315                 320
Tyr Gly Tyr Gly Ala Val Ser Lys Gly Thr Ser Ser Pro Tyr Leu Pro
                325                 330                 335
Phe Gly Ala Gly Arg His Arg Cys Ile Gly Glu Lys Phe Ala Tyr Val
            340                 345                 350
Asn Leu Gly Val Ile Leu Ala Thr Ile Val Arg His Leu Arg Leu Phe
        355                 360                 365
Asn Val Asp Gly Lys Lys Gly Val Pro Glu Thr Asp Tyr Ser Ser Leu
    370                 375                 380
Phe Ser Gly Pro Met Lys Pro Ser Ile Ile Gly Trp Glu Lys Arg Ser
385                 390                 395                 400
Lys Asn Thr Ser Lys
                405
```

<210> 31647
<211> 351
<212> PRT
<213> A.fumigatus

<400> 31647

```
Ser Thr Pro Thr Gly Pro Pro Met Asn Pro Asn Pro Gly Thr Met Ser
1               5                   10                  15
Pro Val Ser Val Asp Gly Ser Asp Trp Ser Gly Ile Asn Gln Tyr Gln
            20                  25                  30
Lys Ser Asp Pro Pro Phe Ser Pro Thr Ser Ser Thr Arg Asn Asn Leu
        35                  40                  45
Ala Thr Pro Pro Thr Ser Gly Thr Pro Ser Gly Leu Gly Pro Asn Asn
    50                  55                  60
Ala Gly Ala Pro Asn Gly Ser Thr Asn Gly Val Ser Asp Pro Gly Asn
65                  70                  75                  80
Pro Ser Pro Pro Ser Ser Val Ala Ala Arg Ser Ser Ser Gly Thr Leu
                85                  90                  95
Ala Glu Asp Arg Ser Lys Arg Thr Lys Gln Met Glu Glu Val Leu Gly
            100                 105                 110
Gln His Tyr Phe Ala Leu Arg Arg Phe Leu Asn Ala Ser Tyr Arg Asp
        115                 120                 125
Glu Arg Ala Asn Ser Lys Ser Asn Lys Ala Arg Asp Lys Leu Leu Arg
    130                 135                 140
```

```
Leu Ser Ala Thr Gln Phe Gln Glu Leu Ser Thr Asp Val Tyr Asp Glu
145                 150                 155                 160
Leu Leu Arg Arg Gln Gln Ala Met Pro Ser Pro Gly Arg Pro Gly Pro
                165                 170                 175
Pro Arg Pro Asp Val Pro Pro Phe Leu Pro Pro Arg Glu Asp Phe His
            180                 185                 190
Glu Lys Arg Asn Gln Ala Arg Gln Lys Leu Ala Ser Leu Gln His Gln
        195                 200                 205
Arg Phe Arg Asp Leu Ala Thr Asp Val Phe Cys Glu Leu Glu Arg Arg
    210                 215                 220
Phe Pro Gln Phe Pro Ala Arg Glu Ser Arg Arg Ala Ser Pro Ala Pro
225                 230                 235                 240
Ser Leu Arg Gly Arg Pro Ser Asn Gly Tyr Pro Pro Asn Gly Phe Gly
                245                 250                 255
Pro Asn Gly Tyr Pro Pro Pro Pro Gly Ser Arg Arg Ser Gln Ser Arg
            260                 265                 270
Gly Pro Pro Asn Arg Met Gly Arg Gly Tyr Pro Ser Gly Gly Pro Pro
        275                 280                 285
Gly Ser Pro Met Gly Gly Tyr Pro Pro Arg Gln Gly Ser Leu Gly Gly
    290                 295                 300
Pro Pro Ser Val Asn Gly Asp Val Gly Pro Gln Ala Lys Ser Phe Gln
305                 310                 315                 320
Ser Asn Thr Ile Val Pro Asn Lys Ser Ile Met Val Glu Asp Asp Asp
                325                 330                 335
Asp Leu His His Glu Ala Ala Gly Ile Arg Ala Lys Asn Gly Gly
            340                 345                 350
```

<210> 31648
<211> 94
<212> PRT
<213> A.fumigatus

```
<400> 31648
Leu Arg Thr Ser Ser Ala Asn Trp Asn Asp Ala Ser Pro Ser Phe Arg
1                 5                  10                  15
His Gly Asn Leu Ala Glu Pro Ala Pro Pro Pro Ala Cys Val Asp Ala
            20                  25                  30
His Gln Met Ala Thr Leu Gln Met Val Ser Val Leu Thr Val Ile Leu
        35                  40                  45
Arg Leu Pro Ala Val Gly Ala Leu Ser Leu Glu Ala Leu Gln Thr Ala
    50                  55                  60
Trp Glu Gly Ala Ile Pro Pro Ala Val Leu Gln Ala Val Gln Trp Val
65                  70                  75                  80
Gly Ile Leu Pro Ala Lys Gly Pro Trp Ala Gly Arg Arg Arg
                85                  90
```

<210> 31649
<211> 245
<212> PRT
<213> A.fumigatus

```
<400> 31649
Val Val Val Asp Asp Lys Arg Asp Leu Leu Asn Val Asp Thr Thr Ser
1                 5                  10                  15
Pro Asn Val Gly Arg Asp Glu Asp Thr Arg Val Ala Leu Ala Glu Val
            20                  25                  30
```

```
Leu His Asp Thr Val Thr Leu Leu Leu Gly His Phe Ala Val His Ala
        35                  40                  45
Gly Tyr Cys Glu Val Gly Phe Ala His Leu Ile Ser Lys Pro Val Asp
    50                  55                  60
Leu Pro Ala Gly Val Ala Glu Asp His Gly Leu Arg Asp Gly Gln Gly
65                  70                  75                  80
Ile Val Glu Val Ala Lys Gly Ile Glu Leu Pro Leu Phe Phe Leu Asn
                85                  90                  95
Ser Asp Glu Val Leu Phe Asp Ala Phe Gln Gly Gln Leu Val Thr Leu
            100                 105                 110
Asp Gln Asn Ala Asp Gly Val Ser His Glu Phe Arg Arg His Val Gln
        115                 120                 125
Asp Val Ile Gly Glu Ser Gly Gly Asn Asp Asn Asp Leu Cys Ser Gly
    130                 135                 140
Arg Glu Val Ala Val Asp Val Val Asp Leu Phe Thr Lys Thr Ala Val
145                 150                 155                 160
Gln Lys Phe Val Ser Leu Ile Lys Asn Gln His Leu Asp Met Pro Gly
                165                 170                 175
Ala Gln Val Ala Ser Thr Asp His Val Arg Asn Ser Thr Arg Cys Thr
            180                 185                 190
Arg Asn Asn Val Leu Ala Ile Val Gln Leu Ser Asn Val Leu Ala Asn
        195                 200                 205
Ile Cys Ala Ser Asn Ala Ser Val Ala Leu Tyr Ile His Val Ile Ser
    210                 215                 220
Gln Gly His Asn Asp Arg Leu Asn Leu Ser Arg Lys Phe Ala Ser Arg
225                 230                 235                 240
Arg Lys Asp Gln Ser
                245
```

<210> 31650
<211> 174
<212> PRT
<213> A.fumigatus

<400> 31650

```
Ala Leu Arg Arg Val Leu Ser Arg Asp Ser Ser Ser Gly Thr Arg Ala
1               5                   10                  15
Ala Asn Ser Ser Cys Ala His Lys Leu Ser His Leu Gln Thr Lys Ile
            20                  25                  30
Ser Gln Ala Asp Arg Ile Leu Tyr Lys Leu Pro Gly Thr Asp Lys Met
        35                  40                  45
Ala Asp Gly Ile Asp Arg Arg Thr Asp Gly Met Arg Ile Met Glu Leu
    50                  55                  60
Phe Glu Glu Ile Trp Ala Asn Gly Ala Asn Ser Asp Arg Leu Glu Phe
65                  70                  75                  80
Ser Thr Ser Lys Glu Val Thr Val Ala Pro Thr Phe Glu Asp Met His
                85                  90                  95
Leu Lys Glu Ser Leu Leu Arg Gly Ile Tyr Ala Tyr Gly Tyr Glu Ser
            100                 105                 110
Pro Ser Ala Val Gln Ser Arg Ala Ile Val Gln Ile Cys Lys Gly Arg
        115                 120                 125
Asp Thr Ile Ala Gln Ala Gln Ser Gly Thr Gly Lys Thr Ala Thr Phe
    130                 135                 140
Ser Ile Ser Ile Leu Gln Val Ile Asp Thr Val Val Arg Glu Thr Gln
145                 150                 155                 160
Gly Met Ser Leu Asn Thr Pro Pro Val Leu Val Lys Arg Ser
```

165 170

<210> 31651
<211> 286
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (285)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31651
Leu Val Ser Ala Leu Val Leu Ser Pro Thr Arg Glu Leu Ala Thr Gln
1 5 10 15
Ile Gln Ser Val Ile Met Ala Leu Gly Asp Tyr Met Asn Val Gln Cys
20 25 30
His Ala Cys Ile Gly Gly Thr Asn Ile Gly Glu Asp Ile Arg Lys Leu
35 40 45
Asp Tyr Gly Gln His Val Val Ser Gly Thr Pro Gly Arg Val Ala Asp
50 55 60
Met Ile Arg Arg Arg His Leu Arg Thr Arg His Ile Lys Met Leu Val
65 70 75 80
Leu Asp Glu Ala Asp Glu Leu Leu Asn Arg Gly Phe Arg Glu Gln Ile
85 90 95
Tyr Asp Val Tyr Arg Tyr Leu Pro Pro Ala Thr Gln Val Val Val Val
100 105 110
Ser Ala Thr Leu Pro Tyr Asp Val Leu Asp Met Thr Thr Lys Phe Met
115 120 125
Thr Asp Pro Val Arg Val Leu Val Lys Arg Asp Glu Leu Thr Leu Glu
130 135 140
Gly Ile Lys Gln Tyr Phe Ile Ala Val Glu Lys Glu Glu Trp Lys Phe
145 150 155 160
Asp Thr Leu Cys Asp Leu Tyr Asp Thr Leu Thr Ile Thr Gln Ala Val
165 170 175
Ile Phe Cys Asn Thr Arg Arg Lys Val Asp Trp Leu Thr Asp Lys Met
180 185 190
Arg Glu Ala Asn Phe Thr Val Ser Ser Met His Gly Glu Met Pro Gln
195 200 205
Lys Glu Arg Asp Ser Ile Met Gln Asp Phe Arg Gln Gly Asn Ser Arg
210 215 220
Val Leu Ile Ser Thr Asp Val Trp Ala Arg Gly Ile Asp Val Gln Gln
225 230 235 240
Val Ser Leu Val Ile Asn Tyr Asp Leu Pro Thr Asn Arg Glu Asn Tyr
245 250 255
Ile His Arg Ile Gly Arg Ser Gly Arg Phe Gly Arg Lys Gly Val Ala
260 265 270
Ile Asn Phe Val Thr Ser Val Phe Val Arg Met Leu Xaa Asp
275 280 285

<210> 31652
<211> 133
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (19),(37)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31652
Cys Ser Lys Cys Asn Thr Ser Ala Ala Thr Pro Thr Thr Ser Arg Lys
1 5 10 15
Gln His Xaa Ser Val Glu Pro Ser Ser Thr Ser Leu Gln Ser Thr Ser
20 25 30
Ala Ala Ala Arg Xaa Cys Pro Ser Thr Pro Ser Asp Thr Lys Pro Ala
35 40 45
Pro Ala Thr Val Ala Ala Gly Ser Ala Thr Arg Pro Ala Ala Pro Pro
50 55 60
Ala Ala Thr Ala Ala Thr Ala Ala Ala Ala Pro Ala Thr Ala Ile Thr
65 70 75 80
Thr Gly Ala Thr Ala Arg Pro Ala Ala Thr Asn Asp Pro Ser Gly Ser
85 90 95
Ser Asn Glu Gly Pro Ala Asp Ser Glu Ser Ser Arg His Asn Asp Ala
100 105 110
Ala Glu Asp Gly His Glu Arg His Phe Asp Ser Gly Leu Ala His Phe
115 120 125
Cys Gly Ala Leu Glu
130

<210> 31653
<211> 268
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (115),(133)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31653
Arg Leu Leu Asn Lys Pro Gln Cys Lys Arg Ile Arg Gly Met Arg Pro
1 5 10 15
Val Asn Val Gln Met His Leu Gln Gln Met Leu His Gly His Gln Asn
20 25 30
Ile Gln Gln Gln Gln Gln Gln Phe Phe Val Met Gln Gln Ala Gln Gln
35 40 45
Ala Leu Gln Ala His Gln Ala Gln Gln Ala Gln Gln Ala Gln Gln Asp
50 55 60
Gln Gln Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Gln Pro Gly Gln
65 70 75 80
His Thr Pro Gln Gln Arg His Ala Ala His Pro Gln Asn Met His Asp
85 90 95
Ala Gln Ser Val Thr Pro Gln Pro Gln Pro Pro Pro His Gln Gly Ser
100 105 110
Ser Thr Xaa Gln Ser Asn His Pro Gln Pro Pro Ser Ser Gln Pro Gln
115 120 125
Gln Gln Pro Gly Xaa Ala Pro Gln Pro His Leu Thr Pro Asn Pro Pro
130 135 140
Pro Gln Gln Leu Pro Gln Ala Gln Gln Pro Gly Gln Gln Pro His Gln
145 150 155 160
Gln Pro Gln Gln Pro Pro Gln Gln Gln Pro Gln Gln Gln Gln Ser Gln

```
                165                 170                 175
Gln Gly Gln Pro Gln Gly Gln Gln Gln Met Thr Pro Gln Glu Ala
            180                 185                 190
Gln Met Lys Ala Gln Gln Thr Gln Asn Gln Ala Ala Ile Met Met Gln
        195                 200                 205
Gln Arg Met Gly Met Lys Gly Thr Ser Ile Leu Ala Leu Leu Thr Phe
    210                 215                 220
Ala Glu His Leu Ser Asn Phe Thr Val Arg Arg Thr Leu Ser Gln His
225                 230                 235                 240
Ala Asn Ala Tyr Arg Asp Cys Ala Asn Leu Ile Thr Glu Pro Arg Arg
                245                 250                 255
Gly Ser Gly Phe Ala Val Leu Ala Ser Ile Cys Arg
            260                 265
```

<210> 31654
<211> 129
<212> PRT
<213> A.fumigatus

<400> 31654

```
Gln Ser Arg Gly Glu Ala Gln Asp Leu Leu Tyr Trp Gln Ala Phe Val
1               5                   10                  15
Asp Lys Phe Tyr Ser Pro Val Gly Val Leu Arg Gln Gly Val Tyr Asn
            20                  25                  30
Pro Gln Ala Gly Ser Lys Gln Phe Glu Ile Ser Thr Pro Ala Leu Ala
        35                  40                  45
Arg Tyr Tyr Leu Thr Gln Phe Thr Ser Gly Ile Arg Gln Ile Gln Met
    50                  55                  60
Leu Val Glu Gly Ala Arg Glu Arg Asp Ser Pro Asn Gly Gly Arg Ile
65                  70                  75                  80
Val Glu Ser Arg Arg Thr Ser Phe Ile Tyr Trp Phe Thr Asn Glu Ser
                85                  90                  95
Gln Val Arg Leu Leu Phe Val Arg Leu Asp Val Arg His Phe Ala Asn
            100                 105                 110
Phe Pro Lys Ala Ile His Gln Arg Asp Thr Tyr Arg Ser Leu Arg Ser
        115                 120                 125
Gln
```

<210> 31655
<211> 179
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (89),(107)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31655

```
Ala Arg Pro Glu Ser Lys Cys Leu Ser Cys Pro Ser Ser Ala Ala Ser
1               5                   10                  15
Leu Trp Arg Leu Asp Ser Glu Ser Ala Gly Pro Ser Phe Glu Leu Pro
            20                  25                  30
Glu Gly Ser Phe Val Ala Ala Gly Leu Ala Val Ala Pro Val Val Ile
        35                  40                  45
```

```
Ala Val Ala Gly Ala Ala Ala Ala Val Ala Ala Val Ala Ala Gly Gly
    50                  55                  60
Ala Ala Gly Arg Val Ala Glu Pro Ala Ala Thr Val Ala Gly Ala Gly
65                  70                  75                  80
Leu Val Ser Asp Gly Val Glu Gly Xaa His Leu Ala Ala Ala Glu Val
                85                  90                  95
Asp Trp Arg Glu Val Glu Asp Gly Ser Thr Xaa Gly Cys Cys Phe Leu
            100                 105                 110
Asp Val Val Gly Val Ala Ala Glu Val Leu His Phe Glu His His Ala
        115                 120                 125
Tyr Ser Gly Asp Val Leu His Asp Ala Ala Ala Val Tyr Ala Asp Pro
    130                 135                 140
Val Ala Pro Arg Leu Gln Arg Arg Pro Leu Arg Leu Val Asp Leu Ala
145                 150                 155                 160
Gly Leu Val Gly Leu Ala Ala Pro Asp Val Pro Val Ala Leu Val Gly
                165                 170                 175
Pro Ala Ala
```

<210> 31656
<211> 98
<212> PRT
<213> A.fumigatus

<400> 31656

```
Leu Leu Leu Gly Asp Lys Gln Pro Ala Asp Arg Ile Ser Thr Asn Ser
1               5                   10                  15
Gly Phe Thr Ala Ser Tyr Ala Ile Ile Ile Ile Gln Ile Thr Gly Gln
            20                  25                  30
Asn Ser Ala Asp Leu Leu Val Tyr Ile Ile His Ser Ile Thr Gln Lys
        35                  40                  45
Ser Pro Phe Ser Asp Tyr Ile Ile Pro Ala Ser Met Leu Gly Met Pro
    50                  55                  60
Glu Gln Gly Asn Ile Cys Arg Cys Leu Leu Leu Gly Leu Ser Ile Thr
65                  70                  75                  80
Leu Thr Pro Val Gly Gln Cys Trp Arg Ala Asp Ala Pro Val Phe Thr
                85                  90                  95
Thr Glu
```

<210> 31657
<211> 83
<212> PRT
<213> A.fumigatus

<400> 31657

```
Asp Asp Pro Ser Gln Met Ala Ala Met Leu Ser Tyr Leu Gly Val Thr
1               5                   10                  15
Ser His Asp Ser Arg Met Leu Gly Ile Glu Asn Arg Asn Met Glu Gly
            20                  25                  30
Gln Ile Pro Leu Ile Pro Thr Phe Leu Gly Phe Ser Tyr Ala Leu Asp
        35                  40                  45
Glu His Thr Ile Glu Ile Asp Asp Glu Thr Leu Leu Asp Ser Asn Leu
    50                  55                  60
Val Tyr Gln Pro Pro Val Phe Pro Thr His Gly Cys Ser Thr Ser Gly
65                  70                  75                  80
```

Gln Thr Gly

<210> 31658
<211> 110
<212> PRT
<213> A.fumigatus

<400> 31658
Ala Val Leu Phe Ala Leu Cys Val Thr Arg Ser Val Ser Ala Thr Leu
1 5 10 15
Phe Val Asn Phe Thr Asn Tyr Ala Ala Glu Asp Cys Ala Ile Arg Tyr
20 25 30
Gly Ser Ser Met Leu Val Pro Thr Tyr Cys Val Asn Ile Glu Asp Phe
35 40 45
Pro Ile Lys Ser Tyr Gly Ala Ser Val Ser Ser Gly Glu Cys Asp Asp
50 55 60
Ser Ser Thr Ser Pro Val Leu Asn Val Phe Thr Glu Ala Gly Cys Asn
65 70 75 80
Thr Gly Leu Phe Asn Thr Val Ala Leu Ser Thr Glu Pro Ile Cys Ile
85 90 95
Asn Asp Glu Thr Thr Val Leu Ser Val Ser Val Ala Cys Val
100 105 110

<210> 31659
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31659
Asp Asp Cys Val Lys Cys Gln Arg Gly Leu Arg Leu Ser Leu Lys Leu
1 5 10 15
Trp Gly Ala Gly Leu Gln Ser Ser Phe Leu Thr Ala Gln Ser His Val
20 25 30
Tyr Ile Glu Ala Phe Lys Gln Tyr Pro Lys Asp Leu Gln Ser Arg Thr
35 40 45
Thr Asp Leu Asn Met Asp Thr Glu Phe Leu Pro Arg Leu
50 55 60

<210> 31660
<211> 138
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31660
Ile Ala Xaa Ile Asn Phe Phe Lys Asp Trp Gly Ile Ser Pro Ser Ala
1 5 10 15
Val Val Val Asn Ser Ser Gly Glu Val Ile Ala Ala Tyr Ala Ala Asn
20 25 30
Ala Leu Ser Leu Arg Thr Ala Ile Ile Phe Ala Tyr Leu Arg Gly Arg
35 40 45

```
Cys Val Ser Lys Val Tyr Leu Gln Ala Ala Trp Trp Pro Leu Gly Trp
    50                  55                  60
Met Lys Arg Leu Ser Ser Leu Phe Phe Pro Lys Gly Trp Leu Ser Arg
65                  70                  75                  80
Ala Ser Ile Ala Pro Arg Ala Leu Thr Ser Leu Gly Thr Arg Gln Gly
                85                  90                  95
Trp Pro Arg Trp Leu Thr Gly Ser Arg Arg Thr Ser Gln Lys Pro Leu
            100                 105                 110
Tyr Asp Ile Phe Gln Tyr Leu Trp Arg Thr Ile Arg Val Ser Leu Thr
        115                 120                 125
Leu Phe Leu Ser Pro Phe Val Thr Ser Gln
    130                 135
```

<210> 31661
<211> 168
<212> PRT
<213> A.fumigatus

<400> 31661

```
Leu Met Lys Leu Thr Ala Asp Leu Gln Pro Ala Ala Ala Ile Leu Lys
1               5                   10                  15
Ser Glu Val Ala Pro Phe Leu Gln His Asn Glu Ser Met Leu Pro Met
            20                  25                  30
Tyr Ser Thr Val Thr Gly Lys Ala Ile Pro Asn Pro Ala Ala Leu Asp
        35                  40                  45
Ala Glu His Trp Gln Lys Asn Leu Glu Leu Pro Val Leu Phe Ser Thr
    50                  55                  60
Ala Val Asp Gly Val Leu Ala Glu Arg Pro Glu Arg Arg Lys Ile Phe
65                  70                  75                  80
Leu Glu Ile Gly Thr His Ser Ile Leu Ser Gly Pro Leu Arg Gln Ile
                85                  90                  95
Phe Thr Tyr Lys Ser Ser Asp Cys Val Tyr Leu Pro Thr Leu Ile Lys
            100                 105                 110
Ser Glu Ser Glu Thr Phe Cys Leu Leu Lys Thr Ala Gly Gln Leu Tyr
        115                 120                 125
Leu His Gly His Pro Val Asp Phe Gln Ala Val Asn Gly Asn Gly His
    130                 135                 140
Ile Val Thr Asn Leu Pro Ala Tyr Pro Trp Asp Arg Lys Arg Val Asn
145                 150                 155                 160
Trp Gln Gly Lys Pro Phe Lys Pro
                165
```

<210> 31662
<211> 617
<212> PRT
<213> A.fumigatus

<400> 31662

```
Thr Gly Arg Glu Ser Arg Leu Ser His Asn Trp Arg Phe Arg Val Tyr
1               5                   10                  15
Pro Asn His Glu Leu Leu Gly Ser Arg Met Leu Glu Ala Ser Asp Leu
            20                  25                  30
Glu Pro Gly Trp Arg Asn Val Leu Glu Ser Arg His Val Pro Trp Leu
        35                  40                  45
Ser Asp His Arg Val Ser Gly Glu Val Val Phe Pro Cys Ala Gly Tyr
    50                  55                  60
```

```
Ile Ala Met Ile His Glu Ala Met Arg Gln Leu Ser Asn Asn Asn Glu
65                  70                  75                  80
Cys Thr Ile Gln Asn Leu Ser Met Gln Val Pro Leu Ile Val Pro Arg
                85                  90                  95
Val Glu Pro Ile Glu Ile Leu Thr Thr Ala Lys Arg Ile Arg Val Asn
            100                 105                 110
Asp Arg Val Glu Ser Asp Trp Phe Glu Phe Ala Ile Met Ser Tyr Asn
        115                 120                 125
Gly Thr Glu Trp Ile Arg His Ala Phe Gly Arg Ala Lys Ser Gly Val
    130                 135                 140
Asp Lys Val Asp Ser Glu Pro Arg Val Pro Arg Asp Phe Pro Arg Arg
145                 150                 155                 160
Val Ser Ser Glu Leu Trp Tyr Arg Thr Leu Glu Lys Val Gly Leu Ser
                165                 170                 175
Tyr Gly Pro Thr Phe Arg Gly Leu Gln Glu Ile Thr Ala Asp Pro Ser
            180                 185                 190
Arg His Val Ala Ala Ala Ser Met Arg Gly Arg Gln Asp Ser Lys Ala
        195                 200                 205
Val His Pro Thr Val Ile Asp Glu Cys Leu Gln Leu Phe Thr Val Ala
    210                 215                 220
Ala Cys Lys Gly Arg Ala Val Asn Met Thr Arg Leu Tyr Val Pro Val
225                 230                 235                 240
Phe Val Gly Glu Val Gln Leu Gly Leu Gly Gln Glu Ile Met Arg Ala
                245                 250                 255
Glu Ala Thr Ile Ser Asn Trp Thr Ala Glu Leu Gly Ser Gly Asn Val
            260                 265                 270
Arg Leu Ile Ala Met Asp Gln Gln Asp Ala Ser Ile Lys Arg Val Leu
        275                 280                 285
Ser Met Ala Gly Val Thr Val Ala Pro Leu Asp Ser Asn Ile Arg Ala
    290                 295                 300
Val Ser Glu Ala Asp Phe Pro Leu Ala Ser His Ala Glu Trp Arg Pro
305                 310                 315                 320
Asp Ile Asp Leu Leu Asn Glu Gln Arg Leu Thr Arg His Tyr Ser Gln
                325                 330                 335
Ser Thr Glu Ala Gly Phe Ala Leu Ile Ala Lys Leu Ser Ala Leu Ser
            340                 345                 350
Val Ile Gln Val His Arg Arg Ile Ala Asp Val Thr Pro Phe Ser Pro
        355                 360                 365
Ser Leu Ala Lys Tyr Gln Lys Phe Ile Ser Thr Gln Ile Ala Glu Ile
    370                 375                 380
Gln Gly Gly Ser Phe Cys Gly Val Pro Glu Ala Ala Ser Trp Leu Lys
385                 390                 395                 400
Phe Ser Asp Glu Ser Leu Gln Arg Gln Arg Ala Ala Leu Asp Glu Gly
                405                 410                 415
Leu Arg Thr Ser Lys Leu Ala Cys Val Ser Ser Leu Ser Asn Trp Ile
            420                 425                 430
Val Glu Thr Val Arg Asn Val Ile Asp Gly Ser Leu Leu Pro Ser Asp
        435                 440                 445
Phe Pro Ala Ala Ile Gln Glu Gln Ile Trp Gln Cys Glu Ser Leu Val
    450                 455                 460
Ala Ser Met Thr Asp Leu Ser His Trp Phe Gly Leu Leu Arg His Ser
465                 470                 475                 480
Asn Pro Leu Leu Arg Ile Leu His Ile Ala Glu Gly Lys Gly Val Val
                485                 490                 495
Ser His Gln Val Leu Glu His Leu Asp Ser Glu Asp Leu Pro Phe Tyr
            500                 505                 510
```

```
Ser Lys Tyr Thr Tyr Thr Ser Thr Asn Asp Ile Ser Pro Ala Val Gln
        515                 520                 525
Glu His Leu Lys Glu Tyr Lys Glu Val Asn Phe Lys Ser Leu Asp Ile
    530                 535                 540
Thr Lys Asp Pro Arg Gln Gln Gly Phe Glu Glu Gly Ala His Asp Leu
545                 550                 555                 560
Ile Ile Val Ser Asn Phe Cys Asp Val Asp Phe Ser Ala Ile Trp His
                565                 570                 575
Ser Arg Leu Leu Thr Ala Phe Pro Asp Glu Arg Ser Thr Phe Ser Val
            580                 585                 590
Ala Asn Cys Ser Ser Lys His Gln Asn Ala Pro Cys Ala Gly Arg Pro
        595                 600                 605
Ser Ser Ala Ser Tyr Thr Lys Cys Arg
    610                 615
```

<210> 31663
<211> 194
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (2)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31663

```
Cys Xaa Asp Gln Leu Phe Gln Gly Leu Gly Asn Leu Pro Ile Ser Arg
1                   5                   10                  15
Cys Ser Gln Leu Glu Arg Arg Gly Asp Cys Gly Val Cys Gly Glu Arg
            20                  25                  30
Pro Phe Thr Ser Tyr Gly Tyr His Leu Arg Ile Pro Ala Trp Thr Met
        35                  40                  45
Arg Val Gln Gly Leu Ser Ser Gly Gly Met Val Ala Ile Gly Leu Asp
    50                  55                  60
Glu Ala Ser Leu Lys Pro Ile Leu Ser Glu Gly Val Val Val Ala Cys
65                  70                  75                  80
Val Asn Ser Pro Gln Ser Val Asn Leu Ser Gly Asp Lys Thr Arg Leu
                85                  90                  95
Ala Ala Val Val Asp Arg Ile Lys Ala Asp Lys Pro Glu Thr Phe Ile
            100                 105                 110
Arg Tyr Ile Pro Val Pro Val Ala Tyr His Ser Arg Glu Leu Asn Pro
        115                 120                 125
Val Phe Val Thr Phe Cys Tyr Leu Ala Ile Ala Asn Glu Ile Asn Ser
    130                 135                 140
Arg Ser Ala Thr Ser Gly Ser His Ser Gln Val Arg Ser Cys Pro Leu
145                 150                 155                 160
Ser Pro Ala Gln Arg Ile Asn Ala Ala His Val Leu His Cys His Arg
                165                 170                 175
Gln Gly Asp Thr Lys Pro Gly Cys Pro Arg Arg Arg Ala Leu Ala Glu
            180                 185                 190
Lys Pro
```

<210> 31664
<211> 76
<212> PRT

<213> A.fumigatus

<400> 31664
Ser Leu Arg Leu Gln Arg Val Ser Pro Ser Phe Lys Met Ala Thr Glu
1 5 10 15
Asp Leu Ile Thr Leu Thr Tyr Lys Glu Arg Ile Ala Ile Ile Thr Phe
20 25 30
Asn Arg Pro Glu Lys Leu Asn Ala Leu Asn Ala Asp Leu Tyr Tyr Leu
35 40 45
Leu Gly Glu Arg Leu Arg Glu Ile Glu Lys Arg Asp Asp Ile Phe Ile
50 55 60
Thr Ile Leu Thr Gly Thr Gly Arg Tyr Phe Ser Ala
65 70 75

<210> 31665
<211> 215
<212> PRT
<213> A.fumigatus

<400> 31665
Arg Pro Ile Ser Gly Ala Asp Val Asn Ser Thr Arg Pro Gly Gly Gly
1 5 10 15
Leu Asn Ser Asp Thr Arg Arg Glu Ile Thr Arg Thr Phe Val Val Asn
20 25 30
Asn Leu Asp Leu Thr Arg Thr Val Tyr Asn His Pro Lys Ile Leu Val
35 40 45
Ala Ala Leu Asn Gly Pro Ala Val Gly Leu Ser Ala Ala Leu Val Ala
50 55 60
Phe Ala Asp Phe Val Tyr Ala Ala Pro His Thr Phe Leu Leu Thr Pro
65 70 75 80
Phe Ser Ser Leu Gly Leu Val Ala Glu Gly Gly Ala Ser Arg Ala Phe
85 90 95
Val Glu Arg Leu Gly Ile Ser Lys Ala Asn Glu Ala Leu Ile Met Ser
100 105 110
Lys Arg Ile Thr Cys Glu Glu Leu Val Ala Thr Gly Phe Val Asn Lys
115 120 125
Val Ile Ser Ala Pro Ser Gly Lys Pro Asp Asp Ser Glu Gly Phe Leu
130 135 140
Lys Lys Val Leu Glu Glu Val Glu Asp Arg Leu Gly Thr His Leu Asn
145 150 155 160
Gln Ser Ser Leu Leu Lys Ile Lys Glu Leu Ile Arg Arg Pro Glu Arg
165 170 175
Glu Leu Leu Asp Arg Gln Asn Thr Tyr Glu Val Phe Ala Gly Met Glu
180 185 190
Arg Phe Val Lys Gly Tyr Pro Gln Glu Glu Phe Arg Lys Leu Ala Ser
195 200 205
Gly Glu Lys Arg His Lys Leu
210 215

<210> 31666
<211> 157
<212> PRT
<213> A.fumigatus

<400> 31666
Ile Pro Glu Ala Ala Pro Ala Cys Val Gly Tyr Arg Thr Ser Thr Leu

```
1               5                   10                  15
Gly Arg Asn Arg Thr Asp Pro Leu Leu Phe Ser Cys Leu Glu Ile Leu
            20                  25                  30
Gln Met Lys Asn Pro Ile Gly Ile Lys Glu Glu Asp Thr Asp Ala Pro
        35                  40                  45
Glu Glu Ser Phe Val Arg Leu Ser Leu Asn Gly Ala Thr Pro Thr Val
    50                  55                  60
Val Glu Val Asn Arg Asp Glu Asp Ser Glu Ser Glu Lys Asp Val Gly
65                  70                  75                  80
Ser Ala Asp Asp Gly Asp Asp Ser Pro Phe Leu Pro Glu Phe Arg Leu
                85                  90                  95
Val Lys Arg Asp Asp Pro Glu Ala Tyr Ser Phe Ser Thr Pro Gln Tyr
            100                 105                 110
Ser Ala His Lys Leu Pro Lys Glu Val Val Asp Ala Ser Leu Ala Gly
        115                 120                 125
Ser Gly Gly Met Ser Glu Phe Leu Gly Lys Trp Gln Asp Ile Leu Ala
    130                 135                 140
Lys Gln Thr Gln Glu Asp Thr Asp Ser Asp Asp Gly Arg
145                 150                 155
```

Sequence Listing

<210> 31667
<211> 277
<212> PRT
<213> A.fumigatus

<400> 31667

```
Pro Val Thr Thr Met Thr Leu Phe Thr Thr Asn His Gln Thr Ala Phe
1               5                   10                  15
Ala Met Ser Ser His Gln Tyr Thr Leu Pro Gly Met His Asp Val Pro
            20                  25                  30
Glu Thr Tyr Pro Tyr His Met Arg Val Asp Ser Glu Glu Asp Met Asp
        35                  40                  45
Ser Leu Tyr Leu Ser Ser Ala Pro Glu Pro Ser Tyr Thr Arg Leu Asp
    50                  55                  60
Phe Glu Pro Thr Ile Pro Ala Met Pro Thr Ser Gln Ala Tyr Asn Thr
65                  70                  75                  80
Thr Met Arg Ala Pro Met Ser Gly Ser Tyr Leu Pro Tyr Ser Asp Gln
                85                  90                  95
Trp Thr Ser Gln Val Pro Pro Thr Ala Ala Ala Ala Pro Thr Thr Thr
            100                 105                 110
Leu Tyr His Pro Thr Asp Ile Tyr Pro Ser Ser Thr Met Thr Tyr Thr
        115                 120                 125
Pro Gln Arg Thr Ala Pro Thr Ala Leu Asn Pro Asn Pro Gln Thr Tyr
    130                 135                 140
Phe Tyr Pro Asp Pro Ser Thr Asn Thr Asn Leu Asp Leu Asp Leu Lys
145                 150                 155                 160
Leu Pro Ser Ser Asp Leu Asp Thr Lys Asp Leu Thr Asn Tyr Gly Ile
                165                 170                 175
Pro Asn Pro Asp Gly Ser Trp Ser Cys Ala Tyr Pro Gly Cys Thr Ser
            180                 185                 190
Thr Ala Thr Phe His Arg Gly Cys Asp Leu Arg Lys His Phe Asn Arg
        195                 200                 205
His Arg Lys His Leu Phe Cys Arg His Glu Gly Cys Pro Gln Ala Val
    210                 215                 220
Thr Gly Gly Phe Ser Ser Lys Lys Asp Arg Ser Arg His Glu Ala Lys
225                 230                 235                 240
```

```
His Asn Pro Gly Val Val Cys Glu Trp Pro Asp Cys Gly Arg Val Phe
                245                 250                 255
Ser Arg Val Asp Asn Met Lys Asp His Val Arg Arg Ile His Lys Arg
            260                 265                 270
Gly Glu Val Tyr Ser
        275
```

<210> 31668
<211> 83
<212> PRT
<213> A.fumigatus

<400> 31668

```
Ser Leu Val Trp Phe Cys Leu Phe Thr Pro Thr Ile Gly Met Leu Ile
1               5                   10                  15
Leu Phe Ile Arg Val Asn Lys Ser Asn Pro Asp Leu Thr Asn Thr Ile
            20                  25                  30
Val Ile Ser Leu Ala Glu Val Ser Lys His Pro Ser Ile Gln Ser Tyr
        35                  40                  45
Tyr Leu Leu Ser Ile Thr Val Val Arg Gln Asp Leu Lys Ser Asn Leu
    50                  55                  60
Leu Leu Thr Tyr Ile Ile Asn Gln Gly Thr Val Val Leu Gly Trp Ile
65                  70                  75                  80
Val Arg Arg
```

<210> 31669
<211> 348
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (124),(290)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31669

```
Ile Asp Arg Gly Ser Phe Gln Pro Arg Gly Glu Asp Pro Pro Leu Ser
1               5                   10                  15
Leu Trp His Gly Phe Met Pro Thr Phe Thr Thr Thr Ser Ser Asn Pro
            20                  25                  30
Gly Leu Asp His Arg Leu Ser Ser Pro Ile Leu Glu His Tyr Val Tyr
        35                  40                  45
Pro Thr Phe Ile Ala Val Ala Trp Cys Asn Ala Ile Asp Leu Ile Val
    50                  55                  60
Leu Cys Phe Asn Thr Phe Lys Arg Tyr Ser Gly Pro Tyr Phe Trp Ser
65                  70                  75                  80
Leu Leu Val Ser Ser Phe Cys Ile Ile Pro Phe Gly Leu Gly Tyr Val
                85                  90                  95
Leu Lys Ile Tyr Ser Ile Thr Phe Thr Asn Tyr Phe Leu Glu Ile Ala
            100                 105                 110
Ile Leu Asp Ala Gly Trp Ser Gly Met Val Thr Xaa Gln Ser Leu Val
        115                 120                 125
Leu Trp Ser Arg Leu Asn Leu Val Leu Asp Asn Arg Arg Val Leu Lys
    130                 135                 140
Ala Leu Leu Tyr Leu Ile Ile Val Asp Gly Ala Val Leu His Thr Ala
```

```
145                 150                 155                 160
Cys Thr Ala Leu Glu Phe Ala Thr Asn Ala Leu Pro Ser Asn Gly Val
                165                 170                 175
Ala Ile Ala Phe Asp Val Met Glu Arg Val Gln Leu Val Gly Phe Cys
            180                 185                 190
Leu Gln Glu Leu Leu Leu Ser Gly Leu Tyr Ile Tyr Lys Ala Val Pro
        195                 200                 205
Leu Leu Lys Met Asp Ala Asp Arg Arg Ser Arg Gly Val Leu Val Gln
    210                 215                 220
Leu Ile Val Ile Asn Ala Val Ile Met Ala Leu Asp Val Ser Val Val
225                 230                 235                 240
Ile Val Gln Tyr Leu Gly Leu Phe Thr Leu Gln Val Thr Ser Lys Ala
                245                 250                 255
Leu Val Tyr Ser Ile Lys Leu Lys Leu Glu Tyr Val Ile Leu Gly Arg
            260                 265                 270
Leu Val Asp Val Ser Arg Val Arg Ser Pro Ala Ala Ala Arg Met Arg
        275                 280                 285
Leu Xaa Phe Val Ile Phe Leu Val Tyr Ile Tyr Arg Phe Leu Leu Val
    290                 295                 300
His Ile Ile Leu Ser Ile Tyr Asn Ile Val Tyr Ile Arg Leu Ser Thr
305                 310                 315                 320
Pro Thr Ser Arg Ser Trp Ser Ser Cys Ser Ser Thr Ser Ser Ser Glu
                325                 330                 335
Thr Pro Ser His Ser Leu Lys Arg Lys Arg Ala Pro
            340                 345
```

<210> 31670
<211> 179
<212> PRT
<213> A.fumigatus

<400> 31670

```
Asn Ala Lys Glu Arg Arg Asn Pro Gly Leu Arg Arg Gln Tyr Arg Ser
1               5                   10                  15
Cys Tyr Ser Gln Arg Gly Lys Thr Tyr Ile Ser Pro Arg Val Ile Pro
            20                  25                  30
Leu Leu Gln Val Lys Arg Pro Arg Ile Val Arg Pro Ser Arg Ile Leu
        35                  40                  45
Thr Glu Leu Thr Ser Arg Arg Ile Pro Ile Asn Gln Ile Ser Arg Leu
    50                  55                  60
Leu Ser Gln Glu Arg Ser His Val Leu Pro Thr Arg Leu Ser Gln Arg
65                  70                  75                  80
Arg Thr Lys Ser His Gln Leu Arg Arg Val Thr Ala His Leu His Ile
                85                  90                  95
Pro Glu Asp Leu Thr Gln Gln Pro Ala Asn Gln Val Arg Glu Arg Ile
            100                 105                 110
Glu Val Val Gln Pro Val Ala Pro Glu Arg Leu His Leu Arg Lys Gly
        115                 120                 125
His His His Ala Ala Glu Ala Asp Gln Pro Arg Ala Asp Gln His Gly
    130                 135                 140
Val His His Arg Arg Glu Val Leu Val Gly Arg Val Arg Cys Asp Pro
145                 150                 155                 160
Leu Ser Asp Arg Arg Val Gln Glu Leu Val Glu Asp His Leu Gln Ile
                165                 170                 175
His Val Ser
```

<210> 31671
<211> 233
<212> PRT
<213> A.fumigatus

<400> 31671
Arg Ser Ala Tyr Asn Ile Ile Arg Phe Leu Arg Lys Leu Val Asp Gly
1 5 10 15
Gly Gln Ala Val Leu Cys Thr Ile His Gln Pro Ser Ala Val Leu Phe
20 25 30
Glu Ala Phe Asp Ser Leu Leu Leu Leu Ala Arg Gly Gly Lys Met Ala
35 40 45
Tyr Phe Gly Glu Thr Gly Lys Asp Ser Gln Thr Val Leu Asp Tyr Phe
50 55 60
Ala Arg His Gly Ala Pro Cys Pro Pro Asp Glu Asn Pro Ala Glu His
65 70 75 80
Ile Val Glu Val Ile Gln Gly Asn Thr Asp Lys Pro Ile Asp Trp Val
85 90 95
Gln Val Trp Asn Glu Ser Glu Glu Lys Gln Arg Ala Leu Ala Gln Leu
100 105 110
Gln Thr Leu Asn Ala Arg Gly Lys Ala Asp Ala Asp Tyr Val Glu Asp
115 120 125
Thr Ala Asp Tyr Ala Thr Ser Lys Trp Phe Gln Phe Thr Met Val Thr
130 135 140
Lys Arg Leu Met Val Gln Leu Trp Arg Ser Pro Asp Tyr Val Trp Asn
145 150 155 160
Lys Val Ile Leu His Val Phe Ala Ala Leu Phe Ser Gly Phe Thr Phe
165 170 175
Trp Lys Ile Gly Asp Gly Thr Phe Asp Leu Gln Leu Arg Leu Phe Ala
180 185 190
Ile Phe Asn Phe Ile Phe Val Ala Pro Gly Cys Ile Asn Gln Met Gln
195 200 205
Pro Phe Phe Leu His Asn Arg Asp Ile Phe Glu Ala Arg Glu Lys Lys
210 215 220
Val Leu Ser Tyr Pro Leu Tyr Thr Pro
225 230

<210> 31672
<211> 63
<212> PRT
<213> A.fumigatus

<400> 31672
Pro Glu Gly Ala Val Leu Leu Leu Glu Arg Cys Lys Ser Ser Pro Val
1 5 10 15
Ala Ser Asn Lys Thr Asp Thr Asp Gly Val Asp Arg Asp Tyr Gly Ala
20 25 30
Leu Leu Arg Phe Lys Leu Cys Asp Gly Val Ser Asp Asp Glu Val Glu
35 40 45
Glu Gln Glu Asp Gln Glu Arg Glu Val Gly Val Asp Asn Leu Ile
50 55 60

<210> 31673
<211> 214
<212> PRT

<213> A.fumigatus

<400> 31673
Ser Lys Ile Tyr His Trp Leu Ala Phe Ile Gly Ala Gln Thr Val Ser
1 5 10 15
Glu Ile Pro Tyr Leu Ile Leu Cys Ala Thr Leu Tyr Phe Ala Cys Trp
20 25 30
Tyr Phe Thr Ala Gly Phe Pro Thr Thr Ala Ser Ile Ser Gly His Met
35 40 45
Tyr Leu Gln Met Ile Phe Tyr Glu Phe Leu Tyr Thr Ser Ile Gly Gln
50 55 60
Gly Ile Ala Ala Tyr Ala Pro Asn Glu Tyr Phe Ala Ala Val Met Asn
65 70 75 80
Pro Val Leu Ile Gly Ala Gly Leu Val Ser Phe Cys Gly Val Val Val
85 90 95
Pro Phe Ser Gln Met Gln Pro Phe Trp Arg Asp Trp Leu Tyr Tyr Leu
100 105 110
Asp Pro Phe Thr Tyr Leu Val Gly Gly Leu Leu Gly Glu Val Leu Trp
115 120 125
Asp Val Glu Val Arg Cys Asp Pro Ser Glu Leu Val Arg Phe Arg Ala
130 135 140
Pro Leu Gly Gln Thr Cys Gly Glu Tyr Met Ala Ala Phe Leu Ala Glu
145 150 155 160
Lys Pro Gly Tyr Leu Val Asp Gly Asn Ala Thr Ala Cys Glu Phe Cys
165 170 175
Gln Tyr Ser Thr Gly Ala Asp Tyr Ala Arg Thr Phe Asn Leu Lys Glu
180 185 190
Arg Tyr Tyr Ser Trp Arg Asp Val Ser Leu Pro Pro Leu Arg Val Thr
195 200 205
Arg Pro Ile Leu Thr Ala
210

<210> 31674
<211> 78
<212> PRT
<213> A.fumigatus

<400> 31674
Ala Ala Cys Ala Phe Val Gly Leu Met Val His Ser Pro Ser Pro Ile
1 5 10 15
Arg His Ala Phe Tyr Glu Thr Phe Leu His Leu His Ile Ala Met Ala
20 25 30
Ile Val Ser Met Val Gly Leu Trp Ile His Leu Asp Gly Leu Pro Ala
35 40 45
Gln Thr Tyr Leu Leu Val Ala Ile Ile Phe Trp Gly Val Glu Val Gly
50 55 60
His Arg Asn Pro Phe Pro Val Lys Leu Glu Gln Ala Arg Ser
65 70 75

<210> 31675
<211> 294
<212> PRT
<213> A.fumigatus

<400> 31675
Leu Cys Pro Gln Arg Ala Thr Arg Val Ala Ile Ile Val Tyr Arg Asn

```
1               5                   10                  15
Cys Gly Arg Arg Ala Thr Thr Ala Val Val Glu Ala Met Pro Gly Glu
            20                  25                  30
Ala Met Arg Ile Thr Leu Lys Met Ala Arg Pro Trp Thr Phe Lys Pro
        35                  40                  45
Gly Gln His Ile Tyr Leu Tyr Ile Pro Ser Ile Gly Leu Trp Thr Ser
    50                  55                  60
His Pro Phe Ser Val Gly Trp Ser Glu Ser Glu Glu Val Val Thr Asp
65                  70                  75                  80
Glu Lys Gly Met Pro Met Thr Arg Gln Asp Val Phe Gly Met Gln Lys
                85                  90                  95
Thr Thr Val Ser Leu Leu Val Arg Arg Arg Thr Gly Phe Thr Asn Lys
            100                 105                 110
Leu Tyr Gln Arg Ala Leu Ser Ala Pro Asp Ser Arg Val Thr Leu Lys
        115                 120                 125
Ala Phe Ala Glu Gly Pro Tyr Gly Gly Ile His Ser Met Asp Ser Tyr
    130                 135                 140
Gly Thr Val Val Leu Phe Ala Gly Gly Val Gly Ile Thr His Gln Val
145                 150                 155                 160
Pro Phe Val Arg His Leu Val Lys Gly Tyr Ala Glu Gly Thr Val Ala
                165                 170                 175
Ala Arg Arg Val Thr Leu Val Trp Ile Ile Gln Ser Pro Glu His Leu
            180                 185                 190
Glu Trp Ile Arg Pro Trp Met Thr Ser Ile Leu Ala Met Asp Arg Arg
        195                 200                 205
Arg Glu Val Leu Arg Ile Met Leu Phe Ile Thr Arg Pro Arg Asn Thr
    210                 215                 220
Lys Glu Ile Gln Ser Pro Ser Ala Thr Val Gln Met Phe Pro Gly Arg
225                 230                 235                 240
Pro Asn Ile Asp Thr Leu Ile Gly Met Glu Val Glu Asn Gln Ile Gly
                245                 250                 255
Ala Met Gly Val Leu Val Cys Gly Asn Gly Ser Leu Ser Asp Asp Val
            260                 265                 270
Arg Arg Val Cys Arg Lys Arg Gln Asp Gln Thr Asn Val Asp Phe Val
        275                 280                 285
Glu Glu Ser Phe Thr Trp
    290
```

<210> 31676
<211> 137
<212> PRT
<213> A.fumigatus

<400> 31676

```
Leu Ser Tyr Ala Leu Lys Tyr Ser Ser Ser Arg Ala Gly Arg Asp Leu
1               5                   10                  15
Pro Gly Ser Thr Gln Val Phe Phe Ala His Gln Pro Phe Ala Asp Pro
            20                  25                  30
Ser Glu Thr Leu Asp Leu Arg Pro Trp Met Asp Gln Thr Pro Ile Thr
        35                  40                  45
Leu Asn Ser Gly Thr Thr Phe Leu Ile Val Arg Arg Met Phe Gln Arg
    50                  55                  60
Leu Gly Leu Arg Tyr Val Leu Phe Ala Asn Lys Gly Val Leu Gln Gly
65                  70                  75                  80
Leu Leu Thr Lys Lys Asp Val Trp Ser Ile Ile Asp Gly Ala Glu Ser
                85                  90                  95
```

```
Arg Arg Val Glu Asp Leu Val Thr Asp Ser Phe Arg Gln Arg Asn Thr
            100                 105                 110
Ala Glu Glu Val Gly Leu Leu Glu Ser Asp Asp Gly Thr Ser Leu Ala
        115                 120                 125
Ser Ser Leu Asp Arg Arg Pro Ser Leu
    130                 135
```

<210> 31677
<211> 84
<212> PRT
<213> A.fumigatus

<400> 31677

```
Leu Leu Phe Glu Ala Ile Gly Leu Val Glu His Ser Glu Asn Ser Arg
1               5                   10                  15
Thr Ala Thr Met Met Ala Asp Pro Phe Glu Val Arg Met Arg Phe Thr
            20                  25                  30
Ala Gln Leu Gln His Leu Asn Ala Ser Val Thr Ser Ser Gln Lys Ala
        35                  40                  45
Ala His Tyr Ala Leu Lys Tyr Arg Asp Met Asp Glu Asp Leu His Ser
    50                  55                  60
Cys Ile Leu Glu Gln Leu Glu Arg Val Cys Met Ser Leu Leu Pro Tyr
65                  70                  75                  80
Arg Arg Leu Leu
```

<210> 31678
<211> 214
<212> PRT
<213> A.fumigatus

<400> 31678

```
Phe Ser Met Phe Ser His Ile Val Thr Ala Ala Lys Gly Leu Phe Ala
1               5                   10                  15
Arg Gln Glu Val Asp Glu Thr Lys Leu Asp Asn Ser Asn Thr Thr Ser
            20                  25                  30
Thr Ser Ser Thr Gly Pro Ile Gly Arg Asn Thr Lys Met Val Thr Ala
        35                  40                  45
Thr Arg Arg Arg Thr Leu Glu Thr Ser Ser Thr Ala Ser Gly Asp Ser
    50                  55                  60
Lys Gly Met Pro Thr Ser Ala Asn Gly Lys Arg Lys Pro Glu Ser Thr
65                  70                  75                  80
Ser Ala Val Lys Pro Glu Ser Gln His Asn Lys Arg Arg Lys Arg Ser
                85                  90                  95
Ser Val Glu Ala Ala Glu Glu Gln Lys Arg Glu Leu Ser Thr Asp Gly
            100                 105                 110
Val Val Ala Glu Pro Asp Ser Lys Arg Ser Glu Ala Gln Ala Ala Ser
        115                 120                 125
Ser Lys Thr Lys His Phe Arg Phe Asp Ser Glu Glu Pro Glu Leu Pro
    130                 135                 140
Val Glu Met Glu Thr Glu Ala Pro Glu Pro Gln Gln Lys Glu Gln Asp
145                 150                 155                 160
Asn Glu Asp Ser Ser Asp Asp Asp Glu Ala Pro Glu Ala Ile Asp Asn
                165                 170                 175
Ser Thr Gln Met Ser Lys Ile Arg Leu Glu Ala Lys Arg Gln Glu Arg
            180                 185                 190
```

```
Ala Arg Gln Met Leu Val Ser Pro Leu Pro Leu Lys Asn Phe Phe Val
        195                 200                 205
Ser Asn Ser Asn Leu Gln
    210
```

<210> 31679
<211> 187
<212> PRT
<213> A.fumigatus

<400> 31679

```
Asn Asn Met Asn Asn Arg Ala Asn Ile Met Tyr Phe Ile Glu Gln Phe
1               5                  10                  15
Cys Glu Met Ala Thr Lys Glu Asn His Thr Pro Tyr Val Arg Met Met
            20                  25                  30
Gln Arg Asp Ile Leu Arg Val Val Asp Ala Val Val Pro Pro Asp Gly
        35                  40                  45
Ser Gly Ala Ala Asn Ile Lys His Val Arg Arg Val Leu Asn Gly Leu
    50                  55                  60
Gln Ser Lys Asp Ile Leu Ser Ala Glu Thr Val Ala Glu Ile Asp Ala
65                  70                  75                  80
Gly Leu Lys Glu Arg Glu Ala Gln Val Ala His Leu Asp Leu Asp Ala
                85                  90                  95
Glu Glu Glu Gly Asn Asn Gly Ser Lys Ala Lys Gly Gly Thr Pro Arg
            100                 105                 110
Gly Ser Arg Pro Ser Gly Met Arg Val Asp Lys Arg Gln Ile Glu Gln
        115                 120                 125
Arg Ile Glu Glu Asp Arg Glu Arg Asn Lys Arg Leu Arg Glu Ser Met
    130                 135                 140
Trp Thr Val Ser Gly Asp Asp Gly Asp Glu His Gly Lys Phe Trp Asp
145                 150                 155                 160
Glu Val Ser Asp Ile Gly Glu Asp Asp Phe Leu Gly Ala Gln Glu Glu
                165                 170                 175
Leu Met Glu Arg Asn Gln Met Val Ala Ala Gln
            180                 185
```

<210> 31680
<211> 217
<212> PRT
<213> A.fumigatus

<400> 31680

```
Val Pro Phe Phe Ala Thr Ala Ser Asp Ser Glu His Leu Ile Leu Phe
1               5                  10                  15
Cys Phe Ile Ser Lys Asp Pro Ser Ala Leu Pro Lys Met His Phe Ser
            20                  25                  30
Pro Ala Ala Ile Leu Phe Ile Ser Val Leu Gly Thr Gln Ala Val Pro
        35                  40                  45
Leu Ala Phe Pro Gly Leu Glu Ser Asn Thr Leu Val Arg Arg Gln Glu
    50                  55                  60
Glu Thr Tyr Ser Val Val Asn Val Gly Gly Thr Ser Pro Asn Gly Val
65                  70                  75                  80
Asp Thr Ser Ser Val Val Glu Thr Gln Thr Gln Thr Val Thr Ala Pro
                85                  90                  95
Ser Ile Pro Gln Ala Pro Val Thr Val Thr Val Thr Asp Met Pro Thr
            100                 105                 110
```

```
Ser Thr Ser Thr Pro Val Ile Thr Pro Ser Ser Trp Ala Thr Pro Ser
        115                 120                 125
Ser Ser Ser Tyr Ile Pro Ser Ser Lys Cys Leu Thr Ala Trp Pro Thr
    130                 135                 140
Pro Ser Pro Glu Asp Asp His Arg Lys Pro Pro Leu Pro Pro Arg Ser
145                 150                 155                 160
Phe Arg Arg Ala Leu Ser Ser Thr Asn Ser Thr Gly Arg His Val Phe
                165                 170                 175
Asn Val Arg Ser Asp Asn Ala Thr Val Thr Val Pro Ile Ser Ala Arg
            180                 185                 190
Thr Leu Leu Asn Ser Thr Ile Ala Ala Arg Gly Gly Val Phe Ala Arg
        195                 200                 205
Ala Leu Asn Gln Thr Gly His Val Tyr
    210                 215
```

<210> 31681
<211> 73
<212> PRT
<213> A.fumigatus

<400> 31681

```
Leu Pro Lys Ile Thr Phe Tyr Leu Leu Thr Pro Ile Tyr Val Thr Asn
1               5                   10                  15
Leu Phe Ser Phe Asn Thr Asn Met Cys Arg Asn Pro Ile Asp Thr Met
            20                  25                  30
Asp Asn Leu Ser Thr Glu Asn Ile Pro Glu Ser Lys Ser Lys Ser Val
        35                  40                  45
Pro Tyr Val Arg Ser Lys Tyr Thr Ile Ala Arg Ala Arg Arg Arg Ser
    50                  55                  60
Ser Asn Ser Pro Tyr Gly His Ile Lys
65                  70
```

<210> 31682
<211> 532
<212> PRT
<213> A.fumigatus

<400> 31682

```
Ile Ser Arg Glu Arg Val Thr Met Pro Gly Arg Leu Leu Ser Ser Phe
1               5                   10                  15
Val Arg Pro Ala Ala Leu His Ser Ser Leu Leu Ser His Ser Asn Ser
            20                  25                  30
Ser Ser Thr Ser Ser Val Asn Glu Ile Thr Thr Thr Thr Val Ala Pro
        35                  40                  45
Lys Lys Pro His Ala His Ser Asp Arg Ala Arg Ser Pro Glu Arg Arg
    50                  55                  60
Leu Ser Phe Asn Met Asp His Leu Ile His Pro His Arg Asp His Ser
65                  70                  75                  80
Lys Glu Lys Lys Arg Ser His Gly Arg Ser Ala Arg Ser Lys Glu Arg
                85                  90                  95
Ser Gly Lys Glu Asp Ile Thr Ala Ala Pro Ala Lys Leu Asp Val Ile
            100                 105                 110
Val Glu Ser Pro Pro Leu Val Cys Tyr Gly Thr Pro Ala Asn Ser Thr
        115                 120                 125
Gly Ala Leu Phe Ser Gly Arg Leu Arg Ile Thr Val Ser Glu Gln Ala
    130                 135                 140
```

```
Asn Ala Val Thr Leu Asp Lys Phe Asp Met Lys Leu Leu Thr Lys Ile
145                 150                 155                 160
Thr Thr Lys Lys Pro Val Ser Arg Glu Cys Pro Asn Cys Ala Ser Arg
                165                 170                 175
Thr Glu Glu Leu Thr Ser Trp Asn Phe Leu Thr Glu Ser Leu Thr Leu
            180                 185                 190
Lys His Gly Glu His Asp Phe Pro Phe Ser Tyr Leu Phe Pro Gly His
        195                 200                 205
Leu Pro Ala Cys Cys Asn Gly Ser Leu Gly Gln Val Glu Tyr Tyr Leu
    210                 215                 220
Ser Ala Arg Ala His Asp Thr Asn Gly Glu Glu Tyr Thr Tyr Arg Met
225                 230                 235                 240
Pro Leu His Ile Lys Arg Ala Ile Leu Pro Gly Asn Asp Lys Ser Ser
                245                 250                 255
Ile Arg Ile Phe Pro Pro Thr Asn Leu Thr Gly Arg Ile Val Leu Pro
            260                 265                 270
Ser Val Val His Pro Ile Gly Thr Phe Pro Val Gln Met Thr Leu Ser
        275                 280                 285
Gly Val Val Asp Lys Gly Glu Glu Thr Gln Thr Arg Trp Arg Leu Arg
    290                 295                 300
Lys Met Met Trp Arg Ile Glu Glu His Gln Lys Ile Ile Ser Ala Ala
305                 310                 315                 320
Cys Ser Lys His Ala His Lys Ile Gly Gly Glu Gly Lys Gly Val Leu
                325                 330                 335
His Gln Glu Thr Arg Ile Ile Gly His Lys Glu Glu Lys Asp Gly Trp
            340                 345                 350
Lys Thr Asp Phe Asp Thr Ala Gly Gly Glu Ile Ser Met Gln Phe Glu
        355                 360                 365
Ala Ser Ile Asn Pro Thr Cys Asn Pro Val Cys Asp Leu Glu Val Pro
    370                 375                 380
Asn Gly Leu Glu Val Lys His Asn Leu Val Ile Glu Leu Ile Val Ala
385                 390                 395                 400
Glu Glu Phe Cys Pro Asn Arg Asn Thr Arg Ser Ile Thr Pro Thr Gly
                405                 410                 415
Ala Ala Arg Val Leu Arg Met Gln Phe His Leu His Val Thr Glu Arg
            420                 425                 430
Ser Gly Leu Gly Ile Ser Trp Asp Glu Glu Met Pro Pro Val Tyr Glu
        435                 440                 445
Asp Val Pro Ala Ser Pro Pro Gly Tyr Thr Met Leu Asp Gly Asn Ser
    450                 455                 460
Ile Met Glu Asp Tyr Ser Gly Ser Pro Leu Ser Leu Pro Asp Tyr Glu
465                 470                 475                 480
Glu Leu Glu Arg Met Glu Ser Leu His Leu Asp Ser Asp Ser Ala Gly
                485                 490                 495
Ser Val Arg Gly Arg Ser Arg Leu Thr Thr Glu Asp Leu Thr Ala Glu
            500                 505                 510
Pro Met Glu Pro Gly Ser Arg Ser Arg Gly Leu Ser Ala Asp Ser Gly
        515                 520                 525
Ala Ser Glu His
    530
```

<210> 31683
<211> 62
<212> PRT
<213> A.fumigatus

<400> 31683
Ser Ala Leu Thr Ala Gly Lys Leu Ser Ala Cys Thr Ala Tyr Tyr Ser
1 5 10 15
Glu Gly Gly Leu Ser Leu Ala His Thr Ser Val Ile Gln Lys Leu Gly
20 25 30
Asp Ser Cys Val Val Leu Ala Ser Asp Leu Phe Asp Lys Arg Ala Phe
35 40 45
Phe Ala Ser Ser Pro Arg Gly Cys His Ile Ile Gly Gly Leu
50 55 60

<210> 31684
<211> 117
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (6)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31684
Ala Gln Pro Gly Pro Xaa Arg Phe Gln Phe Gly Leu Ile Cys Glu His
1 5 10 15
Phe Thr Leu Glu Arg His Gly Lys Val Lys Pro Ser Leu Phe Leu Leu
20 25 30
Trp Thr His Gly Leu Asp Gly Arg Lys Asp Glu Leu Ile Pro Phe Thr
35 40 45
Tyr Val Arg Gly Ser Gly Pro Glu Phe Trp Tyr Ile Asp Leu Glu Asp
50 55 60
Pro Arg Thr Leu Gly Ala Pro Gly Gln Lys Leu Gln Val Ala Ala Leu
65 70 75 80
Thr Glu Phe Gly Asp Arg Lys Asp Cys Arg Gly Ile Ser Val Asp Glu
85 90 95
Tyr Lys Ala Asn Val Gly Arg Val Arg Met Ala Phe Ser Phe Val Ala
100 105 110
Glu Trp Ala Leu Val
115

<210> 31685
<211> 73
<212> PRT
<213> A.fumigatus

<400> 31685
Ile Asp Arg His Arg Tyr Ser Asp Asp Gln Phe Glu Tyr Arg His Val
1 5 10 15
Gln Leu Pro Lys Asn Met Leu Lys Lys Ile Pro Ala Asp Tyr Phe Asp
20 25 30
Ser Ser Lys Gly Thr Leu Lys Leu Leu Trp Glu Glu Glu Trp Arg Ala
35 40 45
Leu Gly Ile Thr Gln Val Leu Arg Ser Gly Leu Arg Lys Leu Ala Ser
50 55 60
Ile Ser Leu Trp Leu Ile Leu Met Leu
65 70

<210> 31686

<211> 472
<212> PRT
<213> A.fumigatus

<400> 31686

```
Arg Ile Pro Glu Leu Val Asp His Arg Asn Thr Met Asn Glu Thr Pro
1               5                  10                  15
Thr Ala Thr Gly Leu Pro Ile Ala Phe His Gly Thr Ile Ile His Ser
            20                  25                  30
Leu Ser Pro Thr His Leu Gln Ile Leu Pro Asn Thr Phe Leu Leu Val
        35                  40                  45
Asp Ile Ala Gly Asn Ile Gln Ala Leu Val Pro Asn Thr Asp Pro Ser
    50                  55                  60
Thr Ile Asn Thr Leu Ile Val Asp Asn Gly Tyr Ala Pro Asp Val Phe
65                  70                  75                  80
Pro Val Lys His Leu Pro Ser Ser Ser Phe Leu Ile Pro Gly Phe Ile
                85                  90                  95
Asp Thr His Asn His Ala Pro Gln Trp Ala Gln Arg Gly Val Trp Arg
            100                 105                 110
Gly Ile Ser Leu Leu Asp Trp Leu Glu Lys Val Thr Phe Ala His Glu
        115                 120                 125
Ala Lys Phe Glu Asp Ala Glu Tyr Ala Lys Arg Thr Tyr Ser Ala Ala
    130                 135                 140
Val Asp Gly Leu Leu Arg Gln Gly Ile Thr Thr Ala Ser Tyr Tyr Ala
145                 150                 155                 160
Ser Lys His Leu Ala Ala Thr Lys Ile Leu Ala Glu Val Cys Arg Ser
                165                 170                 175
Lys Gly Gln Arg Ala Leu Val Gly Arg Cys Asn Met Asn Arg His Ala
            180                 185                 190
Pro Gly Trp Tyr Arg Asp Leu Asn Ala Glu Val Ser Val Lys Glu Thr
        195                 200                 205
Arg Glu Phe Ile Val Trp Met Arg Glu Phe Asn Gly Thr Asp Asp Arg
    210                 215                 220
Pro Leu Val Asn Ala Val Ile Thr Pro Arg Phe Ala Ile Ser Cys Asp
225                 230                 235                 240
Glu Glu Val Leu Ser Gly Leu Gly Ala Leu Ala Ala Ala Asn Pro Asp
                245                 250                 255
Leu Arg Ile Gln Thr His Phe Asn Glu Ala Gln Gln Glu Met Glu Phe
            260                 265                 270
Thr Arg Gln Leu Phe Pro Asp Phe Ala His Glu Ala Glu Leu Tyr Thr
        275                 280                 285
Arg Phe Gly Leu Leu Ser Glu Arg Ser Ile Leu Ala His Cys Ile Phe
    290                 295                 300
Leu Arg Glu Glu Glu Met Glu Thr Leu Ala Arg Leu Arg Cys Gly Val
305                 310                 315                 320
Ala His Cys Pro Val Pro Asn Thr Thr Met Gln Ala Phe Met Val Ala
                325                 330                 335
Pro Val Arg Glu Tyr Leu Arg Arg Gly Ile Lys Val Gly Leu Gly Thr
            340                 345                 350
Asp Ser Gly Gly Gly His Ser Ile Ser Met Leu Glu Val Met Lys Gln
        355                 360                 365
Ala Phe Val Val Ser Thr Ala Arg Ala Thr Glu Thr Arg Gly Ala Asp
    370                 375                 380
Pro Ala Leu Ser Val Ala Glu Cys Phe Phe Leu Ala Thr Leu Gly Gly
385                 390                 395                 400
Ala Gln Val Cys Gly Leu Glu Glu Arg Val Gly Asn Phe Ala Val Gly
```

```
                405                 410                 415
Lys Glu Phe Asp Ala Leu Glu Ile Arg Thr Gly Glu Gly Val Glu Met
            420                 425                 430
Ser Val Met Ala Pro Val Glu Glu Glu Asp Ser Ile Glu Val Ile Phe
        435                 440                 445
Glu Lys Phe Leu Met Thr Gly Asp Asp Arg Asn Ile Ala Lys Val Tyr
    450                 455                 460
Val Arg Gly Arg Ala Val Lys Asp
465                 470
```

<210> 31687
<211> 80
<212> PRT
<213> A.fumigatus

<400> 31687

```
Val Arg Phe Val Ser Val Val Leu Phe Val Leu Thr Arg Ser Asp Phe
1               5                   10                  15
Val Leu Ser Ala Ala Leu Asp Ser Gly Val Ala Val Ala Thr Val Ile
            20                  25                  30
Ile Phe Phe Cys Ile Met Leu Pro Ala Gly Pro Leu His Trp Trp Gly
        35                  40                  45
Asn Ile Val Tyr Arg Lys Thr Ala Asp Gly Met Gly Thr Pro Leu Lys
    50                  55                  60
Pro Leu Pro Ser Leu Gly Tyr Phe Gly Pro Pro Lys Gly Lys Trp Glu
65                  70                  75                  80
```

<210> 31688
<211> 115
<212> PRT
<213> A.fumigatus

<400> 31688

```
Val His Pro Cys His Ser Lys Thr Arg Ala Asp Arg Gln Gly Ala Leu
1               5                   10                  15
Gly Pro Gly Arg Asn Phe Ser Pro Gly Gln Ile Tyr Gly Asn Leu Leu
            20                  25                  30
Trp Phe Phe Leu Ala Gly Pro Val Val Ile Val Ile Thr Phe Leu Leu
        35                  40                  45
Gly Arg Arg Trp Lys Arg Phe Asn Lys Ile Ser Trp Pro Val Ala Phe
    50                  55                  60
Gly Ala Met Ser Leu Val Pro Pro Ala Thr Gly Ile Asn Phe Ser Ser
65                  70                  75                  80
Trp Trp Val Val Asn Val Leu Phe Asn Gly Ile Ile Lys Arg Arg Lys
                85                  90                  95
Pro Ala Trp Trp Ser Lys Tyr Ser Glu Ser Gly Ser Ser Leu Trp Cys
            100                 105                 110
Cys Leu Tyr
        115
```

<210> 31689
<211> 115
<212> PRT
<213> A.fumigatus

<400> 31689

```
Leu Ser Arg Phe Val Ala Asp Met Lys Leu Ala His Tyr Leu His Ile
1               5                  10                  15
Ala Pro Arg Thr Leu Phe Met Ala Gln Gly Leu Ala Thr Leu Val Gly
            20                  25                  30
Ala Ile Val Gln Cys Gly Val Thr Val Phe Met Val Thr Arg Phe Asp
        35                  40                  45
Asn Ile Cys Thr Pro Asp Ala Asp Gly Gly Phe Thr Cys Pro His Gly
    50                  55                  60
Arg Val Thr Tyr Ser Ala Ser Leu Ile Trp Gly Lys Cys Ile His Ala
65                  70                  75                  80
Thr Pro Lys Leu Val Leu Thr Asp Lys Ala Pro Trp Val Leu Asp Glu
                85                  90                  95
Thr Phe Leu Gln Val Lys Ser Met Val Thr Phe Ser Gly Ser Phe Ser
            100                 105                 110
Leu Asp Leu
        115

<210> 31690
<211> 201
<212> PRT
<213> A.fumigatus

<400> 31690
Ala Arg Ala Leu Glu Ala Ser Arg Glu Ser Arg Ala Arg Gly Arg Arg
1               5                  10                  15
Arg Glu Gly Glu Glu Gly Glu Glu Gly Glu Glu Glu Glu Glu Gly Glu
            20                  25                  30
Ala Arg Arg Arg Ala Arg Gly Gly Gln Leu Ala Gly Arg Val Gly Ala
        35                  40                  45
Ala Gly Gly Ala Ala Arg Ala Gly Gly Arg Val Thr Ser Trp Arg Glu
    50                  55                  60
Pro Leu Gly Gln Ala Gly Arg Arg Gln Ala Arg Ala Arg Ala Met Asp
65                  70                  75                  80
Arg Arg Trp Pro Ser Asp Thr Leu Ala Gly Thr Gly Gly Asp Gln Leu
                85                  90                  95
Ala Gly Ala Arg Gln Gly Pro Thr Pro Gly Arg Glu Thr Pro Arg Arg
            100                 105                 110
Thr Arg Glu Ala Pro Glu Val Thr Ser Trp Pro Ala Arg Ala Arg Pro
        115                 120                 125
Cys Arg His Arg Arg Ala Ala Arg Arg Leu Arg Gly His Leu Gln Arg
    130                 135                 140
His Ala His Gly Arg Arg Pro Arg Arg Met Pro Ala Trp Pro Ala Gly
145                 150                 155                 160
Gly Ile His Pro Trp Gly Tyr Ala Asp Thr His Pro Ser Ile His Ile
                165                 170                 175
Tyr Met Cys Ile Cys Thr Arg Ile Pro Pro Arg His Leu His Gly Gly
            180                 185                 190
Arg Ser Ala Trp Pro Thr Gly Ala Ile
        195                 200

<210> 31691
<211> 237
<212> PRT
<213> A.fumigatus

<400> 31691
```

```
Thr Ala Arg Gly Ser Pro Val Pro Thr Arg Ala Arg Ala Arg Arg Pro
1               5                  10                  15
Thr Gly His Leu Trp Arg Leu Pro Cys Pro Ser Gly Cys Leu Ser Thr
            20                  25                  30
Arg Cys Arg Ser Leu Ala Arg Ala Gly Gln Leu Val Thr Pro Gly Ala
        35                  40                  45
Cys Glu Cys Val Ala Arg Pro Ala Ser Val His Gly Ala Arg Pro Cys
    50                  55                  60
Leu Pro Ala Ala Gly Leu Pro Lys Gly Leu Pro Pro Thr Gly His Pro
65                  70                  75                  80
Ala Ala Arg Pro Arg Gly Ala Pro Arg Arg Ala Asn Ser Ala Ser Gln
                85                  90                  95
Leu Ala Ala Ala Arg Ser Pro Ala Arg Leu Pro Leu Leu Leu Leu Leu
            100                 105                 110
Ala Leu Leu Ala Leu Leu Ala Leu Pro Ser Ser Pro Ser Arg Ala Arg
        115                 120                 125
Leu Ser Ala Arg Leu Glu Gly Ala Arg Leu Pro Gly Pro Gln Pro Pro
    130                 135                 140
Ser Thr Asp Ser Pro Gln Pro Gly Pro Ser Arg Ala Pro Pro Ala Ala
145                 150                 155                 160
Leu Leu Leu His Ile Pro Thr Asp Leu Ala Arg Pro Ile Ile Val Arg
                165                 170                 175
Ala Asn Val Pro Gly Ser Glu Arg Arg Ser Gly Gly Arg Pro Thr Cys
            180                 185                 190
Ala Gly Arg Pro Arg Ala Ala Arg Ala Ala Met Cys Pro Ser Gln Leu
        195                 200                 205
Val Thr Ala Leu Arg His Gln Ala Ala Ala Ala Arg Gly Ser Pro Ala
    210                 215                 220
Arg Arg Val Leu Asn Arg Pro Ala Gly Arg Tyr Tyr Leu
225                 230                 235
```

<210> 31692
<211> 300
<212> PRT
<213> A.fumigatus

<400> 31692

```
Met Ala Pro Val Gly His Ala Asp Leu Pro Pro Cys Arg Cys Arg Gly
1               5                  10                  15
Gly Met Arg Val His Met His Ile Tyr Ile Trp Met Asp Gly Trp Val
            20                  25                  30
Ser Ala Tyr Pro His Gly Trp Met Pro Pro Ala Gly His Ala Gly Ile
        35                  40                  45
Arg Arg Gly Arg Arg Pro Cys Ala Cys Arg Cys Lys Cys Pro Arg Arg
    50                  55                  60
Arg Arg Ala Ala Leu Arg Cys Arg Gln Gly Arg Ala Arg Ala Gly Gln
65                  70                  75                  80
Leu Val Thr Ser Gly Ala Ser Arg Val Arg Leu Gly Val Ser Arg Pro
                85                  90                  95
Gly Val Gly Pro Trp Arg Ala Pro Ala Asn Trp Ser Pro Pro Val Pro
            100                 105                 110
Ala Ser Val Ser Leu Gly Gln Arg Leu Ser Met Ala Arg Ala Leu Ala
        115                 120                 125
Cys Arg Arg Pro Ala Cys Pro Arg Gly Ser Arg Gln Leu Val Thr Leu
    130                 135                 140
Pro Pro Ala Arg Ala Ala Pro Pro Ala Ala Pro Thr Arg Pro Ala Asn
```

```
145                 150                 155                 160
Trp Pro Pro Arg Ala Arg Leu Arg Ala Ser Pro Ser Ser Ser Ser Ser
                165                 170                 175
Pro Ser Ser Pro Ser Ser Pro Ser Leu Arg Arg Pro Arg Ala Arg Asp
            180                 185                 190
Ser Leu Leu Ala Ser Arg Ala Arg Ala Tyr Arg Ala Pro Ser Pro Pro
        195                 200                 205
Gln Pro Thr Pro Leu Asn Arg Asp Pro Arg Ala Arg Arg Arg Arg Pro
    210                 215                 220
Phe Ser Tyr Thr Tyr Pro Pro Thr Ser Pro Gly Pro Ser Ser Cys Ala
225                 230                 235                 240
Gln Thr Phe Pro Gly Pro Asn Val Val Pro Gly Gly Gly Pro Pro Ala
                245                 250                 255
Pro Ala Asp Arg Ala Pro Pro Val Arg Pro Cys Ala Pro Ala Asn Trp
            260                 265                 270
Ser Leu Pro Phe Val Thr Arg Arg Arg Arg Arg Ala Gly Pro Pro Arg
        275                 280                 285
Ala Ala Ser Ser Thr Ala Arg Leu Glu Gly Thr Thr
    290                 295                 300
```

<210> 31693
<211> 303
<212> PRT
<213> A.fumigatus

<400> 31693

```
Leu Ala Arg Trp His Arg Trp Ala Met Pro Thr Tyr Leu Arg Ala Asp
1               5                   10                  15
Val Gly Gly Gly Cys Gly Cys Ile Cys Thr Tyr Ile Tyr Gly Trp Met
            20                  25                  30
Gly Gly Cys Leu Arg Ile Pro Thr Asp Gly Cys Arg Arg Arg Ala Met
        35                  40                  45
Pro Ala Ser Val Glu Ala Asp Gly His Val Arg Val Ala Ala Ser Val
    50                  55                  60
Pro Val Asp Gly Ala Arg Leu Ser Gly Ala Asp Lys Gly Ala Arg Ala
65                  70                  75                  80
Pro Ala Asn Trp Ser Pro Leu Ala Pro Pro Val Ser Val Trp Val Ser
                85                  90                  95
Leu Asp Pro Val Ser Val Pro Gly Ala Arg Arg Pro Thr Gly His Pro
            100                 105                 110
Arg Cys Leu Arg Val Cys Arg Ser Ala Ser Val Cys Pro Trp Arg Ala
        115                 120                 125
Pro Leu Pro Ala Gly Gly Arg Pro Ala Gln Gly Ala Pro Ala Asn Trp
    130                 135                 140
Ser Pro Cys Arg Pro Pro Ala Arg Arg Pro Pro Pro Arg Gln Leu Gly
145                 150                 155                 160
Gln Pro Thr Gly Arg Arg Ala Leu Ala Cys Ala Pro Pro Pro Pro Pro
                165                 170                 175
Pro Pro Arg Pro Pro Arg Pro Pro Arg Pro Pro Phe Val Ala Leu Ala
            180                 185                 190
Arg Ala Thr Leu Cys Ser Pro Arg Gly Arg Ala Pro Thr Gly Pro Pro
        195                 200                 205
Ala Pro Leu Asn Arg Leu Pro Ser Thr Gly Thr Leu Ala Arg Ala Ala
    210                 215                 220
Gly Gly Pro Ser Pro Thr His Thr His Arg Pro Arg Pro Ala His His
225                 230                 235                 240
```

```
Arg Ala Arg Lys Arg Ser Arg Val Arg Thr Ser Phe Arg Gly Glu Ala
                245                 250                 255
His Leu Arg Arg Gln Thr Ala Arg Arg Pro Cys Gly His Val Pro Gln
            260                 265                 270
Pro Thr Gly His Cys Pro Ser Ser Pro Gly Gly Gly Gly Ala Arg Val
        275                 280                 285
Pro Arg Ala Pro Arg Pro Gln Pro Pro Gly Trp Lys Val Leu Pro
    290                 295                 300
```

<210> 31694
<211> 147
<212> PRT
<213> A.fumigatus

<400> 31694

```
Trp Lys Asp Gly Ala Gly Gly Trp Ile Trp Trp Asn Thr Asp Asp Asp
1               5                  10                  15
Val His Asp Gly Val Pro Ile Arg Gly Val Ser Gly Met Gly Trp Gly
            20                  25                  30
Gly Arg Gly Glu Glu Val Ala Glu Cys Gly Gly Cys Gly Glu Ala Gly
        35                  40                  45
Cys Gly Gly Glu Ser Gly Gly Gly Gly Val Gly Ala Glu Asp Val Cys
    50                  55                  60
Gly Trp Val Glu Val Glu Arg Asn Ala Gly Ala Val His Gly Glu Gly
65                  70                  75                  80
Glu Leu Gly Pro Ala Arg Glu Gly Ser Gln Thr Pro Val Leu Gln Gly
                85                  90                  95
Cys Ala Gln Cys Val Tyr Val Gln Ala Trp Arg Glu Glu Gly Ala Leu
            100                 105                 110
Leu Gly Ala Phe Leu Gly Val Phe Asp Leu Glu Val Gly Gly Glu Asn
        115                 120                 125
Asp Asp Leu Val Pro Val Ala Gly Leu Asp Ser Glu Ser Val Arg Phe
    130                 135                 140
Trp Gly Trp
145
```

<210> 31695
<211> 138
<212> PRT
<213> A.fumigatus

<400> 31695

```
Ser Ser Arg Ser Thr Glu Thr His His Gln Pro Gln Asn Arg Thr Leu
1               5                  10                  15
Ser Leu Ser Arg Pro Ala Thr Gly Thr Lys Ser Ser Phe Ser Pro Pro
            20                  25                  30
Thr Ser Arg Ser Asn Thr Pro Arg Lys Ala Pro Arg Arg Ala Pro Ser
        35                  40                  45
Ser Arg Gln Ala Trp Thr Tyr Thr His Cys Ala Gln Pro Cys Lys Thr
    50                  55                  60
Gly Val Trp Leu Pro Ser Arg Ala Gly Pro Asn Ser Pro Ser Pro Cys
65                  70                  75                  80
Thr Ala Pro Ala Leu Arg Ser Thr Ser Thr His Pro His Thr Ser Ser
                85                  90                  95
Ala Pro Thr Pro Pro Pro Pro Leu Ser Pro Pro Gln Pro Ala Ser Pro
            100                 105                 110
```

```
His Pro Pro His Ser Ala Thr Ser Ser Pro Arg Pro Pro Gln Pro Ile
        115                 120                 125
Pro Glu Thr Pro Leu Met Gly Thr Pro Ser
    130                 135

<210> 31696
<211> 185
<212> PRT
<213> A.fumigatus

<400> 31696
Gly Gln Ser Arg Leu His Gly Pro Ser Arg Ala Val Gln Pro Arg His
1               5                   10                  15
Ile Thr Ser Pro Arg Thr Gly Arg Ser Arg Cys Arg Asp Pro Arg Arg
            20                  25                  30
Glu Pro Asn His His Ser Arg Pro Arg Pro Pro Asp Arg Thr His Gln
        35                  40                  45
Glu Arg His Arg Gly Glu Pro Leu Pro Pro Ala Arg Pro Gly Arg Thr
    50                  55                  60
His Ile Ala His Ser Pro Ala Lys Arg Val Ser Gly Cys Pro Arg Ala
65                  70                  75                  80
Arg Ala Pro Ile His Leu Pro His Ala Gln His Pro Arg Tyr Ala Pro
                85                  90                  95
Pro Arg Pro Ile His Thr His Leu Arg His Arg His His Pro Leu Arg
            100                 105                 110
Ser Leu Arg Arg Ser Pro Pro Arg His Ile Arg Arg Thr Pro Arg Pro
        115                 120                 125
Pro Pro Leu Ala His Pro Ser Pro Tyr Gln Lys Pro Pro Leu Trp Glu
    130                 135                 140
Pro Arg His Glu Arg His His Gln Cys Ser Thr Lys Ser Ser Leu Arg
145                 150                 155                 160
Arg Arg Pro Ser Thr Thr Ser Pro Pro Pro Ala Gly Gly Gln Asn His
                165                 170                 175
Ser Pro Ser Glu Glu Glu Pro Pro Pro
            180                 185

<210> 31697
<211> 825
<212> PRT
<213> A.fumigatus

<400> 31697
Tyr Ser Val Leu Val Ala Ala Pro Ile Val Arg Ser Phe Pro Gln Val
1               5                   10                  15
Val Arg Ser Asn Arg Pro Arg Ala Ala Val Asp Asp Ala Arg Arg Leu
            20                  25                  30
Gly Val Arg Thr Gly Arg Thr Thr Ile Ser Asp Lys Ile Cys Val Leu
        35                  40                  45
Arg Ser Gln Tyr Glu Ala Lys Gly Phe Ser Thr Ser Thr Ser Arg Trp
    50                  55                  60
Gln Glu Lys Ile Leu Asp Arg Thr Arg Asn Ile Gly Ile Ile Ala His
65                  70                  75                  80
Ile Asp Ala Gly Lys Thr Thr Thr Thr Glu Arg Met Leu Tyr Tyr Ser
                85                  90                  95
Gly Phe Thr Arg Arg Ile Gly Asp Val Asp Glu Gly Ser Thr Val Thr
            100                 105                 110
```

```
Asp Phe Leu Pro Ala Glu Arg Ala Arg Gly Ile Thr Ile Gln Ser Ala
        115                 120                 125
Ala Ile Thr Phe His Trp Pro Pro Thr Ala Gly Glu Ser Asp Lys Gln
    130                 135                 140
Glu Val Gln Thr Pro Arg Ser Ala Ser Ser His Thr Ile Asn Leu Ile
145                 150                 155                 160
Asp Thr Pro Gly His Ala Asp Phe Thr Phe Glu Val Leu Arg Ser Leu
                165                 170                 175
Arg Ile Leu Asp Gly Ala Val Cys Ile Leu Asp Gly Val Ala Gly Val
            180                 185                 190
Glu Ala Gln Thr Glu Arg Val Trp His Gln Ala Ser Thr Tyr Arg Ile
        195                 200                 205
Pro Arg Ile Val Tyr Val Asn Lys Leu Asp Arg Asp Gly Ala Ala Phe
    210                 215                 220
Gly Arg Thr Val Arg Glu Val Gly Ser Arg Leu Gly Ala Phe Pro Ala
225                 230                 235                 240
Val Cys Gln Ile Pro Trp Phe Glu Asn Gly Asn Gly Arg Phe Val Gly
                245                 250                 255
Val Ala Asp Ala Ile Asn Leu Gln Gly Leu Arg Trp Glu Glu Gly Asp
            260                 265                 270
Gly Lys Val Val Lys Met Leu Ser Leu Glu Gln Leu Tyr Ala Glu Glu
        275                 280                 285
Ala Gln Leu Gly Lys Glu Leu Arg Arg Ala Arg Ile Ala Leu Val Glu
    290                 295                 300
Leu Leu Ser Glu His Asp Glu Ala Met Val Glu Lys Phe Leu Glu Cys
305                 310                 315                 320
Asp Glu Asn His Leu Ala Val Pro Pro Gln Asp Ile Leu Glu Ser Leu
                325                 330                 335
Arg Arg Cys Leu Leu Glu Glu Ser Gly Ser Asn Ile Val Pro Ile Phe
            340                 345                 350
Ala Gly Ala Ser Phe Arg Asn Ile Gly Val Gln Pro Leu Leu Asp Ala
        355                 360                 365
Val Val Asn Leu Leu Pro Ser Pro Leu Glu Ala Pro Asp Pro Glu Val
    370                 375                 380
Ser Ile Gly Gly Val Gln Gly Gly Leu Gln Arg Leu Leu Ser Gly Glu
385                 390                 395                 400
Leu Leu Val Glu Ser Gly Glu Lys Ser Gln Ser Pro Lys Gly Lys Gln
                405                 410                 415
Arg Lys Ser Val Ala His Ala Glu Ser Gln Asn Val Met Lys Asn Leu
            420                 425                 430
Gln Gly Cys Ala Leu Ala Phe Lys Val Val Asn Asp Ala Lys Arg Gly
        435                 440                 445
Val Leu Val Tyr Val Arg Val Tyr Ser Gly Ser Leu Asp Arg Asn Cys
    450                 455                 460
Val Leu Phe Asn Thr Asn Leu Asn Val Ser Glu Arg Ala Pro Arg Leu
465                 470                 475                 480
Leu Lys Met Tyr Ala Asn Asp Ala Val Glu Val Asp Ser Ile Pro Glu
                485                 490                 495
Gly His Ile Gly Val Val Val Gly Leu Lys His Ala Arg Thr Gly Asp
            500                 505                 510
Thr Leu Val Ser Tyr Ala Gly Asn Lys Pro Thr Pro Pro Lys Pro Leu
        515                 520                 525
Asn Thr Leu Gln Leu Arg Pro Ile Asn Val Pro Pro Pro Val Phe Phe
    530                 535                 540
Ala Ser Val Glu Pro His Ser Leu Ser Glu Glu Lys Lys Val Gln Glu
545                 550                 555                 560
```

```
Cys Leu Ala Leu Leu Leu Arg Glu Asp Pro Ser Leu His Val Ala Val
                565                 570                 575
Asp Glu Asp Ser Gly Gln Thr Leu Leu Ser Gly Met Gly Glu Leu His
            580                 585                 590
Leu Glu Ile Ala Arg Asp Arg Leu Ile Asn Asp Leu Lys Ala Lys Ala
        595                 600                 605
Thr Met Gly Arg Ile Glu Ile Gly Tyr Arg Glu Thr Pro Leu Gly Pro
    610                 615                 620
Ser Pro Ala Val Thr Lys Ile Phe Asp Lys Glu Ile Ala Gly Arg Lys
625                 630                 635                 640
Gly Lys Ala Gly Cys Thr Ala Leu Val Glu Pro Phe Asn Arg Asp Thr
                645                 650                 655
Ser Pro Ala Pro Glu Pro Asp Ala Leu Ala Val Glu Thr Arg Asp Gly
            660                 665                 670
Asn Gln Ile Ile Ile Leu Ala Pro Asp Leu Gln Ile Glu His Thr Lys
        675                 680                 685
Lys Gly Thr Glu Glu Ser Pro Phe Leu Pro Pro Gly Leu Asp Val His
    690                 695                 700
Thr Leu Arg Thr Ala Leu Gln Asn Gly Cys Leu Ala Ala Leu Ala Arg
705                 710                 715                 720
Gly Pro Gln Phe Thr Phe Pro Met His Ser Thr Arg Val Thr Leu His
                725                 730                 735
Leu Asp Pro Ser Thr His Ile Phe Gly Thr Asp Thr Thr Pro Ser Ala
            740                 745                 750
Leu Ser Ala Ala Ala Arg Leu Ala Thr Ser Ala Ala Leu Arg Asp Leu
        755                 760                 765
Leu Pro Ser Pro Thr Pro Ala His Thr Arg Asn Pro Pro Tyr Gly Asn
    770                 775                 780
Pro Val Met Asn Val Ile Ile Ser Val Pro Pro Asn Pro Ala Ser Gly
785                 790                 795                 800
Ala Val Leu Pro Leu His Leu Arg Leu Pro Arg Ala Gly Lys Ile Ile
                805                 810                 815
Leu Pro Pro Lys Arg Asn Leu Pro Leu
            820                 825
```

<210> 31698
<211> 190
<212> PRT
<213> A.fumigatus

<400> 31698

```
Asn Ser Gly Ser Leu Ser Trp Ala Ser Leu Gly Met Leu Lys Ile Thr
1               5                   10                  15
Met Ala Asn Pro Met Pro Lys Asp Gln Gly Tyr Gly His Gly Leu Cys
            20                  25                  30
Asn Lys Asn Lys Cys Leu Val Gln Lys Arg Ala Ser Val Lys Gly Lys
        35                  40                  45
Arg Glu Ile Asn Pro Leu Glu Gly Pro Pro Arg Asn Glu Ala Asn Pro
    50                  55                  60
Pro Ala Thr His Gln Lys Lys Gln Pro Thr Lys Gln Ala Lys Lys Ala
65                  70                  75                  80
Ala Gly Thr Ala Pro Gln Leu Ile Ile Phe Lys Met Lys Phe Ile Ala
                85                  90                  95
Val Ala Asn Ala Leu Ile Val Ala Leu Cys Ser His Val Ala Leu Ala
            100                 105                 110
Ser Thr Ile Gly His Pro Ser Leu Met Pro Arg Glu Asp Ala Leu Ser
```

```
        115                 120                 125
Asp Asn Asn Asn Asn Ser Thr Val Ala Thr Pro Tyr Gly Asn Val Val
    130                 135                 140
Ser Thr Val Leu Asp Asp Gly Lys Lys Lys Val Glu Phe Phe Asp Val
145                 150                 155                 160
Asp Gly Thr Leu Glu Val Thr Ala Ile Glu Ala Ala Asp Gly Ser Thr
                165                 170                 175
Pro Leu Ala Pro Ser Ile Thr Pro Phe Lys Ile His Val Asn
            180                 185                 190
```

<210> 31699
<211> 170
<212> PRT
<213> A.fumigatus

<400> 31699

```
Arg Lys Tyr Ala Phe Gly Ser Leu His His Ser Phe Gln Asp Thr Arg
1               5                   10                  15
Lys Leu Thr Asp Pro Ala Ala Ile Phe Tyr Asp Ala Glu Gly Arg Glu
            20                  25                  30
Val Asn Leu Ala Asp Met Asp Glu Asp Asp Asp Asp Glu Asp Leu Glu
        35                  40                  45
Lys Arg Val Pro Lys Trp Arg Leu Ala Ile Lys Phe Ala Lys Leu Ile
    50                  55                  60
Ala Lys Tyr Gly Lys Arg Ala Trp Ser Tyr Ile Tyr Cys Val Gly Thr
65                  70                  75                  80
Ala Pro Phe Trp Lys Cys Gly Asp Glu Val Ser Thr Pro Ala Gln Gly
                85                  90                  95
Glu Arg Leu Trp Leu Met Arg Tyr Arg Ser Ser Leu Thr Val Leu Leu
            100                 105                 110
Leu Ala Ala Leu Pro Gly Thr Ala Thr Arg Glu Pro Ser Val Leu Asp
        115                 120                 125
Gly Lys Phe Thr Ser Thr Ala Ser Arg Cys Val Gln Val Arg Arg Ile
    130                 135                 140
Leu Ser Arg Gly Leu Glu Thr Trp Pro Gln Thr Val Tyr Thr Glu Cys
145                 150                 155                 160
Cys Leu Phe Leu Asn Ser Asp Met Ala Leu
                165                 170
```

<210> 31700
<211> 83
<212> PRT
<213> A.fumigatus

<400> 31700

```
Lys Arg Phe Ser Thr Phe Ala Val Leu Gly Ala Ser Asp Phe Tyr His
1               5                   10                  15
Ser Gly Leu Gly Pro Gln Pro Ser Lys Leu Glu Asn Arg Asn Ser Arg
            20                  25                  30
Gly Glu Thr Leu Asn Leu Arg Gln Ala Leu Lys Gly Phe Val His Thr
        35                  40                  45
Arg Thr Val Tyr Arg Met Ala Ala Asp Leu Asp Thr Gly Lys Ile Lys
    50                  55                  60
Asn Trp Arg Ser Ile Val Thr Leu Ile Val Phe Ile Ile Thr Ser Met
65                  70                  75                  80
Ser Ala Arg
```

<210> 31701
<211> 229
<212> PRT
<213> A.fumigatus

<400> 31701
Met Trp Thr Ala Ser Asp Pro Lys Arg Leu Thr Leu Ala Asp Ile Ile
1 5 10 15
Val Leu Phe Pro Phe His Ile Pro Ile Tyr Val Pro Arg Ala Phe Ser
20 25 30
Asn Ala Val Leu Asp Phe Leu Ser Lys Leu Arg Ile Ile Pro Pro Arg
35 40 45
Glu Asn Arg Phe Gln Pro Asp Asp Gln Glu Asp Ala Asn Gly Lys Leu
50 55 60
Lys Pro Tyr Val Arg Met Asn Phe Pro Leu Asn Phe Val Thr Ala Pro
65 70 75 80
Leu Ile Ala Asp Leu Phe Leu Leu Ala Ile Met Ala Ile Gly Arg Glu
85 90 95
Glu Val Arg Gly Gly Thr Leu Gly Ala Asp Asn Ile Ile Pro Ile Asp
100 105 110
Ile Met Ala Phe Phe Leu Thr Leu Ala Tyr Ile Ala Ile Ser Ile Asp
115 120 125
Ala Ser Gly Leu Ile Arg Tyr Leu Ala Phe Lys Val Leu Gln Lys Gly
130 135 140
Gly Arg Val Gly His Arg Leu Phe Phe Tyr Leu Tyr Ala Phe Phe Phe
145 150 155 160
Gly Leu Gly Ser Phe Ile Gly Asn Asp Pro Ile Ile Leu Ser Gly Thr
165 170 175
Ala Phe Leu Ala Tyr Met Thr Arg Val Ser Ser Asn Ile Val His Pro
180 185 190
Arg Ala Trp Ile His Ser Gln Phe Ala Val Ala Asn Ile Ala Ser Ala
195 200 205
Ile Leu Val Ser Ser Asn Pro Thr Asn Leu Val Ala Asn Gly Gly Leu
210 215 220
Pro Gly Gln Ile His
225

<210> 31702
<211> 336
<212> PRT
<213> A.fumigatus

<400> 31702
Leu Glu Tyr Gln Ala Thr Ser Ser Ile Gln Glu Pro Gly Phe Thr Val
1 5 10 15
Ser Leu Leu Leu Pro Ile Ser Pro Pro Arg Ser Leu Ser Pro Arg Thr
20 25 30
Gln Pro Ile Ser Leu Leu Thr Gly Ala Phe Gln Val Lys Phe Ile Glu
35 40 45
Tyr Thr Ala Asn Met Ile Val Pro Val Val Val Pro Ala Ile Val Leu
50 55 60
Phe Pro Phe Leu Leu Tyr Ile Ile Phe Ala Asp Glu Ser Leu Ile Pro
65 70 75 80
Pro Ser Ile Lys Met His Glu Leu Thr Glu Glu Glu Lys Glu Lys Lys

```
                85                  90                  95
Pro Val Asn Pro Asn Ile Pro His Ala Arg Gly Arg Ala Asp Glu Gln
            100                 105                 110
Glu Asp Leu Ala Asp Asp Glu Gln Lys Leu Ser Leu Glu Glu Ile Met
        115                 120                 125
Asn Pro Phe Leu Asp Lys Gly Gly Ala Ala Phe Gly Ala Leu Ile Met
    130                 135                 140
Ala Ala Thr Leu Ile Thr Leu Leu Ala Leu Asn Ala Ser Ser Gln Lys
145                 150                 155                 160
Gly His Pro Lys Pro Val Tyr Trp Val Thr Leu Pro Ala Ala Gly Val
                165                 170                 175
Met Leu Cys Trp Asp Leu Ala Phe Gly Trp Tyr His Arg Arg Glu Thr
            180                 185                 190
Arg Glu Ile Ala Arg Lys Gly Arg Ala Glu Ile Glu Gln Ala Arg Ala
        195                 200                 205
Glu Arg Ala Leu Arg Asp Glu Glu Thr Met Arg Ala Gln Gln Ile Ala
    210                 215                 220
Glu Ala Tyr Glu Phe Ala Glu Ser Thr Asp Ala Arg Leu Gln Lys Glu
225                 230                 235                 240
Pro His Pro Glu Ala Gly Thr Asp Lys Gly Asn Thr Ala Tyr Val Thr
                245                 250                 255
Asn Ile Arg Pro Ser Asp Arg Ala Ser Thr Gly Phe Ser Ser Gln Met
            260                 265                 270
Ser Asp Gly Gln Ser Gln Thr Leu Ala Ser Pro Leu Glu Ser Ser Ile
        275                 280                 285
Ser Thr Leu Ala Pro Lys Asp Asp Pro Leu Gln Asn Gly Gln Phe Thr
    290                 295                 300
Thr Asp Ala Met Ser Thr Leu Asn Glu Lys Gln Glu Leu Pro Thr Ser
305                 310                 315                 320
Ala Ser Ser Pro Arg Gly Trp Lys Asp Pro Arg Leu Ala Leu Leu Asn
                325                 330                 335
```

<210> 31703
<211> 230
<212> PRT
<213> A.fumigatus

<400> 31703

```
Val Ile Ala Thr Tyr Leu Ala Thr Lys Tyr Leu Leu Leu Leu Ala Thr
1               5                   10                  15
Thr Gly Ala Asp Met Ala Arg Thr Asn Lys Arg Lys Arg Arg Glu Ala
            20                  25                  30
Asp Cys Ser Asp Asp Glu Asp Pro Val Gly His Pro Ser Gly Asn Thr
        35                  40                  45
Asn Gly Phe Gly Val Ala Arg Thr Leu Ser Leu Leu His Asp Ala Lys
    50                  55                  60
Pro Gln Ala Ala Asp Asp Ser Ala Ile Ala Thr Ala Gly Ser Asp Ala
65                  70                  75                  80
Thr Pro Thr Glu Gly Ala His Asp Gln Ala Lys Asp Gly Val Ser Val
                85                  90                  95
Gln Arg Pro Thr Lys Lys Lys Arg Val Asp Gly Glu Lys Thr Lys Tyr
            100                 105                 110
Pro Val Leu Thr Tyr Val Glu Gly Arg Leu Gln Ser Ser Ile Arg Ile
        115                 120                 125
Ser Asp Leu Gln Asn Leu Leu Leu Tyr Cys Phe Ala Asp Gly Ile Ala
    130                 135                 140
```

```
Pro Gln Trp Ile Ser Ile Lys His Ser Gly His Ile Arg Lys Ile Val
145                 150                 155                 160
Val Leu Met Val Pro Gly Leu Glu Met Gly Met Phe Asp Gly Thr Val
                165                 170                 175
Pro Leu Lys Pro Gln Pro Glu Asp Glu Asp Ser Arg Ser Ser Gln Ala
            180                 185                 190
Ser Asn Ala Glu Gln Lys Asp Pro Asp Ala Asn Lys Ser Ala Glu Glu
        195                 200                 205
Asp Glu Asp Lys Ala Asn Phe Leu Arg Trp Lys Gln Gly Leu Pro Leu
    210                 215                 220
Glu Asp Arg Ser His Arg
225                 230
```

<210> 31704
<211> 327
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (2),(6),(23),(57),(104),(263)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31704

```
Asn Xaa Leu Lys Arg Xaa Lys Ala Asn Pro Pro Glu Ser Asp Thr Gly
1               5                   10                  15
Thr Met Arg Arg Arg Phe Xaa Trp Asp Asn Lys Thr Met Glu Glu Arg
            20                  25                  30
Gln Tyr Trp Phe Ser Tyr Glu Asp Tyr Met Asn Asn Glu Thr Ala Phe
        35                  40                  45
Ile Lys Ser Met Arg His Leu Ala Xaa Met Gly Ile Ile Phe Val Lys
    50                  55                  60
Asn Ile Pro Asp Ser Arg Glu Met Val Glu Lys Ile Ala Thr Lys Met
65                  70                  75                  80
Gly Pro Leu Arg Asn Thr Phe Tyr Gly Pro Thr Trp Asp Val Arg Ser
                85                  90                  95
Val Pro Lys Ala Pro Asn Val Xaa Tyr Thr Asn Val Phe Leu Gly Phe
            100                 105                 110
His Met Asp Leu Met Tyr Met Asn Glu Pro Pro Gly Phe Gln Leu Leu
        115                 120                 125
His Cys Leu Glu Asn Ser Cys Glu Gly Gly Glu Ser Leu Phe Val Asp
    130                 135                 140
Gly Phe Arg Val Ala Glu Leu Ile Arg Trp Lys Tyr Pro Glu Gln Phe
145                 150                 155                 160
Glu Asp Leu Thr Lys Leu Arg Leu Asn Tyr Glu Tyr Asn His Lys Glu
                165                 170                 175
His Ile Tyr Asn Asn Ser Trp Pro Val Val Glu Thr Glu Asp Gly Asp
            180                 185                 190
Pro Lys Lys Arg Ile Leu His Val Asn Tyr Ser Pro Pro Phe Gln Ala
        195                 200                 205
Pro Leu Leu Ser Asp Asp Asn His Gln Met Pro Trp Ile Glu Tyr Ser
    210                 215                 220
Arg Ala Leu Arg Ala Phe Ala Arg Glu Ile Glu Arg Pro Tyr Asn Val
225                 230                 235                 240
Phe Gln Leu Lys Leu Asn Pro Gly Glu Cys Val Ile Phe Glu Ile Arg
                245                 250                 255
```

```
Arg Ile Leu His Ala Arg Xaa Gln Phe Asn Thr Asp Lys Gly Lys Arg
            260                 265                 270
Trp Leu Ser Gly Thr Tyr Val Asp Glu Asp Asp Val Leu Ser Thr Phe
        275                 280                 285
Arg Lys Cys Arg Asn Thr Gln Tyr His Thr Trp His Trp Thr Arg Val
    290                 295                 300
Thr Gly Pro Lys His Ala Thr Glu Ala Ala Ala Lys Gly Glu Ala Ile
305                 310                 315                 320
Ala Ala Asn His Arg Thr Glu
                325
```

<210> 31705
<211> 213
<212> PRT
<213> A.fumigatus

<400> 31705

```
Leu Pro Val Asn Gln Lys Val Cys Ser Val Arg Gln Ser Asn Pro Thr
1               5                   10                  15
Thr Cys Ala Pro Arg His Ser Leu Ser Ser Thr Met Ser Thr Leu Asn
            20                  25                  30
Glu Ile Thr Ser Asp Ala Asp Phe Ser Ala His Thr Ser Ser Leu Pro
        35                  40                  45
Pro Ser Thr Leu Leu Val Leu Tyr Phe His Ala Pro Trp Ala Ala Pro
    50                  55                  60
Cys Ala Gln Met Arg Ala Val Leu Ser Ala Leu Ala Ser Gln His Pro
65                  70                  75                  80
Val Thr Thr Pro Pro Thr Ile Ser Phe Val Ser Val Asn Ala Glu Glu
                85                  90                  95
Leu Pro Asp Ile Ser Glu Glu Tyr Asn Val Thr Ala Val Pro Tyr Val
            100                 105                 110
Val Leu Ile Arg Asn Gly Gln Ile Leu Glu Ser Ile Ser Gly Ser Asp
        115                 120                 125
Ala Val Lys Val Arg Asp Ala Val Glu Arg His Ala Gly Ala Gly Ser
    130                 135                 140
Gly Ala Gly Ala Asp Gly Ala Asn Lys Thr Ala Ile Pro Pro Pro Leu
145                 150                 155                 160
Thr Ala Thr Pro Arg Glu Asn Ala Pro Ala Ala Ala Ala Gln Pro Ala
                165                 170                 175
Ala Pro Ser Thr Gln Ala Leu Thr Pro Glu Gln Ser Lys Glu Ala Leu
            180                 185                 190
Phe Ala Arg Leu Ala Glu Leu Val Lys Gly Arg Ala Gly Tyr Ala Leu
        195                 200                 205
His Glu Gly Tyr Thr
    210
```

<210> 31706
<211> 108
<212> PRT
<213> A.fumigatus

<400> 31706

```
Lys Ala Ala Pro Val Met Leu Phe Met Lys Gly Thr Pro Ser Ala Pro
1               5                   10                  15
Gln Cys Gly Phe Ser Arg Gln Leu Val Ala Ile Leu Arg Glu Lys Ser
            20                  25                  30
```

```
Val Lys Tyr Gly Phe Phe Asn Ile Leu Ala Asp Glu Asp Val Arg Gln
        35                  40                  45
Gly Leu Lys Glu Phe Ala Asp Trp Pro Thr Phe Pro Gln Leu Trp Val
    50                  55                  60
Glu Gly Glu Leu Val Gly Gly Leu Asp Ile Val Arg Ser Ser Ile Val
65                  70                  75                  80
Ala Pro Ala Ala Arg Lys Ser Leu Leu Thr Asp Met Phe Leu Pro His
                85                  90                  95
Arg Ser Arg Lys Arg Ser Thr Thr Thr Leu Ile Ser
            100                 105
```

<210> 31707
<211> 279
<212> PRT
<213> A.fumigatus

<400> 31707

```
Arg Cys Val Ala Lys Ala Val Ser Thr Pro Lys Asn Pro Pro Lys Phe
1               5                   10                  15
Phe Pro Ser Ser Thr Leu Ser Asp His Phe Thr Ser Gly Arg Cys Ser
            20                  25                  30
Ile Gly Leu Arg Phe Pro Ser Ser Ala Val Phe Cys Arg Leu Ser Thr
        35                  40                  45
Leu Asp Phe Leu Leu Ser Cys His Cys Ser Cys Ser Phe Tyr Asn Leu
    50                  55                  60
Ile Ile Lys Met Ala Gly Leu Gln Ser Arg Ser Ala Met Thr Leu Pro
65                  70                  75                  80
Ser Ser Leu Ser Ala Ala Phe Arg Asn Leu Ser Leu Ser Val Pro Thr
                85                  90                  95
Arg Ser Phe Ser Thr Thr Leu Ala Ala Gln Lys Thr Lys Gln Leu Pro
            100                 105                 110
Asp Tyr Ile Pro Pro Tyr Pro Tyr Gly Pro Asn Tyr Ile Phe Lys Gln
        115                 120                 125
Ser Asn Ser Gly Leu Tyr Gly Gly Ala Met Ile Gln Phe Gly Asn Lys
    130                 135                 140
Ile Ser Lys Gly Arg Asn Glu Gly Lys Thr Arg Arg Phe Trp Lys Pro
145                 150                 155                 160
Asn Val Arg Arg Lys Lys Leu Trp Ser Glu Ala Leu Gly Glu Tyr Leu
                165                 170                 175
Phe Ile Lys Val Thr Arg Lys Ala Leu Arg Thr Ile Trp Lys Ser Gly
            180                 185                 190
Gly Leu Asp Asn Tyr Leu Leu Asp Asp Arg Pro Gly Arg Ile Lys Glu
        195                 200                 205
Leu Gly Ile Phe Gly Trp Glu Leu Arg Trp Lys Val Met Gln Thr Pro
    210                 215                 220
Lys Ile Gln Glu Gln Phe Arg Gln Glu Arg Lys Arg Leu Gly Leu Pro
225                 230                 235                 240
Glu Pro Pro Ser Phe Glu Glu Trp Val Lys Gln Lys Glu Ala Glu Val
                245                 250                 255
Lys Ala Lys Val Glu Glu Glu Ile Asn Ile Lys Glu Ala Thr Lys Pro
            260                 265                 270
Thr Tyr Asn Glu Lys Gln Tyr
        275
```

<210> 31708
<211> 88

<212> PRT
<213> A.fumigatus

<400> 31708
Gln Ala Cys Gly Val Phe Val Asp Leu Ile Lys Ala Lys Lys Met Ala
1 5 10 15
Gly Arg Ala Ile Met Leu Ala Gly Gly Pro Gly Thr Gly Lys Thr Ala
20 25 30
Leu Ala Leu Ala Val Ser Gln Glu Leu Gly Thr Lys Val Pro Phe Cys
35 40 45
Pro Ile Val Gly Ser Glu Ile Tyr Ser Ala Glu Val Lys Lys Thr Glu
50 55 60
Ala Leu Met Glu Asn Phe Arg Arg Ala Ile Gly Met Leu Phe Gln Thr
65 70 75 80
Arg Leu Ser Gly Trp Gly Cys Asp
85

<210> 31709
<211> 78
<212> PRT
<213> A.fumigatus

<400> 31709
Glu Asp Pro Phe Ser Phe Gln Ala Arg Pro Gln Tyr Phe Ala Met Val
1 5 10 15
Gln Ile Ser Glu Val Lys Gly Ser Ser Arg Glu Asn Arg Thr Ala Ala
20 25 30
His Thr His Ile Lys Gly Leu Gly Leu Arg Pro Asp Gly Thr Ala Glu
35 40 45
Pro Ser Ala Asp Gly Phe Val Gly Gln Ala Ala Ala Arg Glu Val Gly
50 55 60
Ser Ile Gln Phe Phe Ser Ser Phe Gly Lys Met Ser Leu Gly
65 70 75

<210> 31710
<211> 162
<212> PRT
<213> A.fumigatus

<400> 31710
Trp Lys Ile Phe Glu Gly Arg Leu Val Cys Cys Phe Arg Arg Val Phe
1 5 10 15
Arg Ala Gly Val Ala Ile Asn Lys Ile Leu Gly Leu Arg Val Arg Glu
20 25 30
Thr Lys Glu Val Tyr Glu Gly Glu Val Thr Glu Leu Thr Pro Glu Glu
35 40 45
Ala Glu Asn Pro Leu Gly Gly Tyr Gly Arg Thr Ile Ser His Leu Ile
50 55 60
Ile Gly Leu Lys Ser Ala Lys Gly Thr Lys Lys Leu Arg Leu Asp Pro
65 70 75 80
Ser Ile Tyr Glu Ala Ile Gln Lys Glu Arg Val Thr Val Gly Asp Val
85 90 95
Ile Tyr Ile Glu Ala Asn Thr Gly Ala Cys Lys Arg Val Gly Arg Ser
100 105 110
Asp Ala Tyr Ala Thr Glu Phe Asp Leu Glu Ala Glu Glu Tyr Val Pro
115 120 125

```
Val Pro Lys Gly Glu Val His Lys Lys Lys Glu Ile Val Gln Asp Val
    130                 135                 140
Thr Leu His Asp Leu Asp Met Ala Asn Ala Arg Pro Gln Val Asp Arg
145                 150                 155                 160
Thr Ser
```

<210> 31711
<211> 226
<212> PRT
<213> A.fumigatus

<400> 31711

```
Arg Arg Glu Thr Cys Thr Asn Leu Leu Tyr Gln Pro Lys Leu Thr Glu
1               5                   10                  15
Glu Glu Leu Thr Arg Arg Ile Ala Ala Ala Lys Glu Asn Ala Ala Lys
            20                  25                  30
Lys Ala Ala Ala Tyr Ala Arg Ala Glu Ala Asp Gln Ala Ser Phe Leu
        35                  40                  45
Glu Arg Glu Lys Ile Ala Glu Glu Lys Arg Leu Gln Glu Arg Gln Asn
    50                  55                  60
Arg Arg Ala Met Asp Ser Glu Arg Glu Arg Asn Arg Leu Arg Lys Leu
65                  70                  75                  80
Glu Ala Leu Gly Gly Arg Glu Trp Asp Ala Thr Lys Arg Glu Glu Asp
                85                  90                  95
Tyr Asn Pro Arg Gly Gly Arg Gly Gln Phe Arg Arg Gly Met His Gly
            100                 105                 110
Gly Val Ser Gly Tyr Val Arg Arg Asp Phe Asp Asp Ala Arg Thr Glu
        115                 120                 125
Glu Asp Gln Glu Gly Arg His His Leu Asn His Arg Gly Arg Gly Arg
    130                 135                 140
Gly Gly Arg Gly Gly Arg Gly Arg Gly Ala Ser Arg Ala Ala Pro Phe
145                 150                 155                 160
Asp Gly Ala Ser Asp Glu Ala Ala Ala Ala Ala Ser Pro Ala Pro Pro
                165                 170                 175
Val Leu Asn Asn Glu Gln Glu Phe Pro Ala Leu Pro Gly Gly His Lys
            180                 185                 190
Pro Thr Asp Lys Thr Val Ser Asp Leu Ala Asp Lys Leu Glu Thr Ser
        195                 200                 205
Leu Ser Pro Val Ser Gly Ala Thr Trp Ala Glu Gln Val Glu Ser Gln
    210                 215                 220
Arg Asp
225
```

<210> 31712
<211> 64
<212> PRT
<213> A.fumigatus

<400> 31712

```
Ala Thr Asn Pro Lys Ser Ser Met Gly Glu Phe Leu Gly Leu Ser Ser
1               5                   10                  15
Gln Lys Gly Ala Ala Ser Ser Asn Phe Glu Gln Arg Ala Gln Gly Ala
            20                  25                  30
Ser Glu Met Ser Ala Lys Asp Thr Ser Cys Asp Thr Glu Asp His Ser
        35                  40                  45
```

```
Phe Met Glu His Gly Pro Gly Phe Gln Leu Ala Leu Pro Thr Ser Gln
    50                  55                  60

<210> 31713
<211> 62
<212> PRT
<213> A.fumigatus

<400> 31713
Pro Pro Thr Thr Met Gly Asp Arg Thr Ala Asp Asn Ala Val Asn His
1               5                  10                  15
Glu Arg Thr Ser Thr Gln Gly Gly Ala Ser Ser Lys Pro Thr Pro Ala
            20                  25                  30
Asn Asn Ala Gly Gly Gly Ser Gly Trp Gly Asp Lys Gly Phe Phe Lys
        35                  40                  45
Gly Gly Thr Gly Thr Glu Gly Pro Gly His Gln Ala Val Ser
    50                  55                  60

<210> 31714
<211> 232
<212> PRT
<213> A.fumigatus

<400> 31714
Leu Ala Asn Arg Arg Cys Thr Val Cys Phe Asn Ser Glu Ser Ile Lys
1               5                  10                  15
Asn Val Glu Ile Leu Pro Cys Gln His Ile Tyr Cys Asp Tyr Cys Phe
            20                  25                  30
Ser Arg Leu Ala Leu Thr Ala Met Ala Asn Glu Gln Leu Phe Pro Pro
        35                  40                  45
Arg Cys Cys Ser Gln Met Ile Pro Thr Asp Gln Val Leu Ser Lys Leu
    50                  55                  60
Thr Glu Lys Glu Lys Ala Leu Phe Lys Leu Lys Ala Arg Glu Tyr Ala
65                  70                  75                  80
Thr Ser Ala Arg Glu Arg Arg Tyr Cys Pro Ala Met Lys Cys Gly Lys
                85                  90                  95
Trp Ile Pro Leu Glu Lys Leu Glu Gly Gln Ser Thr Ala Gln Leu Cys
            100                 105                 110
Pro Tyr Cys Gly Thr Ala Ile Cys Pro Gly Cys Lys Asp Lys Ala His
        115                 120                 125
Ala Pro Gly Lys Cys Ser Phe Asp Pro Gly Leu Thr Glu Phe Leu Glu
    130                 135                 140
Leu Ala Arg Thr Gln Gly Trp Gln Arg Cys Phe His Cys Gly Ala Met
145                 150                 155                 160
Val Glu Leu Asn Glu Gly Cys Pro Arg Ile Thr Cys Arg Cys Gly Ala
                165                 170                 175
Asp Leu Trp Phe Val Leu Thr Leu Thr Ser Ser Leu Ala Val Arg Asp
            180                 185                 190
Thr Asp Ala Ala Lys Leu Gln Leu Trp Trp Thr Met Ala Tyr Leu Pro
        195                 200                 205
Ser Gln Arg Leu Arg Glu Arg Asn Arg Arg Met Pro Asn Arg Arg Ala
    210                 215                 220
Ser Arg Arg Arg Ser Gly Asn Thr
225                 230

<210> 31715
```

<211> 132
<212> PRT
<213> A.fumigatus

<400> 31715
Arg Ile Ser Phe Phe Arg Thr Leu Glu Arg Gln Leu Pro Ser Ser Leu
1 5 10 15
Ala Met Phe Ser Ser Ser Val Arg Gly Val Ala Arg Val Cys Ser Ser
20 25 30
Ile Thr Ser Arg Thr Phe Asn Thr Ser Thr Ala Ala Tyr Ala Ala Glu
35 40 45
Val Lys Ser Leu Gly Val Ile Gly Ala Gly Gln Met Val Ser Met Leu
50 55 60
Pro Tyr Cys Asn Phe Leu Ser Ser Leu Met Leu Ser Asp Leu His Gly
65 70 75 80
Leu Gly Ile Ala Leu Val Asp Ala Ser Lys Ala His Val Pro Val Thr
85 90 95
Leu Ile Asp Asn Thr Gln Ala Ala Leu Asp Lys Gly Leu Ser Phe Ala
100 105 110
Gly Met Leu Asp Thr Ala Gln Leu Ser Ser Thr Leu Leu Trp Leu Leu
115 120 125
Gly Tyr Ser Asn
130

<210> 31716
<211> 249
<212> PRT
<213> A.fumigatus

<400> 31716
Pro Thr Phe Pro Thr Ser Asp Lys Leu Leu Gln Lys Asp Val Ser Lys
1 5 10 15
Glu Arg Leu Thr Gln Glu Ala Ala Asp Ala Val Arg Ala Arg Ile Thr
20 25 30
Pro Ser Leu Asn Met Asp Asp Leu Ser Ser Val Asp Phe Val Ile Glu
35 40 45
Ala Val Pro Glu Ile Pro Asp Leu Lys Thr Ser Ile Phe Ser Lys Leu
50 55 60
Ala Gln Ile Ala Pro Lys His Ala Ile Leu Ala Thr Asn Thr Ser Ser
65 70 75 80
Ile Pro Ile Thr Lys Ile Ala Ala Ala Thr Ser Thr Asp Pro Thr Asp
85 90 95
Leu Gln Ala Pro Ser Arg Val Ile Ser Thr His Phe Met Asn Pro Val
100 105 110
Pro Val Gln Lys Gly Val Glu Ile Ile Ala Gly Leu Gln Thr Ser Lys
115 120 125
Glu Thr Met Asp Thr Ala Ile Ala Phe Val Gln Arg Met Gly Lys Ile
130 135 140
Ala Ala Val Ser Ala Asp Ser Pro Gly Phe Leu Ala Asn Arg Ile Leu
145 150 155 160
Met Pro Tyr Ile Asn Glu Ala Ile Ile Cys Leu Glu Thr Gly Val Gly
165 170 175
Ala Arg Glu Asp Ile Asp Ser Ile Met Lys Asn Gly Thr Asn Val Pro
180 185 190
Met Gly Pro Leu Thr Leu Ala Asp Phe Ile Gly Leu Asp Thr Cys Leu
195 200 205

```
Ala Ile Met Asn Val Leu His Gln Glu Thr Gly Asp Ser Lys Tyr Arg
    210                 215                 220
Pro Ser Gly Leu Leu Lys Arg Met Val Asp Ala Gly Trp Leu Gly Lys
225                 230                 235                 240
Lys Ser Gly Lys Gly Phe Tyr Asp Tyr
                245
```

<210> 31717
<211> 184
<212> PRT
<213> A.fumigatus

<400> 31717

```
Val Ala Asn Ala Cys Ala Val Leu Gln Ala Val Val Lys Thr Asn Lys
1               5                   10                  15
Thr Asn Val Pro Ser Pro Ser Thr Glu Glu Ala Asp Ile Ile Ser Glu
            20                  25                  30
Ser Leu Pro Tyr Pro Val Lys Phe Ala Leu Glu Val His Phe Thr Lys
        35                  40                  45
Arg Ala Tyr Glu Ala Glu Lys Asp Ile Leu Asn Gly Leu Lys Ala Ala
    50                  55                  60
Gly Phe Glu Leu Asp Phe Gly Val Asp Gly Ala Gly Ile Ser Arg Ala
65                  70                  75                  80
Tyr Met Thr Arg Gly Gly Gly Tyr Tyr Ile Asp Val Gly Cys Ser Gln
                85                  90                  95
Leu Ile Ala Asp Gly Lys Ile Lys Ile Lys Arg Ser Pro Glu Gly Ile
            100                 105                 110
Ala Gly Phe Asn Asp Arg Gly Leu Leu Leu Arg Asp Gly Ser Ala Leu
        115                 120                 125
Asp Ala Asp Ile Val Val Leu Ala Thr Gly Tyr Asp Asn Met Arg Thr
    130                 135                 140
Thr Val Arg Lys Ile Leu Gly Asn Arg Val Ala Asp Arg Cys Lys Asp
145                 150                 155                 160
Val Trp Asp Leu Asp Glu Glu Gly Glu Val Asn Ala Val Gly Gln Pro
                165                 170                 175
Phe Leu Asp Tyr Cys Gln Gln Cys
            180
```

<210> 31718
<211> 69
<212> PRT
<213> A.fumigatus

<400> 31718

```
Gly Gln Cys Gly Arg Ser Thr Leu Ser Gly Leu Leu Pro Thr Met Leu
1               5                   10                  15
Ile Lys Asp Gly Gln Met Trp Arg Pro Ser Gly His Pro Gly Phe Trp
            20                  25                  30
Phe Met Gly Gly Asn Leu Ala Leu Cys Arg Ile Tyr Ser Lys Phe Leu
        35                  40                  45
Ala Leu Gln Ile Lys Ala Ile Glu Val Gly Leu Ala Ser Gln Asp Thr
    50                  55                  60
Val His Ala Lys Leu
65
```

<210> 31719

<211> 70
<212> PRT
<213> A.fumigatus

<400> 31719
Arg Lys Ser Thr Gly Gly Lys Ser Ser His Thr Arg Ser Ala Pro Ser
1 5 10 15
Arg Trp Pro Ser Met Pro Ala Pro Thr Pro Pro Phe Leu Thr Leu Tyr
20 25 30
Pro Lys Pro Tyr Gly Pro Arg Arg Pro Asn Arg Ser Lys Gln Thr Ser
35 40 45
Ser Leu Ile Pro Ser Ile Val Phe Asp Pro Ile Thr Ala Ser Gly Asn
50 55 60
Pro Arg Gly Thr Pro Gly
65 70

<210> 31720
<211> 738
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (36),(38)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31720
Ala Arg Arg Ser Arg Ala Gln Val Gly Tyr Tyr Arg Val Gln Asn Arg
1 5 10 15
Ile Met Arg Tyr Leu Cys Leu Ala Leu Phe Ser Ala Leu Val Leu Phe
20 25 30
Ile Leu Ala Xaa Phe Xaa Phe Thr Ile Thr Ser Asp Glu Lys Gln Val
35 40 45
Ala Leu Gly Leu Pro Lys Val Ala Pro Lys Pro Leu Gln Trp Glu Ser
50 55 60
Phe Pro Phe Leu Lys Arg Tyr His Gly Gly Ile Arg Thr Leu Ile Pro
65 70 75 80
Arg Asn Glu Ser Val Pro Glu Tyr Pro Ser Asp Gly Met Glu Glu Met
85 90 95
Ala Met Gly Ser Asp Asn Asn Lys Gly Gln Ala Asn Ile Glu Thr Arg
100 105 110
Gly Gln Glu Ala Leu Met Ser Ser Leu Val Phe Asn Pro Tyr Pro Asp
115 120 125
Tyr Asp Ser Asp Glu Tyr Lys Lys Lys Tyr Gly Glu Lys Arg Glu Cys
130 135 140
Phe Leu Asp Glu Gln Glu Thr Ile Arg Ile Pro Pro Val Gln His Tyr
145 150 155 160
Pro Gly Val Pro Arg Gly Phe Pro Asp Ala Val Met Gly Ser Asn Thr
165 170 175
Met Leu Gly Ile Lys Asp Asp Val Cys Phe Glu Arg Phe Gly Arg Leu
180 185 190
Gly Pro Tyr Gly Phe Gly Tyr Ser Val Arg Lys Gly Gly Val Gly Ala
195 200 205
Gly Met Glu Gly His Arg Glu Gly Ala Glu Arg Val Trp Asp Asp Leu
210 215 220
Pro Pro Val Asp Phe Arg His Val Asp Trp Ala Ala Ala Gln Asn Arg

```
225                 230                 235                 240
Cys Val Ala Leu Asn Ser His Arg Phe Lys Asp Leu Pro Gln Pro Arg
                245                 250                 255
Leu Asn Arg Phe Leu Ser Leu Pro Val Gly Val Pro Lys Ser Ser Gln
            260                 265                 270
Ser Gln Glu Lys Asp Glu Ala Ser Gln Ser Lys Ala Asp Arg Leu Pro
        275                 280                 285
Arg Thr Ala Val Val Ile Arg Thr Trp His Asp Phe His Phe Thr Pro
    290                 295                 300
Asp Asp Ile Leu Tyr Leu Arg Ser Leu Ile Ser Glu Leu Ser Leu Leu
305                 310                 315                 320
Ser Gly Gly Glu Tyr Thr Ile His Phe Leu Val His Val Lys Asp Gly
                325                 330                 335
Asn Leu Gln Ile Trp Ser Asp Asp Glu Thr Tyr Glu Arg Val Leu Asn
            340                 345                 350
Asp Ala Leu Pro Ala Glu Phe Arg Gly Met Gly Thr Leu Trp Ser Glu
        355                 360                 365
Gln Gln Met Ala Leu Ile Tyr Pro Gly Leu Glu Glu Thr Trp Thr Arg
    370                 375                 380
Gly Leu Pro Val His Gly Val Tyr Arg Ser Thr Phe Met Pro Met Gln
385                 390                 395                 400
Tyr Phe Ala Tyr Gln His Pro Glu Tyr Asp Phe Tyr Trp Asn Trp Glu
                405                 410                 415
Met Asp Val Arg Tyr Thr Gly His Trp Tyr His Leu Phe Asp Lys Val
            420                 425                 430
Gly Ser Trp Ala Arg Glu Gln Pro Arg Lys Leu Leu Trp Glu Arg Asn
        435                 440                 445
Ala Arg Ile Asn Val Pro Ser Val His Gly Ser Trp Glu Asp Phe Arg
    450                 455                 460
His Thr Val Arg Val Gln Thr Glu Ser Gly Thr Asn Ser Pro Asn Asn
465                 470                 475                 480
Leu Trp Ser Ala Ala Thr Lys Tyr Gly Ser Asp Pro Ser Ser Gly Asp
                485                 490                 495
Arg Gln Ala Leu His Arg Gln Gly Asp Lys Pro Ile Trp Gly Pro Glu
            500                 505                 510
Arg Pro Asp Glu Arg Asp Ile Leu Glu Val Asp Gly Glu Gly Ile Pro
        515                 520                 525
Gln Thr Thr Met Glu Lys Asp Gln Asn Glu Trp Gly Val Gly Glu Glu
    530                 535                 540
Ala Asp Leu Ile Val Phe Asn Pro Leu Tyr Asp Pro Glu Gly Thr Thr
545                 550                 555                 560
Trp Leu Leu Arg Asp Asp Val Thr Gly Tyr Asn Lys Glu Asn Gly Met
                565                 570                 575
Pro Pro Arg Arg Thr Ala Ile Ile Thr Ala Ser Arg Leu Ser Arg Lys
            580                 585                 590
Leu Leu Leu Thr Met His Lys Glu Thr Ser Leu Lys Arg His Thr Met
        595                 600                 605
Phe Ser Glu Met Trp Pro Ala Thr Thr Ala Leu His His Gly Phe Lys
    610                 615                 620
Ala Val Phe Val Pro His Ser Val Tyr Ile Asp Arg Arg Trp Pro Thr
625                 630                 635                 640
Lys Tyr Leu Glu Ser Val Phe Asn Ala Gly Arg Asn Gly Ala Ser Gly
                645                 650                 655
Gly Ala Arg Thr Ser Val Phe Gly Asp Arg Glu His Asn Phe Arg Gly
            660                 665                 670
Thr Thr Trp Phe Tyr Ser Ala Gly Phe Ser Pro Asn Leu Trp Arg Arg
```

```
        675                 680                 685
Trp Leu Gly Tyr Lys Val Asp Asn Asp Gly Gly Glu Gln Glu Glu Leu
    690                 695                 700
Ala Gly Glu Gly Arg Met Cys Leu Pro Pro Met Leu Leu His Pro Ile
705                 710                 715                 720
Lys Asp Val Gln Met Val Ile Asp Asp Gly Ala Ser Asp Met Leu Gly
                725                 730                 735
Ala Ser
```

<210> 31721
<211> 182
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (18),(38)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31721

```
Trp Pro Lys Ala Asn Ser Gln Gly Ala Val Phe Leu Gln Phe Gly Phe
1               5                   10                  15
Gly Xaa Gly Glu Phe Leu Ala Leu Pro Ile Lys Phe Lys Phe Gln Phe
            20                  25                  30
Ser Arg Gly Glu Gly Xaa Gly Ala Thr Lys Ser Lys Leu Pro Trp Asn
        35                  40                  45
Gly Leu Lys Gly Ser Cys Thr Leu Ile Thr Val Arg Thr Ile Tyr Arg
    50                  55                  60
Thr Val Glu Tyr Phe Thr Ala Ala Ser Leu Asn Ile Tyr Asn Val Ser
65                  70                  75                  80
Asp Leu Ser Pro Ile Leu Lys Asp Glu Trp Phe Phe Trp Val Phe Glu
                85                  90                  95
Thr Ala Val Met Phe Thr Asn Thr Thr Leu Leu Asn Val Leu His Pro
            100                 105                 110
Met Gln Trp Leu Pro Arg Ser Asn Lys Ile Tyr Leu Thr Lys Asp Gly
        115                 120                 125
Val Thr Glu Ile Glu Gly Pro Gly Phe Glu Asp Gly Arg Pro Phe Leu
    130                 135                 140
Gln Thr Leu Ile Asp Pro Phe Asp Val Ile Gly Leu Ile Ala Asn Lys
145                 150                 155                 160
Gly Arg Lys Glu Lys Tyr Trp Asp Ala Leu Asp Ala Asn Glu Lys Arg
                165                 170                 175
Ser Pro Pro Ala Gln Val
            180
```

<210> 31722
<211> 223
<212> PRT
<213> A.fumigatus

<400> 31722

```
His Ala Ser Val Tyr Gly Ala Ser Pro Gln Phe Cys Ala Gly Pro Val
1               5                   10                  15
His Ser Val His Ala Val Glu Gly Pro Leu Arg Val His Val Ser Thr
            20                  25                  30
```

```
Ser Leu Gly Arg Thr Gly Phe Asn Arg Leu Thr Val Ser Ser Asn Phe
        35                  40                  45
Tyr Arg Ala Ser Ser Ser Pro Ile Val Val Val Leu Ser Gly Ser Met
    50                  55                  60
Glu Pro Ala Phe Gln Arg Gly Asp Leu Leu Phe Leu Trp Asn Arg Ser
65                  70                  75                  80
Pro Arg Ala Glu Leu Gly Glu Ile Val Val Tyr Asn Val Arg Gly Lys
                85                  90                  95
Asp Ile Pro Ile Val His Arg Val Val Arg Thr Phe Pro Gln Ile Glu
            100                 105                 110
Gly Lys Ala Lys Lys Val Lys Glu Val Asn Glu Cys Val Leu His Ser
        115                 120                 125
Ala Ser Ile Cys Cys Glu Gln Leu Leu Thr Arg Arg Ile Cys His Arg
    130                 135                 140
Ala Ser Ser Val Pro Pro Asn Met Leu Leu Thr Lys Gly Asp Asn Asn
145                 150                 155                 160
Ile Ala Asp Asp Thr Glu Leu Tyr Ala Lys Asn Gln Asp Phe Leu His
                165                 170                 175
Arg Glu Glu Asp Ile Val Gly Ser Val Arg Gly Tyr Met Pro Met Val
            180                 185                 190
Gly Tyr Val Thr Ile Met Leu Ser Glu His Pro Trp Leu Lys Thr Val
        195                 200                 205
Leu Leu Gly Ile Met Gly Leu Met Val Ile Leu Gln Arg Glu Gln
    210                 215                 220
```

<210> 31723
<211> 71
<212> PRT
<213> A.fumigatus

<400> 31723

```
Arg Ala Ala Asn Met Gly Ser Gln Lys Arg Ile Ala Lys Val Arg His
1               5                   10                  15
Trp Asp Gln Val Ala Ser Asn Phe Leu Val Phe Tyr Leu Leu Ala Asn
            20                  25                  30
Gly Ile Asn Val Leu Gln Glu Leu Ala Glu Leu Thr Glu Ser Pro Pro
        35                  40                  45
Ala Gly Ile Thr Val Glu Leu Val Asp Glu Ser Asn Leu Tyr Glu Trp
    50                  55                  60
Lys Val Tyr Leu Gly Gly Pro
65                  70
```

<210> 31724
<211> 293
<212> PRT
<213> A.fumigatus

<400> 31724

```
Gln Arg Val Ser Phe Gln Pro Arg Ser Val Asn Thr Gly Ala Val Phe
1               5                   10                  15
Ile Glu Asp Ser Gly Leu Ile Trp Asp Ala Thr Leu Asn Gln Thr Asn
            20                  25                  30
Ser Ala His Asn Asn Asn Lys Phe Tyr Arg Ile Gln Leu Leu Val Asp
        35                  40                  45
Thr Ser Gly Thr Thr Tyr Lys Thr Trp Thr Arg Trp Gly Arg Val Gly
    50                  55                  60
```

```
Glu Phe Gly Ser Ser Ala Leu Leu Gly Asp Gly Thr Leu Gln Arg Ala
65                  70                  75                  80
Lys Phe Glu Phe Glu Lys Lys Phe Lys Asp Lys Thr Gly Leu Lys Trp
                85                  90                  95
Glu Asp Arg Leu Ser Thr Pro Lys Ser Asn Lys Tyr Thr Phe Ile Glu
            100                 105                 110
Arg Asn Tyr Glu Glu Ser Asp Asp Glu Asp Asp Ser Glu Asp Lys Met
        115                 120                 125
Asp Val Asp Lys Arg Glu Lys Ile Glu Ser Thr Leu Pro Gln Ala Val
    130                 135                 140
Gln Glu Leu Leu Thr Phe Ile Phe Asn Gln Gln His Phe Leu Ser Thr
145                 150                 155                 160
Met Ala Ser Met Ser Tyr Asp Ala Gln Lys Leu Pro Leu Gly Lys Leu
                165                 170                 175
Ser Lys Arg Thr Leu Thr Thr Gly Phe Gln Ile Leu Lys Asp Leu Ser
            180                 185                 190
Glu Leu Val Ala Asp Pro Ser Leu Ala Ser Ser Arg Tyr Asn Thr Ser
        195                 200                 205
Phe Gln Gln Ala Ala Leu Asp Leu Ser Asn Arg Tyr Phe Thr Thr Ile
    210                 215                 220
Pro His Val Phe Gly Arg Asn Thr Pro Pro Ile Leu Thr Lys Asp His
225                 230                 235                 240
Gln Ile Lys Thr Glu Val Asp Leu Leu Glu Ala Leu Thr Asp Met Gly
                245                 250                 255
Val Ala Asn Gly Ile Met Lys Asn Ser Arg Asp Ala Glu Met Met Asn
            260                 265                 270
Gln Leu Asp Arg Gln Tyr Gln Gly Leu Gly Met Gln Glu Met Thr Pro
        275                 280                 285
Arg Gln Ser Ala Ile
    290

<210> 31725
<211> 221
<212> PRT
<213> A.fumigatus

<400> 31725
Ser Ile Pro Glu Gln Phe Ser Arg Leu Asp Ala Pro Ser Ser Ile Gln
1               5                   10                  15
Arg Glu Tyr Phe Pro Arg Asn Leu Lys Phe Gln Asp Thr Gln His Lys
            20                  25                  30
Gln Val Ile Asn Ile Phe Arg Ile Glu Arg Lys Gly Glu Glu Asp Arg
        35                  40                  45
Phe Lys Ser Ser Cys Phe Ala Asn Leu Thr Asn Ser Asn Arg Arg Leu
    50                  55                  60
Leu Trp His Gly Ser Arg Ser Thr Asn Phe Gly Gly Ile Leu Ser Gln
65                  70                  75                  80
Gly Leu Arg Ile Ala Pro Pro Glu Ala Pro Val Ser Gly Tyr Met Phe
                85                  90                  95
Gly Lys Gly Val Tyr Phe Ala Asp Met Ser Ser Lys Ser Ala Asn Tyr
            100                 105                 110
Cys Val Pro Tyr Asn Ser Ala Asn Met Gly Leu Leu Leu Leu Cys Asp
        115                 120                 125
Val Glu Leu Gly Asn Pro Met Leu Glu Gln Phe Arg Ala Asn Phe Asn
    130                 135                 140
Ala Gly Thr Asp Ala Lys Ala Gln Gly Lys Ile Ala Thr Leu Gly Lys
```

```
145                 150                 155                 160
Gly Arg Thr Ile Pro Ala Gly Trp Lys Asp Ala Gly Cys Leu His Pro
                165                 170                 175
Ala Leu Ser Gly Val Gln Met Pro Asp Val Ser Lys Ser Thr Met Ser
            180                 185                 190
Asp Asn Gly Ser Leu Leu Tyr Asn Glu Tyr Ile Val Tyr Asp Val Ala
        195                 200                 205
Gln Ile Arg Gln Arg Tyr Leu Phe His Val His Met Ser
    210                 215                 220
```

<210> 31726
<211> 104
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (62),(65),(77)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31726

```
Lys Arg Leu Lys Ala Arg Val Pro Ser Gly Pro Thr Cys Thr Arg Ala
1               5                   10                  15
Ser Ala Ser Pro Pro Ile Pro Tyr Leu Gln Met Gly Arg Ile Gly Leu
            20                  25                  30
Asn Arg Phe Lys Ala Ala Met Ala Arg Phe Leu Asn Glu Arg Leu His
        35                  40                  45
Pro Ala Thr Pro Leu Glu Pro His His Leu Ile Leu Thr Xaa Gly Val
    50                  55                  60
Xaa Ala Ala Val Glu His Leu Ser Trp Ala Leu Ala Xaa Lys Gly Glu
65                  70                  75                  80
Gly Ile Leu Leu Gly Asp Arg Thr Thr Ala Pro Leu Ser Arg Ile Ser
                85                  90                  95
Pro Cys Gly Ser Ala Arg Arg Leu
            100
```

<210> 31727
<211> 298
<212> PRT
<213> A.fumigatus

<400> 31727

```
Arg Arg Gly His Pro Pro Gly Arg Pro Tyr Tyr Gly Thr Phe Val Ala
1               5                   10                  15
Asp Ile Ser Met Arg Phe Gly Thr Glu Val Val Thr Val Pro Phe Gly
            20                  25                  30
Gly Ala Asp Pro Leu Gly Glu Ala Cys Val Glu Ala Tyr Arg Gln Ala
        35                  40                  45
Leu Thr Ser Phe Glu Gln Arg Thr Gly Lys Lys Cys Arg Ala Leu Leu
    50                  55                  60
Leu Cys His Pro His Asn Pro Leu Gly Arg Cys Tyr Ser Arg Asn Val
65                  70                  75                  80
Leu Val Ala Leu Met Arg Leu Cys Gln Glu Gln Gly Met His Phe Ile
                85                  90                  95
Ser Asp Glu Ile Tyr Ala Leu Ser Val Trp Gly Gly Glu Glu Phe Val
            100                 105                 110
```

```
Ser Ala Leu Ser Ile Asp Thr Ser Gly Ile Ile Asp Ala Asp Arg Val
        115                 120                 125
His Val Leu Trp Gly Met Ser Lys Asp Phe Gly Ala Asn Gly Leu Arg
    130                 135                 140
Leu Gly Ala Leu Ile Ser Gln Gly Asn Lys Asp Val Arg Ala Ala Val
145                 150                 155                 160
Asp Ser Val Ala Leu Tyr Ser Tyr Val Ser Gly Pro Ala Asp His Leu
                165                 170                 175
Ala Ala Asn Val Leu Glu Asp Asp Ala Tyr Thr Asp Glu Tyr Ile Arg
            180                 185                 190
Leu Asn Cys Glu Lys Leu Lys Gln Ala Tyr Glu Tyr Thr Val Gly Leu
        195                 200                 205
Leu Thr Gln Asn Glu Ile Pro Tyr Met Ala Gly Ala Asn Ala Gly Phe
    210                 215                 220
Phe Val Trp Val Asp Leu Gly Thr Pro Tyr Leu Lys His His Pro Glu
225                 230                 235                 240
Ala Lys His Glu Asp Val Gly Glu Ile Val Met Gln Arg Leu Leu Lys
                245                 250                 255
Asn Lys Val Phe Leu Ala Ser Gly Ala Leu Phe Gly Ser Glu Thr Pro
            260                 265                 270
Gly Trp Phe Arg Ile Val Phe Ala His Pro Gln Ala Tyr Leu Asp Glu
        275                 280                 285
Ala Leu Arg Arg Ile Val Ala Ala Leu Gln
    290                 295
```

<210> 31728
<211> 142
<212> PRT
<213> A.fumigatus

<400> 31728

```
Pro Gly Arg Pro Gly Thr Arg Gly Pro Ser Cys Gln Pro Thr Lys Pro
1               5                   10                  15
Lys Pro Arg Ala Thr Met Thr Arg Arg Ser Gly Leu Ser Gln Pro Cys
            20                  25                  30
Pro Leu Arg Ser Gly Thr Ser Pro Thr Gln Thr Arg Thr Thr Gly Pro
        35                  40                  45
Gly Gly Trp Arg Trp Arg Arg Arg Cys Ser Thr Arg Arg Arg Arg Gly
    50                  55                  60
Gly Thr Lys Thr Pro Ala Ala Gly Asp Cys Gly Gly Arg Ser Ser Ala
65                  70                  75                  80
Ser Thr Met Asp Gly Ile Thr Arg Ile Pro Phe Pro Thr Gly Val Phe
                85                  90                  95
Ser Thr Trp Pro Pro Gly Trp Arg Gly Thr Arg Gly Thr Ala Arg Thr
            100                 105                 110
Leu Ser Gly Gln Ser Gly Ser Gly Thr Gly Arg Trp Thr Trp Ala Ser
        115                 120                 125
Ser Arg Thr Thr Gly Cys Ser Thr Thr Gly Arg Thr Ser Cys
    130                 135                 140
```

<210> 31729
<211> 197
<212> PRT
<213> A.fumigatus

<400> 31729

```
Cys Val Ala Asn Gln Tyr Lys Thr Glu Gly Asp Ser Arg Trp Glu Ala
1               5                  10                  15
Arg Thr Lys His Ile Leu Gln Ala Thr Asp Ala Phe Phe Ala Glu Asp
            20                  25                  30
Pro Ala Met Val Met Tyr Glu Arg Ala Cys Glu Leu Val Asp Thr Cys
        35                  40                  45
Gln Val Asp Gln Arg Ala Phe Lys Gly Ser Ser Arg Asp Gly Trp Arg
    50                  55                  60
Arg Pro Arg Arg Leu Pro Pro Ser Arg Met Thr Gly Ser Trp Pro Arg
65                  70                  75                  80
Leu Arg Ala Ser Ala Ala Ala Ala Ala Arg Thr Cys Thr Gly Gly Pro
                85                  90                  95
Asp Gly Ala Ala Cys Gly Leu Lys Trp Thr Thr Gly Val Trp Asp Gly
            100                 105                 110
Ser Glu Asp Val Gly Leu Gln Met Ser Ala Leu Glu Val Ile Gln Asn
        115                 120                 125
Leu Leu Val Asp Arg Val Asp Pro Pro Val Thr Asp Ala Thr Gly Gly
    130                 135                 140
Thr Ser Val Gly Asp Pro Ser Gly Gly Met Glu Gln Pro Asp Pro Arg
145                 150                 155                 160
Pro Pro Val Leu Thr Met Thr Ile Thr Gly Ala Asp Arg Ala Gly Ala
                165                 170                 175
Gly Leu Leu Thr Ala Met Leu Gly Val Leu Met Ile Gly Thr Thr Gly
            180                 185                 190
Trp Leu Leu Tyr Glu
        195
```

<210> 31730
<211> 281
<212> PRT
<213> A.fumigatus

<400> 31730

```
Ser Pro Lys Ser Ala Thr Met His Cys Met Gln Leu Leu Trp Leu Leu
1               5                  10                  15
Thr Leu Ser Pro Ala Tyr Ser Ile Pro Leu Asp Pro Asn Asp Pro Thr
            20                  25                  30
Ser Ile Lys Gln Ala Ala His His Val Ala Ala Asn Met Leu Ser His
        35                  40                  45
Tyr Thr Gly Met Lys Pro Gly Asp Asn Pro Gly Asn Leu Pro Pro Pro
    50                  55                  60
Tyr Tyr Trp Trp Glu Ala Gly Ala Met Phe Asn Ala Leu Ile Asp Tyr
65                  70                  75                  80
Trp Tyr Leu Thr Gly Asp Ser Thr Trp Asn Ala Ile Thr Thr Gln Ala
                85                  90                  95
Leu Thr Trp Gln Ala Gly His Thr Gly Thr Phe Met Pro Thr Asn Gln
            100                 105                 110
Thr Lys Thr Glu Gly Asn Asp Asp Gln Ala Phe Trp Ala Phe Ala Ala
        115                 120                 125
Met Ser Ala Ala Glu Arg Asn Phe Pro Asp Pro Asp Pro Asp His Gly
    130                 135                 140
Pro Gly Trp Leu Ala Met Ala Gln Ala Val Phe Asn Thr Gln Ala Ala
145                 150                 155                 160
Arg Trp Asp Glu Asp Thr Cys Gly Gly Gly Leu Arg Trp Gln Ile Phe
                165                 170                 175
Ser Phe Asn Asn Gly Trp Asn Tyr Lys Asn Thr Ile Ser Asn Gly Cys
```

```
            180                 185                 190
Phe Phe His Leu Ala Ala Arg Leu Ala Arg Tyr Thr Gly Asn Arg Thr
        195                 200                 205
Tyr Ala Glu Trp Ala Glu Arg Val Trp Asp Trp Thr Val Asp Val Gly
    210                 215                 220
Phe Ile Thr Asp Asp Trp Leu Phe Tyr Asp Gly Ala Asp Val Leu Leu
225                 230                 235                 240
Asn Cys Ser Asp Leu Asn Arg Ile Glu Trp Thr Tyr Asn Ser Gly Val
                245                 250                 255
Tyr Leu Leu Gly Ala Ala Asn Met Tyr Asn Cys Val Cys Leu Cys Leu
            260                 265                 270
Trp Leu Leu Ala Leu Leu Met Arg Gly
        275                 280
```

<210> 31731
<211> 63
<212> PRT
<213> A.fumigatus

<400> 31731

```
Leu Gly Arg Asp Leu Ser Arg Lys Gly Lys Gln Glu Arg Thr Thr Leu
1               5                   10                  15
Lys Lys Ala Thr Tyr Val Leu Ser Tyr Cys Leu Ser Leu Tyr Leu Asn
            20                  25                  30
Met Glu Ser Lys Glu Leu Ser Lys Met Ser Met Leu Arg Ser Lys Ile
        35                  40                  45
Cys Asn Val Gln Ala Ser Arg Gln Ala Gly Val Leu Lys Cys Asp
    50                  55                  60
```

<210> 31732
<211> 224
<212> PRT
<213> A.fumigatus

<400> 31732

```
Leu Lys Phe Ser Ile Cys Leu Ser Tyr Val Phe Val His Asn Leu Asp
1               5                   10                  15
Ala Cys His Gln Ser Gln Leu Asp Thr Gly Leu Leu Thr Arg Ala Cys
            20                  25                  30
Ile Cys Met Arg Thr Tyr Ala Ile Arg Pro Val Ser Asn Arg Leu Pro
        35                  40                  45
Gly Pro Ile Glu Pro Lys Lys His Arg Arg Asp Arg Asp Asn Ser Thr
    50                  55                  60
Thr Gly Ser Leu Tyr Asn Ala Leu Ile His Pro Val Gln Arg Glu Lys
65                  70                  75                  80
Thr Ile Thr Ser Thr Met Ile Arg Val Ala Glu Phe Gln Pro Phe Leu
                85                  90                  95
Asn Thr Ile Ser Val Leu Gln Val Leu Ala Ala Ile Phe Ile Gly Ala
            100                 105                 110
Leu Thr Tyr Arg Leu Ile Asp Ala Phe Phe Leu Ser Pro Leu Arg Ser
        115                 120                 125
Ile Pro Gly Pro Leu Leu Ala Arg Leu Thr Thr Lys Arg Ala Asn Val
    130                 135                 140
Asp Thr Phe Ser Gly Lys Val Thr Gln Thr Val Asp Lys Asp Val Ala
145                 150                 155                 160
Arg Tyr Gly Asp Val Tyr Val Tyr Lys Pro Arg Ala Val Cys Ile Asn
```

```
                165                 170                 175
His Pro Asp Asp Ile Arg Ala Val Leu Gly Ser Gln Glu Phe Arg Lys
            180                 185                 190
Ala Ala Phe Phe Asp Ile Phe Asn Asp Gly Asn Thr Pro Asn Ile Val
        195                 200                 205
Ser Leu Arg Glu Pro Glu Leu Ala Asn Arg Arg Ser Ser Pro Arg Gly
    210                 215                 220
```

<210> 31733
<211> 254
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (233)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31733

```
Asp Thr Met Ala Leu Pro Ile Ile Leu Cys Leu Ala Val Ile Leu Trp
1               5                   10                  15
Thr Ser Trp Arg Leu Leu Asp Ala Leu Phe Leu Ser Pro Leu His Arg
            20                  25                  30
Val Pro Gly Pro Val Leu Ala Arg Leu Thr Pro Leu Arg Ala Ile Tyr
        35                  40                  45
Ala Arg Leu Pro Ser Arg Val Ile Pro Ala Ala Leu Ala Asp Phe His
    50                  55                  60
Ser Tyr Gly Asp Ile Tyr Leu Ser Lys Pro Arg Thr Ile Thr Ile Ser
65                  70                  75                  80
His Pro Arg Asp Val Arg Ala Ile Leu Ala Ser Ser Glu Phe Gln Lys
                85                  90                  95
Ile Asp Val Tyr His Gly Leu Asn Asp Pro Val Met Ala Asn Ile Val
            100                 105                 110
Thr Phe Ser Asp Pro Lys Leu Ala Ser Arg Arg Arg Arg Gln Ile Gly
        115                 120                 125
Pro Tyr Phe Asn Pro Ser Tyr Leu Ala Lys Met Glu Glu Leu Ile Leu
    130                 135                 140
Trp Cys Gly Cys Arg Ala Val Ala Asp Lys Trp Asp Arg Leu Ile Ala
145                 150                 155                 160
Gln Gln Gly His Gly Pro Gln Lys Ser Val Lys Val Asn Tyr Arg His
                165                 170                 175
Asp Leu Gln Met Ala Thr Phe Asp Ile Met Ser Ala Leu Ala Phe Gly
            180                 185                 190
Arg Arg Leu Asp Ser Leu Lys Glu Glu Gly Glu Ser Val Ala Ile Val
        195                 200                 205
Glu Trp Ile Met Ala Thr Ala Val Tyr Ile Gly Val Arg Ile Asn Phe
    210                 215                 220
Arg Leu Leu Met Val Phe Pro Phe Xaa Pro Leu Val Pro Arg Trp Thr
225                 230                 235                 240
Thr Pro Met Pro Asn Leu Phe Ile Leu Pro Ala Thr Thr Gly
                245                 250
```

<210> 31734
<211> 246
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (29)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31734
Ala Glu Leu Phe Lys Asp Leu Leu Val Leu Pro Arg Arg Leu Ser Leu
1 5 10 15
Arg Ser Gln Gly Ile Arg Ser Phe Gly Ser Pro Ala Xaa Glu Tyr Gly
20 25 30
Phe Pro Ser Thr His Ser Thr Asn Ala Val Ser Val Ala Val Tyr Val
35 40 45
Leu Thr Leu Leu Asn Ser Pro Asp Ser Thr Val Ser Ser His Ile Asn
50 55 60
Leu Ile Phe Gln Cys Met Thr Tyr Leu Tyr Val Ser Ser Ile Val Leu
65 70 75 80
Gly Arg Leu Tyr Cys Gly Met His Gly Phe Leu Asp Val Ile Val Gly
85 90 95
Cys Leu Leu Gly Ala Ser Ile Thr Phe Val Gln Asn Leu Phe Gly Pro
100 105 110
Leu Leu Asp Asp Tyr Val Phe Ser Ala Ser Gly Lys Gln Ile Ala Leu
115 120 125
Val Val Leu Val Ile Ile Ile Leu Val Arg Ile His Pro Glu Pro Ala
130 135 140
Asp Asp Cys Pro Cys Phe Asp Asp Ser Val Ala Phe Ala Gly Val Ile
145 150 155 160
Ile Gly Val Gln Leu Gly Cys Trp His Phe Ala Lys Ser Ser Ile Ala
165 170 175
Trp Ser Asp Pro Ser Pro Ala Thr Ile Pro Phe Arg Tyr Lys Asp Leu
180 185 190
Gly Leu Val Lys Thr Val Leu Arg Phe Val Leu Gly Val Phe Leu Ile
195 200 205
Phe Thr Trp Arg Glu Val Met Lys Pro Leu Leu Leu Arg Thr Leu Pro
210 215 220
Pro Ile Phe Arg Ala Leu Glu Lys Leu Gly Leu Leu Leu Pro Arg Arg
225 230 235 240
Phe Phe Thr Arg Ala Ser
245

<210> 31735
<211> 238
<212> PRT
<213> A.fumigatus

<400> 31735
Ser Phe Gln Ala Pro Val Val Lys Thr Glu Ser Arg Thr Gln Ser Pro
1 5 10 15
Val Ala Leu Asn Arg Arg Gln Ser Asn Leu Asp Thr Thr Gly Ala Ser
20 25 30
Leu Ser Asp Tyr Arg Pro Thr Ser Arg Arg Ser Ser Thr Leu Leu Thr
35 40 45
Thr Ser Ser Asp Val Gly Thr Pro Pro Arg Gln Asn Ser Leu Pro Val
50 55 60
Pro Val Leu Ser Pro Pro Met Ser Thr Gly Leu Ser Asn Pro Pro Ile
65 70 75 80

```
Met Glu Ser Pro Val Ile Thr Phe Glu Pro Asp Asp Phe Phe Ser Gly
                85                  90                  95
Ser Ala Thr Pro Ala Thr Pro Ser Ala Tyr Gly Phe Pro Pro Ser His
            100                 105                 110
His Ser Arg Gly Ile Asn Asp Ile Ile Ser Glu Ser Thr Val Gly Ala
        115                 120                 125
Gly Pro Ser Val Gln Leu Val Glu Arg Met Ser Ala Thr Val Arg Arg
    130                 135                 140
Leu Glu Ser Glu Arg Ala Ala Ala Lys Asp Glu Leu Ala Arg Ile Thr
145                 150                 155                 160
Arg Gln Arg Asp Glu Ala Arg Lys Gln Val Val Asp Leu Met Arg Glu
                165                 170                 175
Ser Glu Glu Lys Lys Ala Ser Asp Ala Arg Val Gln Glu Leu Glu Thr
            180                 185                 190
Arg Leu Glu Asp Leu Asp Gln Arg Tyr Gln Thr Thr Leu Glu Leu Leu
        195                 200                 205
Gly Glu Lys Ser Glu Gln Val Glu Glu Leu Gln Ala Asp Ile Ala Asp
    210                 215                 220
Leu Lys Lys Ile Tyr Arg Glu Leu Val Asp Ser Thr Met Lys
225                 230                 235
```

<210> 31736
<211> 179
<212> PRT
<213> A.fumigatus

<400> 31736

```
Lys Met Gln Lys Ala Ile Pro Ser Ser Thr Cys Tyr Tyr Gly Lys Val
1               5                  10                  15
Gln Met Ser Ala Ser Arg Val Ser Gln Ala Arg Tyr Val Ser Met Thr
            20                  25                  30
Thr Asp Pro Ala Thr Ser Phe Ser Phe Pro His Ala Arg Phe Asn Gln
        35                  40                  45
Asn Ala Leu His Phe Ala Thr Ser Lys Gly Asn Leu Ser Thr Val Arg
    50                  55                  60
Thr Leu Leu Ala Asn Lys Cys Ser Ala Arg Val Lys Asp Arg Arg Gly
65                  70                  75                  80
Gln Leu Pro Leu His Arg Ala Ala Ala Ile Gly Ser Ile Pro Ile Ile
                85                  90                  95
Lys Leu Leu Leu Glu Glu Gly Lys Ser Pro Val Asn Ala Thr Asp Ile
            100                 105                 110
Asp Gly Leu Thr Ala Leu His His Ala Ile Ser Glu Gly His Gly Asp
        115                 120                 125
Ala Ala Ile Thr Leu Leu Lys Ala Gly Ala Glu Ala Asp Lys Lys Asp
    130                 135                 140
Ser Glu Gly Arg Leu Ala Ile Glu Thr Ala Pro Asp Ala Lys Val Ser
145                 150                 155                 160
Cys Pro Arg Phe Ser Trp Leu Met Tyr Lys Arg Ala Asp Cys Arg Ser
                165                 170                 175
Leu Leu Gly
```

<210> 31737
<211> 526
<212> PRT
<213> A.fumigatus

<400> 31737

```
Ala Asp Pro Ala Ser Arg Val Val Lys Ile Leu Lys Asp Leu Leu Gly
1               5                  10                  15
His Asp Arg Glu His Ala Asn Leu Pro Leu Ala Val Leu Phe Ala Lys
            20                  25                  30
Ser Phe Ser Trp Asp Ile Leu Gly Ala Asn Met Val Asp Glu Asn Arg
        35                  40                  45
Lys Thr Val Asp Val Asp Gly Thr Thr Thr Ser Val Ala Pro Pro Glu
    50                  55                  60
Thr Val Ser Gly Gly Asp Asp Ala Thr Ala Pro Glu Asn Glu Pro Pro
65                  70                  75                  80
Leu Val Ser Glu Lys Thr Gln Leu Arg Phe Lys Ser Ile Leu Ser Arg
                85                  90                  95
Tyr Leu Glu Asp Val Lys Ala His Val Val Arg Asp Gln Arg Ala Leu
            100                 105                 110
Ala Ala Gln Ser Arg Arg Asn Ala Glu Ala Tyr Val Lys Ser Gly Glu
        115                 120                 125
Ile Phe Glu Asp Arg Gln Ala Asn Phe Asp Lys Gln Ser Lys Ser Leu
    130                 135                 140
Glu Lys Leu Val Ala Asn Thr Gln Val Leu Cys Glu Val Leu Gly Val
145                 150                 155                 160
Glu Met Pro Val Leu Ala Glu Gln Glu Ala Ala Asp Ser Ala Ser Ser
                165                 170                 175
Gly Gly Ile Gly Leu Val Lys Thr Ser Glu Tyr Leu Arg Gly Gln Gly
            180                 185                 190
Glu Gly Pro Gly Ile Trp Glu Asp Glu Glu Glu Arg Arg Phe Tyr Glu
        195                 200                 205
Asn Leu Val Asp Leu Lys Gly Lys Val Pro Pro Val Leu Leu Glu Asp
    210                 215                 220
Gly Lys Lys Lys Lys Ser Asp Ser Asp Asp Ala Ala Lys Lys Arg Thr
225                 230                 235                 240
Asp Gly Glu Ala Thr Pro Asp Ser Ser Val Glu Lys Pro Glu Asn Ala
                245                 250                 255
Ser Gln Thr Pro Thr Ser Glu Glu Lys Ser Ala Ala Glu Ala Glu Asp
            260                 265                 270
Gln Ser Thr Ala Ile Ala Ser Lys Thr Val Gly Ala Gln Val Asp Ala
        275                 280                 285
Leu Leu Ala Arg Leu Pro Glu Leu Gln Thr Lys Asp Gln Val Asp Gln
    290                 295                 300
Leu Ala Leu Glu Phe Cys Phe Leu Asn Ser Lys Ala Ser Arg Asn Arg
305                 310                 315                 320
Leu Ile Lys Ala Val Ser Asp Val Pro Lys Gly Arg Val Asp Leu Leu
                325                 330                 335
Pro Leu Tyr Ser Arg Leu Val Ala Thr Leu Gly Gln Tyr Leu Gln Asp
            340                 345                 350
Ile Pro Gln Gly Leu Ile Thr Tyr Leu Asp Glu Glu Phe Arg Ser Leu
        355                 360                 365
Gln Arg Arg Lys Ser Lys Glu Phe Leu Gly Gln Val Arg Met Thr Asn
    370                 375                 380
Ile Arg Tyr Phe Ala Glu Leu Thr Lys Phe Gly Val Val Pro Glu His
385                 390                 395                 400
Ile Ile Phe His Cys Phe Lys Val Ser Leu Asp Asp Phe Ser Arg Met
                405                 410                 415
Asn Ile Glu Ile Ile Gly His Leu Leu Glu Asn Cys Gly Arg Tyr Leu
            420                 425                 430
```

```
Leu Arg Asn Pro Glu Thr Ser Pro Arg Met Ala Ser Phe Leu Glu Lys
        435                 440                 445
Leu Gly Arg Lys Lys Ala Val Gln His Leu Gly Gln Gln Glu Arg Met
    450                 455                 460
Ile Ile Glu Asn Ala Met Tyr Tyr Val Asp Pro Pro Pro Arg Pro Ala
465                 470                 475                 480
Ile Gln Gln Lys Glu Arg Thr Pro Met Glu Ser Tyr Ile Arg Lys Leu
                485                 490                 495
Ile Tyr Leu Asp Met Asn Lys Arg Asn Tyr Thr Lys Val Leu Lys Ser
            500                 505                 510
Ile Arg Lys Leu His Trp Glu Glu Gln Asp Val Ser Pro Leu
        515                 520                 525
```

<210> 31738
<211> 126
<212> PRT
<213> A.fumigatus

<400> 31738

```
Ser Ser Ser Arg Tyr Leu Phe Phe Pro Leu Ser Leu Arg Glu Glu Cys
1               5                   10                  15
Gly Leu Thr Phe Ser Gln Tyr Tyr Tyr Leu Thr Lys Asp Pro Leu Pro
            20                  25                  30
Met Asp Val Glu Phe Leu Ile Gln Asp Thr Phe Ala Met Ala Arg Pro
        35                  40                  45
Gln Trp Lys Leu Met Thr Asp Leu Gln Glu Ala Thr Arg Leu Phe Ser
    50                  55                  60
Glu Ala Val Ala Gln Asn Tyr Lys Thr Ser Asp Ser Glu Arg Pro Val
65                  70                  75                  80
Glu Pro Asp Glu Asp Asp Ala Glu Ser Ser Ser Ser Asp Asp Gly Leu
                85                  90                  95
Glu Asp Asp Ala Ile Pro Glu Ala Glu Glu Glu Gln Glu Ser Ser Asp
            100                 105                 110
Glu Ala Glu Val Ser Phe Thr Ser Ile Arg Ala Lys Ser Pro
        115                 120                 125
```

<210> 31739
<211> 83
<212> PRT
<213> A.fumigatus

<400> 31739

```
Val Val Asp Ile Met Glu Arg Val Phe Ser Lys Pro Val Lys Val Lys
1               5                   10                  15
Tyr Gly Asn Ile His Leu Leu Ala Ile Leu Val Ser Ala Leu Tyr Arg
            20                  25                  30
Tyr His Gln Asp Phe Val Ile Ser Val Val Asp Asn Ile Leu Glu Gln
        35                  40                  45
Ile Thr Leu Gly Leu Glu Gln Asn Asp Phe Lys Phe Asn Gln Lys Arg
    50                  55                  60
Val Ala Glu Val Lys Tyr Leu Gly Glu Leu Tyr Asn Tyr Lys Met Ile
65                  70                  75                  80
Asp Ser Pro
```

<210> 31740

<211> 133
<212> PRT
<213> A.fumigatus

<400> 31740
Ser Leu Ile Arg Cys Thr Gly Leu Ser Leu Leu Ala Thr Val Ser Ile
1 5 10 15
Phe Gly Phe Ile Ile Val Phe Tyr Tyr Ser Gln Tyr Tyr Val Glu Gly
20 25 30
Gly Thr Pro Ile Pro Gly Lys Leu Asn Pro Leu Asp Leu Pro Asp Asp
35 40 45
Phe Phe Arg Ile Arg Leu Val Cys Thr Leu Leu Asp Thr Cys Gly His
50 55 60
Cys Phe Asp Arg Gly Ser Ala Lys Lys Lys Leu Asp Phe Phe Leu Ile
65 70 75 80
Phe Phe Gln Val Ser Leu Leu Pro Ala Gln Ser Ser Arg Gly Val Trp
85 90 95
Ser Asp Ile Phe Thr Val Leu Leu Ser Tyr Lys Gly Ser Phe Ala Tyr
100 105 110
Gly Arg Arg Ile Leu Asp Pro Gly His Leu Arg Tyr Gly Ser Ser Ser
115 120 125
Met Glu Val Asp Asp
130

<210> 31741
<211> 83
<212> PRT
<213> A.fumigatus

<400> 31741
Ala Asn Phe His Ser Phe Ser Val Thr Val Ile Ile Ile Ile Ile Ile
1 5 10 15
Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Tyr Ala Leu Glu Cys
20 25 30
Asn Gln Asn Pro Arg Thr Pro His Pro Leu His Ser Phe Cys Asp Arg
35 40 45
Pro Pro Gln Leu Ser Gly Gly Ser Pro Pro Leu Leu Asn His Ser Ala
50 55 60
Ile Arg Ile Val Ser Pro Arg Leu Arg Ser Ile Ser Pro Cys Leu Ser
65 70 75 80
Ser Pro Val

<210> 31742
<211> 201
<212> PRT
<213> A.fumigatus

<400> 31742
Met Trp Ser Leu Pro Val Thr Thr Ser Gly Pro Pro Pro Arg Ser Pro
1 5 10 15
Ala Ser Thr Ala Gly Thr Met Ser Ile Pro Leu Pro Arg Leu Ser Leu
20 25 30
Pro Arg Arg Gly Asp Pro Ala Asp Ser Asp Ala Ala Lys Pro Glu Glu
35 40 45
Ser Ser Val Arg Lys Gly Arg Arg Thr Lys Ile Pro Tyr Glu Ser Ile

```
    50                  55                  60
Leu Leu Leu Thr Ser Thr Ser Thr Phe Pro Lys Ser Gln Val Pro Glu
65                  70                  75                  80
Gly Thr Ser Glu Gly Leu Pro Thr Asn Gly Gln Gln Arg Ser Pro Asp
                85                  90                  95
Pro Thr Leu Asp Asp Asp Leu Asp Leu Asn Leu Pro Val Tyr Ser Leu
            100                 105                 110
Pro Asp Glu Thr Ile Glu Gly Gln His Gly Leu Ile Lys His Phe Met
        115                 120                 125
Leu Asn Asp Arg Lys Arg Thr Leu Thr Gln Asp Ser Ala Gly Glu Val
    130                 135                 140
Asp Leu Trp Asp Leu Leu Lys Val Ile Phe Leu Ser Arg His Pro Ser
145                 150                 155                 160
Ile Arg Phe Leu Leu Thr Leu Ala Val Gln Thr Asn Thr Ile Phe Arg
                165                 170                 175
Gln Ala Pro Tyr Gly Arg Arg Arg Ile Gly Asp Gln Tyr Tyr Arg Glu
            180                 185                 190
His Arg Ser Leu Val His Asp Arg His
        195                 200
```

Sequence Listing Page 12307 of 13307

<210> 31743
<211> 84
<212> PRT
<213> A.fumigatus

<400> 31743

```
Ser Gln Phe Ile Thr Pro Leu Leu Cys Ile Phe Pro Leu Phe Pro Ser
1               5                   10                  15
Phe Glu Leu Cys Tyr Leu Thr Ile Glu Leu Thr Phe Ile Leu Ser Leu
            20                  25                  30
Ser Leu Leu Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
        35                  40                  45
Ser Ser Ser Ser Met Pro Leu Asn Ala Ile Lys Ile Leu Val Pro His
    50                  55                  60
Ile Leu Cys Thr Pro Phe Val Ile Val Pro Pro Ser Cys Pro Ala Asp
65                  70                  75                  80
His His His Tyr
```

<210> 31744
<211> 75
<212> PRT
<213> A.fumigatus

<400> 31744

```
Pro Leu Gln Cys Lys Pro Ile Gln Ser Phe Gly Lys Arg His Met Asp
1               5                   10                  15
Asp Val Ala Ser Glu Ile Asn Thr Thr Glu Ser Ile Ala His Trp Cys
            20                  25                  30
Thr Ile Asp Ile Arg Thr Gly Arg Leu Ser Val Ile Leu Glu Leu Asn
        35                  40                  45
Arg Cys Phe Asp Ala Glu Val Tyr Ala Asp Glu Ala Asp Leu His Asp
    50                  55                  60
Tyr Ser Gln Ile Leu Gly Asp Gln Arg Ser Gly
65                  70                  75
```

<210> 31745
<211> 320
<212> PRT
<213> A.fumigatus

<400> 31745

```
Leu Thr Ala Ala Phe Pro Arg Tyr Ser Ala Gly Arg Asp Gly Val Ile
1               5                  10                  15
Cys Ala Trp Asp Leu Asn Leu Pro Leu Ser Ala Ser Lys Ser Ser Pro
            20                  25                  30
Ala Leu Gly Ala Gln Lys Ser Gly Pro Thr Thr Phe Arg His Gln Val
        35                  40                  45
Gln Ala His Ser His Trp Ile Asn Asp Ile Val Leu Thr Gln Asn Asn
    50                  55                  60
Thr Ala Leu Val Ser Ala Ser Ser Asp Thr Thr Val Arg Leu Trp Arg
65                  70                  75                  80
Pro His Ser Glu Ser Thr Glu Leu Pro Ser Pro Ile Gly Lys His Ala
                85                  90                  95
Asp Tyr Val Lys Ala Leu Ala Thr Pro Gly Gly His Ser Ser Trp Val
            100                 105                 110
Ala Ser Gly Gly Leu Asp His Lys Leu His Leu Trp Asp Leu Asn Gly
        115                 120                 125
Gly Gly Glu Leu Leu Ser Ile Asp Ala Cys Gly Gly Glu Ser Thr Ala
    130                 135                 140
Lys Gly Ser Val Tyr Ala Leu Gly Ala Val Ser Ser Val Leu Ala Ser
145                 150                 155                 160
Gly Gly Pro Glu Ser Val Val Arg Val Trp Asp Pro Lys Ser Gly Lys
                165                 170                 175
Pro Ile Thr Lys Phe Val Gly His Thr Asp Asn Ile Arg Asp Ile Leu
            180                 185                 190
Ile Thr Arg Asp Gly Asp Arg Ile Met Thr Ala Ser Ser Asp Gln Thr
        195                 200                 205
Ile Lys Ile Trp Ser Leu Thr Ala Gly Arg Cys Met His Thr Leu Thr
    210                 215                 220
Met His Asn Asp Ser Val Trp Ser Leu Tyr Ser Ser His Pro Gln Leu
225                 230                 235                 240
Ser Val Phe Tyr Ser Ser Asp Arg Ser Gly Leu Val Ala Lys Thr Asp
                245                 250                 255
Thr Arg His Cys Ser Asp Val Asp Gln Gly Ile Cys Val Ala Ala Leu
            260                 265                 270
Gln Glu Asn Asp Gly Val Val Asn Val Val Ala Ala Gly Asp Tyr Ile
        275                 280                 285
Trp Thr Ala Thr Pro Lys Ser Ser Ile Asn Arg Trp Tyr Asp Val Asp
    290                 295                 300
Thr Thr Ala Glu Ile Glu Ser Pro Ser Ser Arg Gly Pro Arg Arg Leu
305                 310                 315                 320
```

<210> 31746
<211> 94
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (61),(85),(89)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31746
Tyr Ala Glu Thr Asp Arg His Pro Leu Ala Ile Pro Asn Pro His Asn
1 5 10 15
Thr Asp Gln Asn Asp Thr Arg Ser Leu Ser Ser Ser Ile Tyr Tyr His
20 25 30
Leu Asn Pro Asp Ser Gln Pro Ala Ser Ser Pro Glu Thr Ala Ala His
35 40 45
Asn His Ala Leu His Arg Gly Leu Ala Arg Tyr Val Xaa Ile His Pro
50 55 60
Asp Ser Ala Asn Asp Asn Gly Thr Ala Pro Val Thr Ser Phe Val Val
65 70 75 80
Gly Pro Asp Leu Xaa Gln Gly Glu Xaa Asn His Cys Val Val
85 90

<210> 31747
<211> 166
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (143),(166)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31747
Tyr Asn Phe Ile Leu Tyr Leu Leu Gly Arg Asn Glu Gln Thr Pro Arg
1 5 10 15
Tyr Thr Ser Leu Ser Thr Thr Ile His Leu Arg Arg Ile Gln Val Pro
20 25 30
Glu Ile Pro Trp Thr Ser Pro Ser Pro Pro Phe Asn His Ser Ile Thr
35 40 45
His Leu Pro Pro Ala Pro Asn Pro Ser Pro Asn Pro Asn Pro His Pro
50 55 60
Ser Lys Gln Ser Ser Lys Pro Ser Ile Ser Ser Leu Thr Gln Lys Glu
65 70 75 80
Val Ser Thr Pro Lys Gln Thr Val Thr Arg Ser Pro Ser Pro Ile His
85 90 95
Thr Thr Gln Thr Lys Thr Thr Pro Ala Pro Ser Pro His Gln Ser Thr
100 105 110
Thr Ile Ser Thr Pro Thr Pro Asn Leu Arg Leu His Leu Lys Pro Gln
115 120 125
Arg Thr Ile Thr Pro Ser Ile Val Val Trp Arg Gly Met Ser Xaa Ser
130 135 140
Thr Pro Ile Arg Arg Thr Thr Met Ala Arg Arg Pro Leu Arg Pro Ser
145 150 155 160
Trp Ser Val Arg Ile Xaa
165

<210> 31748
<211> 225
<212> PRT
<213> A.fumigatus

<400> 31748
Gln Cys Val Lys Val Tyr His Pro Arg Val Lys Ala Gln Ala Ile Tyr

```
1               5                   10                  15
Val Pro Thr Met Ala Ser Thr Ser Gln Ser Arg Phe His Glu Asp Leu
            20                  25                  30
Arg Asp Asp Gly Ser Ile Leu Asp Asp Asp Leu Ile Glu Ala Asp Asp
        35                  40                  45
Gly Glu Tyr Ile Ser Phe Ser Arg Phe Ser Leu Asp Cys Ile Arg Pro
    50                  55                  60
Ala Leu Val Cys Leu Pro Glu Leu Leu Arg Cys Thr Asp Thr Cys Tyr
65                  70                  75                  80
Leu Ser Ile Met Pro Ala Ile Glu Ala Asp Asp Pro Leu His Thr Ser
                85                  90                  95
Asp Thr Ala Pro Leu Arg Gly Asn Ile Gln Ser Glu Pro Ser Ser Ser
            100                 105                 110
Ser Arg Gly Gly Phe Gly Ser Asn Leu Ser Ser Asn Tyr Leu Thr Ser
        115                 120                 125
Thr Ile Pro Gly Glu Asp Arg Arg Ala Thr Gln Asn Thr Ile Asp Glu
    130                 135                 140
Thr Val Trp Glu Thr Leu Ser Arg Asp Leu Arg Ala Val Trp Glu Lys
145                 150                 155                 160
Met Arg Gln Val Leu Trp Pro Lys Tyr Leu Met Gly Gly Met Leu Gln
                165                 170                 175
Arg Gly Gly Gly Gly Ile Gly Ala Ala Glu Arg Gly Glu Ala Thr Gly
            180                 185                 190
Phe Gly Gly Gly Leu Arg Gly Leu Val Gly Arg Trp Pro Asp Ala Asp
        195                 200                 205
Val Val Leu Gln Gly Gly Met Ser Glu Gly Leu Arg Asp Trp Asp Leu
    210                 215                 220
Trp
225
```

<210> 31749
<211> 429
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (55)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31749

```
Cys Cys Ser Pro Val Asn Arg Gly Gln Leu Asp Ile Asp Thr Gln Leu
1               5                   10                  15
Gly Gly Pro Met Ala Arg Leu Leu Leu Glu Gly Gly Ser Asp Arg Asp
            20                  25                  30
Cys Tyr Asp Val Phe Ala Leu Leu Asn Gln Thr Thr Gly Leu Pro Ile
        35                  40                  45
Leu Ala Lys Lys Pro Ser Xaa Glu Arg Gln Arg Glu Ser Glu Val Ala
    50                  55                  60
Arg Arg Arg Lys Ser Arg Ser Ala Glu Asn Lys Glu Met Glu Asp Val
65                  70                  75                  80
Pro Phe Val Asp Glu Gly Asn Arg Pro Tyr Lys Pro Ala Glu Thr Glu
                85                  90                  95
Met Glu Glu Arg Glu Glu Lys Thr Glu Gln Thr Glu Glu Glu Glu Asp
            100                 105                 110
Asp Glu Glu Phe Glu Asn Leu Phe Asp Pro Val Val Ser Thr Gly Ser
```

```
        115                 120                 125
Ser Ser Lys Thr Lys Lys Gly Asn Ile Gly Pro Ser Tyr Val Val Leu
    130                 135                 140
Gly Asp Gln Glu Leu Thr Ile Leu Ile Glu Thr Cys Tyr Thr Met Thr
145                 150                 155                 160
Gln Gly Val Gly Thr Gly Lys Ala Tyr Trp Lys Tyr Leu Thr Leu Glu
                165                 170                 175
Asp His Glu Tyr Thr Ile Lys Pro Gly Met Pro Ser Leu His Ala Tyr
            180                 185                 190
Leu Arg Leu Leu Arg Val Tyr Arg Ala Ser Arg Ala Thr Val Asp Val
        195                 200                 205
Val Arg Asp Gln Val Pro Glu Pro Gly Trp Lys Thr Phe His Ile Ala
    210                 215                 220
Met Ser Cys Cys Leu Arg Asp Arg Arg Asn Ile Asn Ile Leu Lys Asn
225                 230                 235                 240
Ala Asn Glu Leu Leu Gly Ile Met Asp Lys Ser Met Val Leu Pro His
                245                 250                 255
Pro Arg Ala Leu Asp Lys Tyr Leu Asn Leu Val Gln Thr Leu Gln Asp
            260                 265                 270
Asn Pro Gln Arg Leu Ile Ser Leu Asn Gly Leu Lys Ile Ala Arg Lys
        275                 280                 285
Pro Ser Asp Ser Leu Asp Val Val Gly Arg Lys Leu Arg Leu Ser Leu
    290                 295                 300
Gln Thr Val Ala Leu Glu Asn Leu Arg Pro His Ile Asp Lys Leu His
305                 310                 315                 320
Glu Ala Leu Lys Asn Gly Lys Thr Ser Phe Ile Ser His Val Glu Arg
                325                 330                 335
Arg Gln Ala Gly Ala Ala Asp Thr Val Cys Gly Ala Thr Ala Arg Thr
            340                 345                 350
Val Met Asp Arg Thr Arg Gly Leu Ile Asp Glu Leu Leu Lys Pro Glu
        355                 360                 365
Asn Ala Pro Phe Leu Ser Lys Ser Asp Arg Glu Gln Leu Glu Gln Glu
    370                 375                 380
Ser Gln Lys Leu Arg Val Tyr Ser Asp Val Glu Met Val Arg Lys Phe
385                 390                 395                 400
Glu Ser Thr Arg Leu His Pro Thr Phe Glu Gln Val Met Ala Phe Gln
                405                 410                 415
Glu Lys His Asp Pro Lys Gln Asn Thr Asp Glu Ala Asp
            420                 425
```

<210> 31750
<211> 85
<212> PRT
<213> A.fumigatus

<400> 31750

```
Val Arg Ala Leu Arg Lys Met Gln Ile Leu Ser Lys Leu Ala Ser Tyr
1               5                   10                  15
Asn Leu Pro Ser Val Lys Glu Met Thr Arg Tyr Thr Gly Glu Ser Leu
            20                  25                  30
Ala Thr Arg Lys Ser Ile Lys Ala Tyr Leu Pro Asn His Ala Ile Ile
        35                  40                  45
His Val Ser Ser Leu Tyr Lys Asn Val Ser Gly Trp Lys Phe Phe Met
    50                  55                  60
Gln Ile Asn Ser Lys Pro Lys Asn Val Pro Gly Arg Cys His Leu Pro
65                  70                  75                  80
```

Thr Ala Thr Ser Ser
85

<210> 31751
<211> 78
<212> PRT
<213> A.fumigatus

<400> 31751
Ala Ile Arg Gly Lys Gly His Leu Ser Cys Ser Phe Leu Leu Arg Arg
1 5 10 15
Ile Gly Phe Tyr Val Asp Ala Leu Thr Gln Phe Asp Met Lys Phe Ser
20 25 30
Ile Tyr Tyr Asn Thr Ile Asn Glu Asn Tyr Gly Ser Gln Gln Ile Asn
35 40 45
Phe Ala Thr Asp Thr Gly Ile Ser Leu Ser Met Ala Tyr Arg Ala Ser
50 55 60
Gln Val Arg Leu Tyr Val Ala Tyr Thr Val Phe Asp Ser Leu
65 70 75

<210> 31752
<211> 400
<212> PRT
<213> A.fumigatus

<400> 31752
Ser Thr Ser Val Phe Arg Gln Leu Arg Val Lys Thr Ser Asp Gly Ala
1 5 10 15
Ala Asn Thr Ala Pro Tyr Ser Arg Leu Asp Ser Arg Gln Arg Lys Lys
20 25 30
Leu His Thr Glu Lys Leu Glu Glu Glu Lys Lys His Phe Thr Gln Val
35 40 45
Ile Ser Glu Leu Glu Glu Ala Leu Gln Asn Met Lys Leu Arg Glu Ala
50 55 60
Glu Leu Leu Arg Glu Lys Ser Glu Trp Met Ala Ala Gln Gln Gln Ile
65 70 75 80
Asn Gln Tyr Ile Glu Gly Leu His Met Asp Lys Asp Glu Met Leu Arg
85 90 95
Val His Thr Leu Glu Thr Ala Glu Leu Arg Lys Lys Asn Asn Ile Leu
100 105 110
Lys Glu Thr Val Glu Lys Leu Glu Arg Gln Met Gly Ser Ser Ala Thr
115 120 125
Asn Asn Leu Asn Thr Asp Phe Ser Asp Phe Glu Asn Phe Thr Met Asp
130 135 140
Asn Ala Pro Trp Glu Asp Phe Thr Ile Ser Asn Ser Leu Pro Leu Glu
145 150 155 160
Ala Glu Ser Thr Pro Ala Thr Ser Thr Met Gln Ser Ser Ala Met Val
165 170 175
Met Ser Ala Ser Asp Arg Val Thr Glu Lys Ser Thr Asn Thr Ala Cys
180 185 190
Asp Tyr Pro Phe Ser Trp Asn Ala Phe Tyr Met Cys Leu Leu Phe Gly
195 200 205
Ala Phe Leu Ala Ser Asn Gly Pro Ser Leu Ser Ser Arg Ser Ile Pro
210 215 220
Gln Leu Ser Glu Glu Tyr Arg Ala Glu Ser Ala Asn Val Leu Lys Ala
225 230 235 240

```
Val Leu Ala Ala Ser Pro Pro Glu Leu Ala Gln Ala Asn Thr Gln Gln
                245                 250                 255
Ala Val Ala Ser Ser Ser Ser Ala Ala Pro Met Pro Thr Thr Ile Ser
            260                 265                 270
Gly Ala Glu Met Ala Gln Met Thr Thr Gly Thr Ala Gln Ser Ser Asn
        275                 280                 285
Leu Asp Glu Leu His Asn Asn Leu Ala Met Pro Thr Lys Glu Gln Glu
    290                 295                 300
Arg Glu Gln Val Phe Ser Leu Asn Ala Asp Gln Tyr Asn Ala Leu Thr
305                 310                 315                 320
Thr Phe Asp Glu Ser His Val Asp Tyr Lys Ser Gln Pro Ser Asn Leu
                325                 330                 335
Gln Gln Ala Leu Ala Ala Met Arg Asn Asn Ala Ala Phe Asn Lys Leu
            340                 345                 350
Pro Asn Lys Ala Thr Ser Asp Val Tyr Thr Arg Ser Leu Met Trp Asp
        355                 360                 365
Arg Val Pro Glu Lys Val Ile Arg Asp Phe Gln Arg Met Val Gln Glu
    370                 375                 380
Phe Gly Ala Ser Pro Ile Lys Glu Glu Gln Ser Gly Phe Ser Gln Ala
385                 390                 395                 400

<210> 31753
<211> 82
<212> PRT
<213> A.fumigatus

<400> 31753
Tyr Ser Gly His Leu Phe Leu Thr Ala Tyr Phe Ser His Leu Val Ser
1               5                   10                  15
Phe Ser Ser Gly Ile Pro Ser Gln Ser His Leu Lys Leu Ala Cys Pro
            20                  25                  30
Ser Arg Lys His Phe Ala Gln Thr Leu Arg Ser Ala Ala Ser Phe Leu
        35                  40                  45
Ala Phe Ile Asn Asp Phe Leu Phe Ser Gln Thr Ser Leu Ala Leu Leu
    50                  55                  60
Ala Leu Tyr Ala Ile Glu Leu Arg Asp Ser Leu Leu Ala Thr Phe Ser
65                  70                  75                  80
Gln Thr


<210> 31754
<211> 122
<212> PRT
<213> A.fumigatus

<400> 31754
Ile Glu Ser Leu His Tyr Ala Thr Leu Gln Ser Ile Ser Arg Leu Arg
1               5                   10                  15
Ser Ser Gly Pro Thr Gln Leu Ile Ile Asp Asp Pro Gly Ile Asp Leu
            20                  25                  30
Phe Met Gln Cys Gly Asn Lys His Asn Trp Arg Met Glu Ile Leu Thr
        35                  40                  45
Tyr Gly Thr Phe His Thr Leu Ser His Ile Lys Gly Lys Val Ser Glu
    50                  55                  60
Trp Ser Lys Glu His Gly Ser Gly Thr Glu Pro Thr Asn Cys Phe Val
65                  70                  75                  80
```

```
Ser Phe Arg Val Ser Gln Gly Ala Trp Val Arg Ile Pro Pro Leu Ser
                85                  90                  95
Phe His Val Ser Phe Cys Leu Phe Ile Ile Val Cys Leu Ile Ile Ser
            100                 105                 110
Ser Leu Ser Asn Asp Thr Val Ile His Glu
        115                 120
```

<210> 31755
<211> 92
<212> PRT
<213> A.fumigatus

<400> 31755

```
Ala Thr Ser Ala Phe Ser Gln Gln His Tyr Thr Ser Asn Ala Glu Leu
1               5                   10                  15
Phe Ile Gln Ala Ala Val Glu Ala Leu His Ala Leu Tyr Ser Arg Ser
            20                  25                  30
Asn Phe Glu Ile Glu Asp Phe Gln Pro Leu Val His Leu Met Tyr Glu
        35                  40                  45
Thr Glu Tyr Leu Thr Leu Leu Arg Lys Leu Tyr Glu Trp Ser Ile Val
    50                  55                  60
Gly Pro Asp Asp Ile Asp Asp Thr Arg Tyr Thr Ile Ser Lys Lys Leu
65                  70                  75                  80
Ser Glu Val Gly Thr Ser Arg Pro Arg Cys Leu Pro
                85                  90
```

<210> 31756
<211> 299
<212> PRT
<213> A.fumigatus

<400> 31756

```
Val Ser Thr Pro Val Asp Gly Met Ala Ala Gln Asp Glu Leu Ser Glu
1               5                   10                  15
Gly Gly Met Ala Asp Leu Val Arg Ala Leu Glu Leu Ile His Asn Pro
            20                  25                  30
Ser Ser Thr Asn Asp Leu Arg Arg Gln Ala Leu Thr Phe Val Glu Ser
        35                  40                  45
Gln Lys Glu Ser Lys Leu Ala Ala Arg Asn Gly Phe Leu Leu Ala Ser
    50                  55                  60
Arg Val Glu Asn Ala Pro Leu Val Arg Tyr Phe Gly Leu Thr Leu Leu
65                  70                  75                  80
Asp His Val Leu Arg His Thr Ser Phe Thr Ala Ala Asp Gln Val Ala
                85                  90                  95
Ile Leu Arg Asp Phe Val Leu Lys Leu Ala Glu Ser Ile Arg Pro Glu
            100                 105                 110
Asp Pro Ala Tyr Tyr Arg Asn Lys Ile Pro Gln Leu Trp Val Glu Ile
        115                 120                 125
Ala Lys Arg Ser Trp Gly Leu Asp Trp Leu Ala Met Asp Glu Ile Leu
    130                 135                 140
Val Gln Phe Trp Gly Ala Ser Leu Val His Lys Glu Leu Val Leu Ser
145                 150                 155                 160
Ile Leu Glu Thr Leu Ser Glu Asp Ile Phe Tyr Arg Glu Asp Thr Val
                165                 170                 175
Ser Ser Leu Arg Gly Thr Asp Leu Asn Arg Ala Leu Val Glu Ile Cys
            180                 185                 190
```

```
Thr Pro Leu Ser Val Phe Glu Glu Ile Tyr Pro Lys Arg Glu His His
        195                 200                 205
Val Glu Leu Arg Cys Gly Thr Glu Gly Trp Leu Ala Arg Thr Cys Glu
    210                 215                 220
Phe Leu Ile Tyr Cys Val Glu Asn Leu Gln Ala Ser Ile Gln Ala Arg
225                 230                 235                 240
Asp Ala Ala Leu Lys Ala Leu Ala Thr Leu Lys Ser Ile Leu Val Trp
                245                 250                 255
Ala Ile Pro Lys Ala Ile Met Ser Thr Asn Cys Val Ser Ser Ile Val
            260                 265                 270
Arg Pro Leu Thr Cys Ser Asp Glu Gln Val Leu Leu Val Ser His Leu
        275                 280                 285
Gly Leu Phe Pro Ala Ala Leu His Glu Gln Cys
    290                 295
```

<210> 31757
<211> 438
<212> PRT
<213> A.fumigatus

<400> 31757

```
Trp Gly Leu Pro Arg Pro Val Leu Leu Ala His Val Val Glu Asp Glu
1               5                   10                  15
Gly Asp Lys Glu Ala Arg Gly Gln Lys Val Val Val Asp Glu Glu Lys
            20                  25                  30
Glu Ala Lys Lys Lys Lys Lys Ala Lys Asp Ala Lys Ala Val Lys Leu
        35                  40                  45
Asp Asp Ala Leu Val Lys Glu Tyr Glu Glu Ile Leu Ala Gln Ile Asp
    50                  55                  60
Asn Phe Asp Gly Thr Gln Leu Glu Glu Ile Ile Ala Lys His Asp Ile
65                  70                  75                  80
Arg Asn Pro Thr Thr Asp Gly Asn Leu Leu Pro Pro Val Ala Phe Asn
                85                  90                  95
Leu Met Phe Gln Thr Ser Ile Gly Pro Ser Ser Asn Met Pro Gly Tyr
            100                 105                 110
Leu Arg Pro Glu Thr Ala Gln Gly Gln Phe Leu Asn Phe Gln Lys Leu
        115                 120                 125
Leu Glu Phe Asn Gln Gln Ser Met Pro Phe Ala Ser Ala Ser Ile Gly
    130                 135                 140
Lys Ser Phe Arg Asn Glu Ile Ser Pro Arg Ala Gly Leu Leu Arg Val
145                 150                 155                 160
Arg Glu Phe Leu Met Ala Glu Ile Glu His Tyr Val Asp Pro Glu Gly
                165                 170                 175
Gly Lys Lys His His Arg Phe Glu Glu Val Lys Asp Ile Glu Met Ala
            180                 185                 190
Phe Leu Asn Arg Asn Val Gln Leu Ser Gly Cys Thr Lys Thr Glu Lys
        195                 200                 205
Met Thr Ile Gly Lys Ala Val Glu Thr Gly Met Val Asp Asn Glu Thr
    210                 215                 220
Leu Gly Tyr Phe Ile Ala Arg Ile Gln Leu Phe Leu Leu Lys Leu Gly
225                 230                 235                 240
Val Asp Pro Asn Lys Leu Arg Phe Arg Gln His Met Ala Asn Glu Met
                245                 250                 255
Ala His Tyr Ala Ala Asp Cys Trp Asp Ala Glu Leu Leu Thr Ser Tyr
            260                 265                 270
Gly Trp Ile Glu Cys Val Gly Cys Ala Asp Arg Ser Ala Tyr Asp Leu
```

```
        275                 280                 285
Thr Val His Lys Asn Lys Thr Gly Ala Pro Leu Val Val Arg Glu Pro
    290                 295                 300
Arg Ala Glu Pro Leu Lys Ile Glu Glu Trp Gln Val Asp Leu Asp Lys
305                 310                 315                 320
Lys Lys Phe Gly Pro Arg Phe Lys Lys Asp Gly Lys Ala Val Ala Ala
                325                 330                 335
Ala Val Glu Ala Leu Ser Gln Glu Leu Arg Glu Lys Leu Ala Ile Asp
            340                 345                 350
Leu Glu Lys Asn Gly Lys Ile Glu Val Asp Val Glu Gly Val Gly Ser
        355                 360                 365
Gly Lys Val Glu Leu Asp Gln Asp Ile Val Lys Ile Glu Lys Arg Thr
    370                 375                 380
Arg Val Glu Asn Val Arg Glu Tyr Thr Pro Asn Val Ile Glu Pro Ser
385                 390                 395                 400
Phe Gly Ile Gly Arg Ile Leu Tyr Ser Met Ile Glu His Val Tyr Trp
                405                 410                 415
Ala Arg Glu Glu Asp Glu Ala Arg Gly Val Arg Ile Pro Ile Ser Ser
            420                 425                 430
Arg Cys Val Gly His Arg
        435
```

<210> 31758
<211> 127
<212> PRT
<213> A.fumigatus

<400> 31758

```
Val Leu Ser Phe Pro Pro Ala Ile Ala Pro Thr Lys Val Leu Ile Val
1               5                   10                  15
Pro Leu Ser Thr His Ala Ser Phe Arg Pro Leu Leu Gln Gln Leu Met
            20                  25                  30
Thr Lys Leu Arg Arg Met Gly Ile Ser Asn Arg Val Asp Asp Ser Ser
        35                  40                  45
Ala Ser Ile Gly Lys Arg Tyr Ala Arg Asn Asp Glu Leu Gly Thr Pro
    50                  55                  60
Phe Gly Ile Thr Val Asp Phe Gln Ser Val Lys Asp Asn Thr Phe Thr
65                  70                  75                  80
Leu Arg Asp Arg Asp Thr Thr Lys Gln Val Arg Ala Ser Glu Asp Glu
                85                  90                  95
Ile Leu Gln Ala Ile Lys Ser Leu Val Asp Gly Glu Lys Thr Trp Glu
            100                 105                 110
Asp Ile Arg Lys Glu Leu Pro Glu Phe Thr Gly Gln Glu Val Asp
        115                 120                 125
```

<210> 31759
<211> 285
<212> PRT
<213> A.fumigatus

<400> 31759

```
Cys Glu Arg Gln Leu Tyr Thr Leu Gln Arg Tyr Gln Pro Ser Gln Met
1               5                   10                  15
Pro Ser Asp Trp Val Ser Ser Ala Leu Leu Cys Leu Phe Thr Thr Glu
            20                  25                  30
Thr Leu Thr Ala Arg Pro Phe Arg Glu Asp Ile Thr Thr Cys Gln Lys
```

```
        35                  40                  45
Lys Gly Lys Thr Ile Leu Leu Ser Ile Gly Gly Ala Thr Tyr Ser Glu
    50                  55                  60
Gly Gly Phe Ser Ser Glu Pro Ala Ala Lys Ala Gly Ala Glu Leu Val
65                  70                  75                  80
Trp Gln Thr Phe Gly Pro Pro Ser Ile Asn Ala Thr Ala His Arg Pro
                85                  90                  95
Phe Gly Asn Ala Ser Val Asp Gly Phe Asp Phe Asp Phe Glu Ala Ser
            100                 105                 110
Val Ser Asn Val Ala Pro Phe Ala Asn Arg Leu Arg Glu Leu Met Asp
        115                 120                 125
Ala Asp His Arg Arg Asp Tyr Phe Leu Thr Ala Ala Pro Gln Cys Pro
    130                 135                 140
Tyr Pro Asp Ala Ala Asp Lys Asp Ile Leu Asn Gly Pro Val Ser Val
145                 150                 155                 160
Asp Ala Val Phe Val Gln Phe Tyr Asn Asn Trp Cys Gly Leu Asn Ser
                165                 170                 175
Phe Glu Ala Gly Glu Ser Lys Gln Asn Ser Phe Asn Phe Asp Val Trp
            180                 185                 190
Asp Asn Trp Ala Lys Thr Val Ser Leu Asn Lys Lys Ala Lys Val Phe
        195                 200                 205
Leu Gly Val Pro Ala Asn Thr Gly Ala Ala Gly Ser Gly Tyr Val Pro
    210                 215                 220
Val Asp Thr Leu Lys Pro Ile Ile Glu Tyr Ser Lys Lys Phe Ser Ser
225                 230                 235                 240
Phe Gly Gly Val Met Met Trp Asp Val Thr Gln Ala Tyr Gly Asn Thr
                245                 250                 255
Gly Phe Leu Asp Gly Val Ala Gln Ala Leu Gly Lys Thr Ala Ser His
            260                 265                 270
Val Arg Arg Ser Cys Arg Tyr Arg Pro Tyr Gly Trp Phe
        275                 280                 285
```

<210> 31760
<211> 103
<212> PRT
<213> A.fumigatus

<400> 31760

```
Val Glu Val Ser Gln Val Ala Val Pro Pro Pro Ser Leu Leu Tyr Arg
1               5                   10                  15
Ile Val Arg Met Val Pro Lys Ser Leu Leu Tyr Thr Ile Phe Ser Ser
            20                  25                  30
Leu Ala Val Ala Leu Ala Ala Ser Val Pro His Thr Asp Tyr Glu Val
        35                  40                  45
Met Ile Ile Gly Gly Gly Pro Ser Gly Leu Ser Ala Ala Ser Gly Leu
    50                  55                  60
Ser Arg Val Arg Arg Lys Asn Ile Val Phe Asp Ser Gly Glu Tyr Arg
65                  70                  75                  80
Asn Gly Pro Thr Arg Asn Met His Asp Val Ile Gly Asn Asp Gly Ser
                85                  90                  95
Cys Pro His Phe Pro Ala Phe
            100
```

<210> 31761
<211> 115
<212> PRT

<213> A.fumigatus

<400> 31761

```
Arg Leu Cys Lys Leu Thr Ser Val Phe Ala Gly Ala Val Pro Ser Asp
1               5                  10                  15
Phe Arg Ala Leu Ala Arg Asn Gln Ile Ser Lys Tyr Asn Gln Thr Thr
            20                  25                  30
Trp Val Asn Glu Lys Val Asp Ser Val Arg Val Ile Thr Asp Glu Glu
        35                  40                  45
Ala Lys His Pro Pro Thr Phe Arg Gly Leu Gly Ser Arg Gly Lys Pro
    50                  55                  60
Lys Gln Ala Gly Arg Ala Ile Pro Trp Asp Arg Ala Gly Arg Ala Ile
65                  70                  75                  80
Leu Pro Gly Asp Thr Pro Ala Trp Asn Lys Thr Trp Gly Lys Arg Gly
                85                  90                  95
Gly Pro Gly Ala Pro Gly Gly Lys Gly Gly Glu Thr Thr Gly Asn Lys
            100                 105                 110
Pro Phe Gly
        115
```

<210> 31762
<211> 484
<212> PRT
<213> A.fumigatus

<400> 31762

```
Thr Met Ala Tyr Leu Gln Ala Gly Val Asn Thr Ser Arg Gly Glu Gly
1               5                  10                  15
Gly Lys Thr Gly Arg Asp Ala Asn Ala Val Ala Leu Glu Gln Gln Ala
            20                  25                  30
Asp Val Asp Glu Asp Thr Leu Lys Glu Ile Tyr Gly Glu Lys Lys Glu
        35                  40                  45
His Val Asn Ile Val Phe Ile Gly His Val Asp Ala Gly Lys Ser Thr
    50                  55                  60
Leu Gly Gly Ser Ile Leu Tyr Val Thr Gly Asn Val Asp Glu Arg Thr
65                  70                  75                  80
Leu Glu Lys Tyr Lys Arg Glu Ala Lys Glu Ala Gly Arg Glu Thr Trp
                85                  90                  95
Tyr Leu Ser Trp Ala Leu Asp Leu Thr Asn Glu Glu Arg Ala Lys Gly
            100                 105                 110
Lys Thr Val Glu Val Gly Arg Gly His Phe Lys Leu Thr Val Gln Ser
        115                 120                 125
Pro Asp Gly Pro Ile Glu Arg His Phe Ser Ile Leu Asp Ala Pro Gly
    130                 135                 140
His Lys Ser Tyr Val His His Met Ile Gly Gly Ala Ser Gln Ala Asp
145                 150                 155                 160
Val Gly Val Leu Val Ile Ser Ala Arg Arg Gly Glu Tyr Glu Thr Gly
                165                 170                 175
Phe Glu Lys Gly Gly Gln Thr Arg Glu His Ala Leu Leu Ala Arg Asn
            180                 185                 190
Thr Gly Val Lys Lys Leu Ile Val Ala Val Asn Lys Met Asp Asp Pro
        195                 200                 205
Thr Val Glu Trp Ser Lys Ala Arg Phe Asp Glu Cys Thr Val Lys Val
    210                 215                 220
Ser Lys Phe Leu Glu Ala Leu Gly Tyr Lys Lys Asp Asp Leu Thr Phe
225                 230                 235                 240
```

```
Met Pro Ile Ser Ala Gln Gln Thr Thr Gly Ile Lys Asp Arg Val Pro
                245                 250                 255
Lys Glu Leu Ala Pro Trp Tyr Asn Gly Pro Ser Leu Leu Glu Tyr Leu
            260                 265                 270
Ala Glu Met Lys Thr Pro Glu Arg Asn Ile Asn Ala Pro Phe Met Met
        275                 280                 285
Pro Val Ser Thr Lys Tyr Arg Asp Met Gly Thr Met Val Glu Gly Arg
    290                 295                 300
Ile Glu Ala Gly Val Ile Lys Lys Asn Ala Thr Cys Ile Met Met Pro
305                 310                 315                 320
Asn Arg Thr Lys Val Glu Ile Ala Ala Leu Tyr Gly Glu Thr Glu Asp
                325                 330                 335
Glu Ile Ala Thr Ala Thr Cys Gly Asp Gln Val Arg Met Arg Leu Arg
            340                 345                 350
Gly Val Glu Glu Glu Asp Leu Leu Pro Gly Phe Val Leu Cys Ser Pro
        355                 360                 365
Lys Arg Leu Val His Cys Val Ser Ala Phe Glu Ala Lys Ile Arg Ile
    370                 375                 380
Leu Glu Leu Lys Asn Ile Leu Thr Ala Gly Tyr Asn Cys Val Met His
385                 390                 395                 400
Val His Ser Ala Val Glu Glu Val Thr Phe Ala Ala Leu Leu His Lys
                405                 410                 415
Cys Glu Pro Gly Thr Gly Arg Arg Ser Lys Arg Pro Pro Pro Phe Ala
            420                 425                 430
Ser Lys Gly Gln Thr Ile Ile Ala Arg Leu Glu Val Ile Ser Ser Ala
        435                 440                 445
Gly Ala Val Cys Val Glu Arg Phe Glu Asp Tyr Asn Gln Met Gly Arg
    450                 455                 460
Phe Thr Leu Arg Asp Gln Val Ser Asp Val Leu Ser Val Pro Tyr Leu
465                 470                 475                 480
Gly Ser His His
```

<210> 31763
<211> 184
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (4)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31763

```
Thr Thr Ala Xaa Ser Tyr Leu Asp Val Gly Ile Thr Leu Thr Ile Asn
1               5                   10                  15
Asn Trp Pro Ala Leu Thr Met Ala Val Gln Ser Asn Trp Gly Gly Pro
            20                  25                  30
Thr Ser Ala Asp Lys Arg Asp Trp Leu Cys Gly Ala Ile Ser Asp Met
        35                  40                  45
Ile Asn Glu Arg Pro Glu Thr Asp Ala Leu Asp Leu Glu Asp Val Leu
    50                  55                  60
Ile Gln Val Met Asn Asp Glu Phe Asp Val Val Val Asp Asp Asp Ser
65                  70                  75                  80
Ala Ala Pro Val Ala Ala Gln Ile Met Ala Ile Arg Glu Gln Thr Ala
                85                  90                  95
```

```
Arg Gly Glu Phe Gly Phe Val Gln Glu Leu Trp Glu Ala Trp Gln Arg
            100                 105                 110
Lys Ala Gln Gln Lys Gly Asn Asn Val Ala Ala Ala Phe Lys Gln Val
        115                 120                 125
Lys Ala Leu Asp Asp Glu Asp Thr Asp Glu Glu Asp Glu Val Glu Glu
    130                 135                 140
Asp Glu Asp Glu Asp Val Asp Met Asp Glu Ala Pro Ala Ile Val Arg
145                 150                 155                 160
Ala Pro Arg Glu Arg Val Glu Leu Glu Val Asp Glu Asp Gly Phe Thr
                165                 170                 175
Lys Val Val Gly Lys Lys Arg Arg
            180
```

<210> 31764
<211> 271
<212> PRT
<213> A.fumigatus

<400> 31764

```
Ser Leu Gly Arg Ala Glu His Glu Ser Arg Glu Glu Val Phe Phe Phe
1               5                   10                  15
Tyr Ala Ser Glu Thr His Thr Asp Leu Ile Thr Thr Gly Cys Ser Gly
            20                  25                  30
Asn Phe Val Phe Ser Leu Thr Val Glu Ser Ser Asn Phe Asp Leu Gly
        35                  40                  45
Ala Ile Arg His His Asp Ala Gly Gly Val Leu Leu Asp Asn Thr Ser
    50                  55                  60
Phe Asp Thr Thr Leu Asn His Arg Ser His Ile Thr Val Leu Arg Ala
65                  70                  75                  80
His Gly His His Glu Gly Gly Ile Asn Val Thr Phe Gly Ser Leu His
                85                  90                  95
Phe Ser Lys Ile Leu Gln Glu Arg Arg Ser Ile Val Pro Trp Cys Lys
            100                 105                 110
Phe Leu Gly Asp Thr Ile Leu Asn Thr Arg Ser Leu Leu Gly Gly Tyr
        115                 120                 125
Gly His Glu Gly Lys Ile Val Leu Leu Val Ala Glu Ser Leu Gln Glu
    130                 135                 140
Leu Gly Asp Leu Asn Cys Thr Leu Ile Glu Thr Ser Leu Ala Pro Phe
145                 150                 155                 160
Asp Ser Arg Val Val His Leu Val Asn Gly Asn Asn Glu Leu Phe Asp
                165                 170                 175
Thr Ser Val Pro Gly Gln Gln Ser Val Leu Ala Ser Leu Ala Thr Leu
            180                 185                 190
Leu Glu Thr Ser Leu Val Phe Thr Pro Thr Ser Arg Asp Asp Lys His
        195                 200                 205
Thr Asp Ile Gly Leu Arg Gly Ala Thr Asn His Val Val Asp Val Gly
    210                 215                 220
Phe Val Thr Arg Ser Ile Glu Asp Gly Glu Val Ser Leu Asn Gly Thr
225                 230                 235                 240
Ile Gly Arg Leu His Gly Glu Leu Glu Val Ala Thr Ala Asp Leu Asp
                245                 250                 255
Ser Leu Ser Leu Ser Ser Phe Phe Val Gly Gln Ile Glu Ser Pro
            260                 265                 270
```

<210> 31765
<211> 475

<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (10)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31765

```
Ile Ile Val Ser Leu Asp Pro Leu Asp Xaa Gly Glu Pro Ala Gly His
1               5                  10                  15
Ser Lys Arg Ala Leu Leu Glu Ser Val Ala Ala Gly Leu Asp Val Ala
            20                  25                  30
Ile Tyr Thr Met Asp Gln Val Glu Glu Leu Gly Thr Ala Ser Asn Arg
        35                  40                  45
Pro Cys Val Pro Pro Ser Pro Ser Asp Ile Val Thr Ile Asn Tyr Thr
    50                  55                  60
Ser Gly Thr Thr Gly Pro Pro Lys Gly Val Val Leu Thr His Glu Asn
65                  70                  75                  80
Ala Val Ala Ala Ala Ser Ser Ala Leu Val Asn Ile Arg Gln Ala Pro
                85                  90                  95
Gly Asp Thr Ser Leu Ser Tyr Leu Pro Leu Ala His Ile Tyr Ala Arg
            100                 105                 110
Leu Ala Glu His Thr Ala Phe Trp Ala Gly Ala Arg Ile Gly Tyr Phe
        115                 120                 125
His Gly Asn Ile Val Glu Leu Val Asp Asp Ile Lys Ala Leu Lys Pro
    130                 135                 140
Thr Ala Phe Phe Ser Val Pro Arg Leu Tyr Ser Arg Phe Gly Asn Val
145                 150                 155                 160
Ile Arg Gly Ala Thr Val Glu Gln Pro Gly Phe Lys Gly Ala Leu Ser
                165                 170                 175
Arg His Ile Val Ala Ala Lys Thr Ala Asn Leu Lys Asn Pro Asp Pro
            180                 185                 190
Ser Lys Ala Thr Val Lys His Ala Leu Tyr Asp Arg Ile Trp Ala Lys
        195                 200                 205
Lys Val Ser Ala Ala Ile Gly Leu Glu Arg Cys Arg Phe Met Val Ser
    210                 215                 220
Gly Ser Ala Pro Leu Asp Pro Ser Leu His Asn Phe Leu Arg Val Ala
225                 230                 235                 240
Phe Gly Val Asp Phe Ile Gln Gly Tyr Gly Leu Thr Glu Thr Tyr Ala
                245                 250                 255
Ile Ala Ser Ser Gln Ser Ala Lys Asp Leu Thr Ala Gly Asn Cys Gly
            260                 265                 270
Arg Ile Ala Pro Ser Thr Glu Ala Cys Leu Met Ser Leu Pro Asp Met
        275                 280                 285
Asp Tyr Ser Val Asp Asp Lys Pro Phe Pro Arg Gly Glu Leu Leu Leu
    290                 295                 300
Arg Gly Thr Asn Ile Phe Arg Glu Tyr Phe Lys Asn Pro Glu Glu Thr
305                 310                 315                 320
Ser Lys Ala Met Thr Glu Asp Gly Trp Phe Arg Thr Gly Asp Val Cys
                325                 330                 335
Thr Ile Asp Glu Met Gly Arg Phe Ile Ile Ile Asp Arg Arg Lys Asn
            340                 345                 350
Val Leu Lys Leu Ala Gln Gly Glu Tyr Ile Ser Pro Glu Arg Leu Glu
        355                 360                 365
Gly Val Tyr Leu Ser Glu Leu Ser Tyr Phe Ala Gln Gly Tyr Val His
```

```
    370                 375                 380
Gly Asp Ser Val Gln Thr Phe Leu Val Gly Ile Phe Gly Val Gln Pro
385                 390                 395                 400
Asp Thr Phe Ala Pro Phe Ala Ser Lys Val Leu Gly Arg Thr Ile Asp
                405                 410                 415
Ala Thr Asp Ile Glu Gly Leu Lys Ser Val Leu Gly Asp Asp Lys Val
            420                 425                 430
Arg Lys Ala Val Leu Arg Asp Leu Glu Lys Ile Ala Lys Lys His Lys
        435                 440                 445
Leu Ala Gly Tyr Glu Arg Val Lys Asn Cys Ala Leu Leu Ile Glu Pro
    450                 455                 460
Phe Ser Val Glu Asn Asn Leu Leu Thr Pro Thr
465                 470                 475
```

<210> 31766
<211> 85
<212> PRT
<213> A.fumigatus

<400> 31766

```
Arg Arg Thr Leu Pro Gln Ser Leu Ala Phe Phe Phe Phe Phe Phe Phe
1               5                   10                  15
Phe Trp Asn Val Ser Ala His Leu Arg Ser Ile Cys Arg Leu Cys Asp
            20                  25                  30
Leu Thr Trp Tyr Val Ala Cys Ile Ile Ser Thr Leu Gly Lys Asn Trp
        35                  40                  45
Thr Cys Trp Leu Leu Asp Lys Cys Glu Ile Ile Gln Asn Phe Val Phe
    50                  55                  60
Val Ser Asn Ala Pro Tyr Cys Ile Thr Cys Lys Met Met Glu Ile Pro
65                  70                  75                  80
Val His Ser Ala Glu
                85
```

<210> 31767
<211> 526
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (34)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31767

```
Pro Pro Ala Asp Thr Ala Ser Thr Trp Gly Arg Arg Arg Ser Ser Cys
1               5                   10                  15
Pro Arg Asp Arg Thr Pro Ile Arg Ile Val Tyr Ala Arg Phe Ser Ala
            20                  25                  30
Asn Xaa Arg Asp Lys Val Asp Lys Thr Leu Leu Phe Tyr Gly His Tyr
        35                  40                  45
Asp Val Val Ser Ala Asp Ala Asn Arg Thr Lys Trp Asn Thr Asp Pro
    50                  55                  60
Tyr Gln Leu Ala Ser Ile Asp Gly Phe Leu Tyr Gly Arg Gly Val Ser
65                  70                  75                  80
Thr Thr Lys Gly Pro Ile Leu Ala Ala Leu Tyr Ala Ala Ala Asp Leu
                85                  90                  95
```

```
Ala Arg Gln Lys Ala Leu Pro Cys Asp Val Val Phe Leu Ile Glu Gly
            100                 105                 110
Glu Glu Glu Ser Gly Ser Gln Gly Phe His Glu Thr Val Arg Gln His
        115                 120                 125
Lys Pro Glu Ile Gly Ser Val Asp Trp Ile Leu Leu Ala Asn Ser Tyr
    130                 135                 140
Trp Leu Asp Asp Tyr Asn Pro Cys Leu Thr Tyr Gly Leu Arg Gly Val
145                 150                 155                 160
Val His Ala Asn Leu Ile Val Thr Ser Asp His Pro Asp Leu His Ser
                165                 170                 175
Gly Ile Asp Gly Ser Ala Leu Leu Asp Glu Pro Leu Lys Asp Leu Ser
            180                 185                 190
Met Leu Leu Ala Ser Leu Val Gly Pro Lys Gly Arg Ile Asn Ile Pro
        195                 200                 205
Gly Phe His Asp Leu Val Leu Pro Leu Thr Glu Ala Glu Lys Gln Arg
    210                 215                 220
Phe Ala Asp Val Ala Arg Ile Leu Leu Pro Gln His Pro Glu Ile Thr
225                 230                 235                 240
Asp Arg Asp Ala Leu Ile Asn Ser Leu Met His Arg Trp Arg Glu Pro
                245                 250                 255
Ser Leu Thr Ile His Ser Val Glu Val Pro Gly Ser Ser Lys Ala Ala
            260                 265                 270
Thr Thr Thr Ile Ser Arg Lys Ala Lys Ala Ser Leu Ser Ile Arg Val
        275                 280                 285
Val Pro Asn Gln Glu Ala Asp Glu Val Ala Ala Asn Leu Thr Met Tyr
    290                 295                 300
Ala Gln Glu Gln Phe Asp Lys Leu Glu Ser Gln Asn Asp Leu Thr Val
305                 310                 315                 320
Glu Ile Thr Gly Lys Ser Asp Pro Trp Leu Gly Asp Pro Asp Asn Glu
                325                 330                 335
Ile Phe Ala Thr Leu Ser Glu Ala Ile Thr Ala Ala Trp Ser Arg Asp
            340                 345                 350
Gln Thr Ser Gln Lys His Gln Tyr Pro Pro Leu Gln Arg Phe Pro Lys
        355                 360                 365
Gly Lys Asp Thr Pro Gly Leu Ala Arg Thr Asp Ser Ser Asp Ser Leu
    370                 375                 380
Ala Ser His Ile Asp Arg Ile Ile Met Ser Thr Thr Thr Ser Ser Ala
385                 390                 395                 400
Ser Lys Ser Lys Ala Arg Gln Arg Ser Ala Leu Ser Ser Thr Val Pro
                405                 410                 415
Thr Ser Ser Thr Leu Thr Ser Lys Ser Gly Val Ile Val Ser Pro Asp
            420                 425                 430
Ala Ser Gly Asp Ser Ser Asp Glu Lys Pro Ala Ala Pro Ala Gln Glu
        435                 440                 445
Pro Val Ala Thr Arg Ser Thr Val Gln Pro Ile Phe Ile Arg Glu Gly
    450                 455                 460
Gly Ser Ile Pro Thr Ile Arg Phe Leu Glu Lys Glu Phe Ser Ala Pro
465                 470                 475                 480
Ala Ala Asn Leu Pro Cys Gly Gln Ala Ser Asp Asn Ala His Leu Tyr
                485                 490                 495
Asn Glu Arg Leu Arg Val Glu Asn Leu Tyr Lys Ser Arg Glu Ile Phe
            500                 505                 510
Gln Tyr Val Phe Ser Arg Leu Pro Arg Arg His Arg Pro Ser
        515                 520                 525
```

<210> 31768

<211> 133
<212> PRT
<213> A.fumigatus

<400> 31768
Leu Leu Ile Phe His Thr Arg Pro Asp Gln Asn Asp Glu Ser Leu Asn
1 5 10 15
Arg Trp Lys Ala Ser Leu Gly Leu Asn Thr Gly Lys Pro Ile Gly Asp
20 25 30
Pro Asn Asp Pro Arg Lys Cys Ile Ile Arg Ser Leu Ser Leu Glu Val
35 40 45
Glu Gly Arg Pro Asp Val Val Ile Glu Leu Ser Ala Pro Gly Ala Leu
50 55 60
Glu Ala Leu Lys Asp Lys Pro Phe Thr Ile Lys Glu Gly Ala Thr Phe
65 70 75 80
Arg Ile Lys Cys Lys Phe Glu Val His His Glu Val Leu Ser Gly Leu
85 90 95
Lys Tyr Leu Gln Val Val Lys Arg Lys Gly Ile Arg Val Ser Lys Asp
100 105 110
Tyr Glu Met Leu Val Ser Ile Ile Asp Ser Gly Ser Val Thr Cys Cys
115 120 125
Val Arg Arg Leu Thr
130

<210> 31769
<211> 137
<212> PRT
<213> A.fumigatus

<400> 31769
Val Leu Arg Ile Leu Leu Gly Ser Phe Ser Cys Ile Leu Leu Asp Leu
1 5 10 15
Tyr Leu Phe Ser Pro Thr Ser Val Arg Tyr Thr Leu His Ile Tyr Ile
20 25 30
Tyr Ile Asp Thr Leu Pro Leu Leu Ser Leu Pro Pro Ser Leu Val Pro
35 40 45
Pro Ser Leu Val Gln Val Pro Arg Gln Lys Arg Ser Arg Gln Gln Thr
50 55 60
Thr Ala Thr Leu Thr Met Thr Glu His Asp Asp Asp Leu Val Ala Ser
65 70 75 80
Lys Thr Glu Gly Phe Lys Val Gly Glu Lys Lys Thr Ile Glu Glu Tyr
85 90 95
Thr Lys Leu Gly Met Ser Arg Leu Leu Arg Leu Pro Tyr Ala Ser His
100 105 110
Ala Gly Asn Ser Ser Leu His Ser Gly Leu Pro Val Ser Pro Leu Pro
115 120 125
Gln Ala Arg Leu Leu Gln Ala Asp Tyr
130 135

<210> 31770
<211> 69
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE

<222> (60)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31770
Ser His Leu Asp Pro Pro Ser Gln Trp His Lys Thr Trp Phe Gln Arg
1 5 10 15
Leu Tyr Thr Leu Leu Gly Ser Ser His Lys Ser Thr Cys Leu Ser Leu
20 25 30
Ser Asp Asp Tyr Asp Leu Arg Leu Asp Ser Arg Pro His Pro His Arg
35 40 45
Pro Ser His Asp Leu Glu Ala Ile Gly Ile Phe Xaa Tyr Ala Pro His
50 55 60
Gln Thr Val Ser Asp
65

<210> 31771
<211> 210
<212> PRT
<213> A.fumigatus

<400> 31771
Asp Leu Ser His Leu Val Pro Gln His Arg Leu Glu Asp Asp Lys Val
1 5 10 15
Arg Lys Gln Leu Val Asn Asn Ser Ala Met Ser Gly Asn Gly Ser Ser
20 25 30
Ser Asn Ala Ala Thr Ser Leu Leu Ala Gly Gly Asn Gly Arg Arg Ala
35 40 45
Thr Ala Gly Asn Ile Thr Met Gly Leu Pro Ile Glu Glu Lys Glu Lys
50 55 60
Gly Pro Asn Lys Gly Asp Ile Leu Asn Gly Ala Val Gly Trp Met Arg
65 70 75 80
Asp Leu Met Trp Ala Leu His Val Lys Leu Gln Gln Glu Ser Glu Leu
85 90 95
Ala Glu Leu Ile Thr Ser Leu Gly Gly Thr Trp Pro Phe Glu Gln Thr
100 105 110
Glu Glu Glu Lys Arg Met Arg Ser Glu Ile Leu Asp Ala Leu Glu Lys
115 120 125
Asn Asp Pro Ser Thr Phe Thr Tyr Ser Arg Gly Pro Gly Ser Gly Leu
130 135 140
Arg Val Pro Lys His Thr Asn Leu Ala Gly Glu Pro Ile Ser Gln Asn
145 150 155 160
Gly Ala Leu Ser Pro Gln Ser Leu Ser Pro Ser Tyr Asn Ser Gly Gly
165 170 175
Ser Ser Asn Gly Gly Asn Ser Gly Gln Ala Gln Tyr Trp Asn Ser Ser
180 185 190
Gly His Ala Gly Met Ser Phe Lys Glu Glu Asp Glu Tyr Ala Met Glu
195 200 205
Met Gln
210

<210> 31772
<211> 165
<212> PRT
<213> A.fumigatus

<400> 31772

```
Ala Gly Gln Asp Pro Ser Ala Gly Ser Arg Phe Arg Arg Gln Val Gln
1               5                  10                  15
Arg Tyr Ala Gly Arg Cys Ala Gln Asp His Arg His Gly Gly Ser Ser
            20                  25                  30
Cys His Val Gln Arg Pro Arg Val Asp Ala Val Ala Ser His Pro Leu
        35                  40                  45
Glu Arg Arg Leu Leu Arg Leu His Leu Pro Ser Pro Arg Ala Ala Pro
    50                  55                  60
Arg Cys Arg Thr Arg Gln Gln Val Pro Ala Asp Pro Gln Arg Pro Asp
65                  70                  75                  80
Arg Gly Tyr His Arg Trp Tyr Arg Gly Tyr Arg Pro Gln His Pro His
                85                  90                  95
Gly Arg Arg Gln Val Ala His Pro Lys Leu Pro Gln Gly Arg Arg Ser
            100                 105                 110
Gly Ala Gln Val Gln Leu Gly Leu Ala Cys Arg Trp His Arg His Glu
        115                 120                 125
Gly Arg Arg Leu Arg Arg Pro Leu Gln Gly Phe His Pro Gln Gly Ala
    130                 135                 140
Pro Ser Arg Ser Arg Trp Trp Tyr Ser Ala Arg Cys Phe His Gly Cys
145                 150                 155                 160
His Gly Leu Phe Pro
                165
```

<210> 31773
<211> 247
<212> PRT
<213> A.fumigatus

<400> 31773

```
Met Ser Glu Ala Asn Arg Gly Thr Leu Ser Arg Phe Ser Arg Leu Tyr
1               5                  10                  15
Arg Gly Ile Ser Ala Pro Ile Leu Met Glu Ala Pro Lys Arg Ala Thr
            20                  25                  30
Lys Phe Ala Ala Asn Asp Ser Trp Gly Ser Phe Tyr Arg Gly Leu Phe
        35                  40                  45
Gly Ala Gln Lys Gln Thr Gln Ser Leu Ala Val Leu Thr Gly Ala Thr
    50                  55                  60
Ala Gly Ala Thr Glu Ala Phe Val Val Val Pro Phe Glu Leu Val Lys
65                  70                  75                  80
Ile Arg Leu Gln Asp Arg Ala Ser Ala Gly Lys Tyr Asn Gly Met Leu
                85                  90                  95
Asp Val Val Arg Lys Ile Ile Ala Thr Glu Gly Pro Leu Ala Met Tyr
            100                 105                 110
Asn Gly Leu Glu Ser Thr Leu Trp Arg His Ile Leu Trp Asn Gly Gly
        115                 120                 125
Tyr Phe Gly Cys Ile Phe Gln Val Arg Ala Gln Leu Pro Ala Ala Glu
    130                 135                 140
Pro Gly Asn Lys Ser Gln Gln Thr Arg Asn Asp Leu Ile Ala Gly Thr
145                 150                 155                 160
Ile Gly Gly Ile Ala Gly Thr Val Leu Asn Thr Pro Met Asp Val Val
                165                 170                 175
Lys Ser Arg Ile Gln Asn Ser Pro Lys Val Ala Gly Gln Val Pro Lys
            180                 185                 190
Tyr Asn Trp Ala Trp Pro Ala Val Gly Thr Val Met Lys Glu Glu Gly
        195                 200                 205
Phe Gly Ala Leu Tyr Lys Gly Phe Ile Pro Lys Val Leu Arg Leu Gly
```

```
    210                 215                 220
Pro Gly Gly Gly Ile Leu Leu Val Val Phe Thr Gly Val Met Asp Phe
225                 230                 235                 240
Phe Arg Lys Ile Arg Gly Glu
                245
```

<210> 31774
<211> 334
<212> PRT
<213> A.fumigatus

<400> 31774

```
Val Leu Ile Ser Leu Ala Leu Asn Ile Gln Arg Tyr Ala His Ile Arg
1               5                   10                  15
Ile Glu Arg Glu Trp Glu Gln Ser Lys Leu Gln Arg Glu Ile Gln Trp
            20                  25                  30
Lys Arg Ala Asn Ser Gly Arg Asn Ala Ala Gly Ala Tyr Gly Thr Thr
        35                  40                  45
Val Ala Glu Glu Asp Asp Arg Glu Phe Arg Arg Gly Gly Arg Leu Phe
    50                  55                  60
Pro Arg Tyr Arg Asp Glu Ser Pro Asp Ser Gly Pro Glu Leu Pro Glu
65                  70                  75                  80
Asp Phe Leu Arg Arg Ser Asp Glu Phe Ser Asp Gly Glu Ser Gly Pro
                85                  90                  95
Arg Gly Arg Leu Arg Glu Ser Phe Leu Ser Asp Gln Thr Ile Arg Ala
            100                 105                 110
Gly Asp Lys Asp Ser Arg His Gly Arg Arg Lys Ser Tyr Leu Arg Ser
        115                 120                 125
Pro Tyr Trp Trp Ala Gly Leu Val Leu Met Cys Leu Gly Glu Ile Gly
    130                 135                 140
Asn Phe Met Ala Tyr Gly Phe Ala Pro Ala Ser Ile Val Ser Pro Leu
145                 150                 155                 160
Gly Val Val Ala Leu Ile Ser Asn Cys Val Ile Ala Pro Ile Met Leu
                165                 170                 175
Lys Glu Lys Phe Arg Gln Arg Asp Ala Trp Gly Val Leu Ile Ala Ile
            180                 185                 190
Ala Gly Ala Val Val Val Val Leu Ser Ala Ser Ser Ser Glu Glu Lys
        195                 200                 205
Ile Gly Pro His Asp Ile Trp Val Met Ile Thr Arg Trp Glu Phe Glu
    210                 215                 220
Leu Tyr Leu Gly Leu Thr Ala Cys Leu Ile Ile Ala Leu Met Trp Val
225                 230                 235                 240
Ser His Lys Tyr Gly Ser Arg Thr Ile Leu Ile Asp Val Gly Leu Val
                245                 250                 255
Ala Leu Phe Gly Lys Ser Gln Ser Leu Leu Met Arg Leu Val Asp Arg
            260                 265                 270
Val Ile Gln Val Leu Ile Gln Ile Ser Arg Trp Ile Tyr Arg Ile Val
        275                 280                 285
Asp Gln Arg Cys Leu Val Thr Ala Val Ile Tyr Ala Met Ala Cys Tyr
    290                 295                 300
Tyr Leu Ser Gly His Leu Ser Thr Gly Val Cys Pro Cys Phe Gln Arg
305                 310                 315                 320
Ser Asp Ala Asn Pro Val His Gln Pro Gly Phe Ala Thr Phe
                325                 330
```

<210> 31775

<211> 422
<212> PRT
<213> A.fumigatus

<400> 31775
Ser Lys Cys Ser Phe Arg Tyr Gln Gly Gly Tyr Thr Ala Leu Ser Thr
1 5 10 15
Lys Gly Val Ser Ser Leu Leu Ser Phe Thr Leu Trp His Val Ile Thr
20 25 30
Phe Pro Val Thr Tyr Leu Leu Val Phe Val Leu Val Phe Ser Ala Leu
35 40 45
Met Gln Ile Arg Tyr Ile Asn Arg Ala Leu Gln Arg Phe Asp Ser Thr
50 55 60
Gln Val Ile Pro Thr Gln Phe Val Leu Phe Thr Leu Ser Val Ile Val
65 70 75 80
Gly Ser Ala Val Leu Tyr Arg Asp Phe Glu Asn Tyr Thr Val Glu Arg
85 90 95
Ala Ser Lys Phe Val Ser Gly Cys Leu Met Thr Phe Leu Gly Val Tyr
100 105 110
Phe Ile Thr Ser Gly Arg Leu Arg Ala Asp Asp Glu Ser Ser Phe Ser
115 120 125
Ile Asp Asp Glu Glu Glu Ala Ile Gly Leu Leu Gly Gly Glu Gln Tyr
130 135 140
Gln Asp Asn Phe Asp Ile Ala Arg Pro Ala His Gln Pro Arg Thr Ala
145 150 155 160
Lys Arg Gly Gln Arg Gln Ser Ile Pro Asp Glu Asn Asp Leu Gln Ser
165 170 175
Pro Leu Gly Ser Phe Leu Gly Ser Gly Ile Glu Asp Val Asp Glu Asp
180 185 190
Gln Leu Thr Pro Lys Gly Ala Leu Ser Ala Ala Pro Ser Ser Pro Val
195 200 205
Gly Ser Ile Thr Ala Glu Ser Pro Thr Gln Pro Ser Pro Gly His Pro
210 215 220
Ser Leu His Ser His Ser His Ser Leu Leu Thr Asn Pro Trp Ala Asp
225 230 235 240
His Leu Glu Gln His Val Gln Ala Ser Asn Ser Glu Pro Gln Leu His
245 250 255
Arg Pro Ala Thr Pro Pro Glu Gln Ser Glu Thr Gly Asn Ala Asp Ser
260 265 270
Ala Val Leu Leu Gln Phe Pro Pro Ala Pro Gly Ile Glu Asp Arg Gly
275 280 285
Tyr Arg Pro Ser Ser Pro Ser Lys Pro Asp His Val Glu Pro Ala Asp
290 295 300
Arg Ala Ser Thr Val Pro Gln Thr Pro Pro Ala Arg Asn Leu Arg Asn
305 310 315 320
Ser Ile Ser Lys His Phe Ser Pro Gly Pro Leu Leu Pro Thr Leu Ser
325 330 335
Ala Gly Phe Ser Ala Val Val Ala Glu Ser Leu Arg Arg Gly Glu Thr
340 345 350
Ser Pro Val Lys Asp Arg Lys Ser His Lys Arg Ser Ala Arg Arg Lys
355 360 365
Gln Leu Ser Thr Thr Val Phe Asp Gly Tyr Thr Arg Asn Arg Asp Arg
370 375 380
Gly Pro Ser Asp Glu Val Asp Ala Gly Val Asp Gln His Leu Pro Leu
385 390 395 400
Gln Leu Ala Thr Ala Arg Leu Arg Ser Val Phe Thr Thr Gly Ala Glu

405 410 415
Gly Ser Ala Leu Cys Val
420

<210> 31776
<211> 63
<212> PRT
<213> A.fumigatus

<400> 31776
Lys Asn Ser Asp Gln Phe Gln His Leu Cys Lys Leu Pro Leu Trp Ser
1 5 10 15
Asp Lys Leu Gln Leu Ser Arg Asp Cys Ile Glu Phe Ala Ile Val Ile
20 25 30
Asp Ser Pro Tyr Met Glu Lys Gly Gly Gly Trp Cys Leu Lys Lys Leu
35 40 45
Met Lys Ala Ala Glu Thr Phe Pro Leu Glu Ala Ala Asn Cys Arg
50 55 60

<210> 31777
<211> 435
<212> PRT
<213> A.fumigatus

<400> 31777
Ala Tyr Ser Pro Pro Pro Ser Cys Phe Pro Thr Val Leu Phe Glu Ile
1 5 10 15
Leu Ala Trp Leu Phe Phe Phe Cys Leu Val Tyr Ala Asn Asp Ala Phe
20 25 30
Ser Ile Lys Ser Ser Gln Pro Asp Arg Gln Ile Ser Gln Ile Glu Lys
35 40 45
Ser Val Thr His Leu Leu Val Ala Thr Lys Gln Leu Leu Glu Thr Leu
50 55 60
Thr Gln Trp Ser Arg Arg Gln Ala Ser Glu Asn Glu Val Ser Asp Val
65 70 75 80
Tyr Val Arg Leu Gly Tyr Glu Phe Asn Leu Ala Cys Arg Ala Phe Asn
85 90 95
Ala Ile Gly Val Asp Thr Ser Asp Leu Gly Pro Val Pro Asp Leu Leu
100 105 110
Arg Thr Ile Leu Glu Asp Thr Leu Ser Gln Asp Ala Ser Pro Gln Ser
115 120 125
Leu Asp Arg Tyr Leu Pro Arg Ile Arg Asp Ile Ile Ile Asn Leu Leu
130 135 140
His Gly Leu Lys Lys Lys Gln Ala Arg Leu Arg Ser Arg Gln Gln Arg
145 150 155 160
Glu Glu Ser Arg Pro Leu Pro Gly Arg Gln Ala Ser Ser Gly Ser Ala
165 170 175
Val Thr Asn Gln Met Tyr Glu Glu Ala Thr Ala Ser Ser Pro Lys Arg
180 185 190
Pro Gly Ser Arg Arg His Gly Ser Asn Gly Ser Leu Glu Asp Gln Ser
195 200 205
Ser Gly Ala His Ser Gly Ser Thr Val Gln Thr Ser Asn Asp Thr Arg
210 215 220
Gly Thr Ser Tyr Ser Glu Arg Glu Ala Ser Arg Arg Glu Ala Gln Gln
225 230 235 240
Ile Leu Ser Gln Pro Ser Gln Pro Glu Thr Ala Ile Ser Asn Val Ala

```
                245                 250                 255
Met Pro Ser Pro Asp Phe Ser Gly Tyr Pro Thr Pro Pro Pro Pro Pro
            260                 265                 270
Pro Pro Pro Lys Gln Asp Asp Ala Leu Gly Ala Leu Gln Arg Ser Gly
        275                 280                 285
Glu Leu Glu Arg Arg Ala Ser Arg Arg Phe Ser Ala Tyr Gln Ile Gln
    290                 295                 300
Lys His Leu Gly Ala Ser Asn Gly Val Pro Val Leu Pro Thr Gln Asn
305                 310                 315                 320
Ser Pro Val Pro Asn Arg Gly Arg Asp Val Arg Glu Ser Leu Asn Ala
                325                 330                 335
Val Arg Leu Arg Gly Ser Tyr Ala His Gly Arg Gln Arg Ser Thr Asn
            340                 345                 350
Arg Pro Gln Asp Ala Val Thr Pro Ser Lys Thr Ala Lys Pro Leu Pro
        355                 360                 365
Ser Ser His Leu Ala Gln Gly Gly Glu Ser Glu Leu Ala Lys Ala Arg
    370                 375                 380
Thr Ala Ser Pro Thr Glu Ser Gln Ala Asn Ala Ser Val Thr Ser Gln
385                 390                 395                 400
Ile Arg Pro Asp Lys Val Pro Leu Arg Ser Glu Asp Gly Thr Ile Asp
                405                 410                 415
Ser Pro Thr Val Ala Gly Lys Gln Pro Gly Ala Pro Gln Ser Ala Glu
            420                 425                 430
Glu Arg Leu
        435
```

<210> 31778
<211> 77
<212> PRT
<213> A.fumigatus

<400> 31778

```
Gly Asp Val Asn Lys Leu Gly Leu Ser Ser Val Glu Gly Leu Gly Trp
1               5                   10                  15
Asn Cys Met Asp Ala Asn Ser Leu Val Phe Ser Phe Thr Ala Ala Arg
            20                  25                  30
Ile Lys Arg Asn Arg Ala Thr Gln Gln Ile Lys Phe Lys Val Arg Cys
        35                  40                  45
His Arg Phe Ile Tyr Thr Leu Val Leu Lys Asp Ser Asp Lys Ala Asp
    50                  55                  60
Lys Leu Lys Gln Ser Leu Pro Pro Gly Ala Leu Pro Thr
65                  70                  75
```

<210> 31779
<211> 62
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (46)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31779

```
Ile Leu Asp Cys Arg Arg Asp Ala Glu Met Ala Ser Gln Cys Thr Phe
1               5                   10                  15
```

```
Arg Ser Ser His Gln Gly Phe Pro Gln Leu Thr Gly Gly Asp Leu Gln
            20                  25                  30
Arg Ala Leu Leu Pro Thr Glu Gln Ala Thr Arg Asp Asp Xaa Leu Glu
        35                  40                  45
Arg Val Arg Ala Asp Leu Arg Val Pro Pro Arg Ser Thr Thr
    50                  55                  60
```

<210> 31780
<211> 390
<212> PRT
<213> A.fumigatus

<400> 31780

```
Gly Tyr Leu Gln Ala Trp Leu Glu Gly Gln Gly Thr Phe Ala Ser Leu
1               5                   10                  15
Ile Leu Ile Ser Thr Ser His Ser Val Leu Lys Cys Arg Cys His Arg
            20                  25                  30
Ser Ser His Thr Ser Asp Val Thr Trp Thr Thr Pro Glu Leu Leu Ser
        35                  40                  45
Arg Leu Val Leu Thr Glu Cys Lys Trp Pro Tyr Gln Arg Trp Gln Ser
    50                  55                  60
Arg Leu Asp Ser Asp Phe Leu Tyr Ser Asp Val Val Ile Gly Thr Ser
65                  70                  75                  80
Ser Tyr Leu Arg Glu His Ser His Gly Lys Asp Met Thr Tyr Ile Lys
                85                  90                  95
Asn Thr Ala Ile Glu Val Ile Glu Phe Val Lys Ser Lys Gly Ile Glu
            100                 105                 110
Ile Arg Phe Ser Ser Glu Asp Ser Phe Arg Ser Asp Leu Val Asp Leu
        115                 120                 125
Leu Ser Ile Tyr Ser Ala Val Asp Lys Val Gly Val Asn Arg Val Gly
    130                 135                 140
Ile Ala Asp Thr Val Gly Cys Ala Ser Pro Arg Gln Val Tyr Glu Leu
145                 150                 155                 160
Val Arg Val Leu Arg Gly Val Val Ser Cys Asp Ile Glu Thr His Phe
                165                 170                 175
His Asn Asp Thr Gly Cys Ala Ile Ala Asn Ala Tyr Cys Ala Leu Glu
            180                 185                 190
Ala Gly Ala Thr His Ile Asp Thr Ser Val Leu Gly Ile Gly Glu Arg
        195                 200                 205
Asn Gly Ile Thr Pro Leu Gly Gly Leu Met Ala Arg Met Met Val Ala
    210                 215                 220
Asp Pro Glu Tyr Val Lys Ser Lys Tyr Lys Leu Glu Lys Leu Lys Asp
225                 230                 235                 240
Ile Glu Asp Leu Val Ala Ala Ala Val Glu Val Asp Ile Pro Phe Asn
                245                 250                 255
Asn Tyr Ile Thr Gly Phe Cys Ala Phe Thr His Lys Ala Gly Ile His
            260                 265                 270
Ala Lys Ala Ile Leu Asn Asn Pro Ser Thr Tyr Glu Ile Ile Asn Pro
        275                 280                 285
Ala Asp Phe Gly Met Thr Arg Tyr Val His Phe Ala Ser Arg Leu Thr
    290                 295                 300
Gly Trp Asn Ala Ile Lys Ser Arg Ala Gln Gln Leu Asn Ile Glu Met
305                 310                 315                 320
Thr Asp Ala Gln Tyr Lys Glu Cys Thr Ala Lys Ile Lys Ala Leu Ala
                325                 330                 335
Asp Ile Arg Pro Ile Ala Val Asp Asp Ala Asp Ser Ile Ile Arg Ala
```

```
            340                 345                 350
Tyr Tyr Arg Asn Leu Lys Ser Gly Glu Asn Lys Pro Leu Leu Asp Leu
        355                 360                 365
Thr Ala Glu Glu Gln Ala Gln Phe Ala Ala Lys Glu Lys Glu Leu Ala
    370                 375                 380
Gly Ser Gly Val Ile Ala
385                 390
```

<210> 31781
<211> 98
<212> PRT
<213> A.fumigatus

<400> 31781

```
Ser Pro Phe Phe Leu Val Pro His Pro Gly Phe Thr Ala Val Glu Thr
1               5                   10                  15
Arg Gln Asn Pro His Pro Ser Ala Ser Arg Asn Pro Tyr Gly His Asn
            20                  25                  30
Val Gly Val Thr Asp Phe Leu Ser Asn Val Ser Arg Phe Lys Ile Ile
        35                  40                  45
Glu Ser Thr Leu Arg Glu Gly Glu Gln Phe Ala Asn Ala Phe Phe Asp
    50                  55                  60
Thr Glu Lys Lys Ile Glu Ile Ala Lys Ala Leu Asp Asp Phe Gly Val
65                  70                  75                  80
Asp Tyr Val Ser His Ser Gln Leu Leu Ser Thr Cys Tyr Trp Glu Asp
                85                  90                  95
Val His
```

<210> 31782
<211> 287
<212> PRT
<213> A.fumigatus

<400> 31782

```
Leu Glu Val Ala Val Val Gly Thr Asp Asn Ala Val Ser Val Val Asn
1               5                   10                  15
Gly Asn Gly Thr Asp Ile Ser Lys Ser Leu Asp Phe Gly Ser Ala Leu
            20                  25                  30
Leu Val Leu Ser Ile Gly His Leu Asn Val Glu Leu Leu Ser Thr Arg
        35                  40                  45
Leu Asp Ser Val Pro Thr Arg Gln Ala Arg Ser Lys Val Asn Val Ser
    50                  55                  60
Gly His Thr Lys Ile Gly Arg Val Asp Asn Leu Val Cys Ala Gly Val
65                  70                  75                  80
Val Glu Asp Gly Leu Gly Val Asp Thr Gly Phe Val Gly Glu Gly Ala
                85                  90                  95
Glu Thr Ser Asp Val Val Val Glu Gly Asn Val Asp Phe Asn Gly Ser
            100                 105                 110
Gly Asn Lys Ile Leu Asn Val Leu Glu Leu Leu Glu Leu Val Leu Ala
        115                 120                 125
Leu Asp Val Phe Arg Val Gly Asp His His Thr Gly His Glu Thr Thr
    130                 135                 140
Lys Gly Ser Asp Ala Val Thr Leu Pro Asp Thr Lys Asp Arg Gly Ile
145                 150                 155                 160
Asp Val Ser Gly Thr Ser Leu Gln Gly Ala Val Ser Val Ser Asp Gly
```

```
                165                 170                 175
Thr Pro Gly Val Ile Val Glu Val Ser Phe Asn Ile Thr Ala Asn Asp
            180                 185                 190
Thr Ser Gln His Thr Asp Glu Phe Val Asn Leu Thr Arg Arg Ser Ala
        195                 200                 205
Ala Asp Ser Val Ser Asn Thr Asn Thr Ile Asn Ala Asp Leu Val Asp
    210                 215                 220
Ser Gly Val Asn Gly Gln Gln Val Asn Glu Val Arg Thr Glu Gly Val
225                 230                 235                 240
Leu Ala Gly Glu Pro Asp Phe Asn Ala Leu Gly Leu Asp Glu Phe Asp
                245                 250                 255
Asp Phe Asn Gly Gly Val Leu Asp Val Gly His Val Leu Ala Val Arg
            260                 265                 270
Val Leu Pro Glu Ile Gly Arg Gly Pro Asn Asn Asp Val Thr Ile
        275                 280                 285
```

<210> 31783
<211> 94
<212> PRT
<213> A.fumigatus

<400> 31783

```
Ile Gln Tyr Phe His Val Cys Leu Asp Pro Ser Thr His Glu Leu Met
1               5                   10                  15
Met Ile Val Asp Asp Thr Leu His Arg Tyr Ser Phe Tyr Ser Ser Ser
            20                  25                  30
Pro Glu Ile His Cys Ser Ser Ser Ala Gly Ala Val His Tyr Glu Ala
        35                  40                  45
Asp Lys Arg Thr Gly Gly Glu Ser Met Phe Arg Asn His Ile Pro Ala
    50                  55                  60
Ile Ser Asn Tyr Asp Arg Pro Ala Thr Ser Pro Arg Ser Ile Thr Gly
65                  70                  75                  80
Asp Ile Ser Gly Asp Asn Val Glu Pro Ser Gly Arg Asp Tyr
                85                  90
```

<210> 31784
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31784

```
Asn Leu Ala Ala Ala Glu Ile Gly Gly Tyr Phe Glu Pro Leu Lys His
1               5                   10                  15
Asp Phe Ile Thr Lys Ser Ser Tyr Ser Cys Ala Thr Asp Ile Val Ile
            20                  25                  30
Thr Tyr Gly Leu Glu Tyr Asp Ser His Cys Ser Met Gly Val Pro Ile
        35                  40                  45
Lys Gly Val Ile Leu Tyr Leu Leu Pro Thr Leu Glu Gly
    50                  55                  60
```

<210> 31785
<211> 94
<212> PRT
<213> A.fumigatus

<400> 31785

```
Lys Gly Pro Met Val Asp Gly Pro Leu Asp His Tyr Ser Ser Val Val
1               5                  10                  15
Asp Ile Asp Leu Asn Gly Thr Phe Tyr Cys Ala Lys Tyr Ala Ala Ala
            20                  25                  30
His Trp Arg Arg Gln Lys Glu Glu Gly Thr Asp Ile Tyr Gly Asn Lys
        35                  40                  45
Leu Ser Asn Phe Thr Tyr Gly Ser Phe Val Ala Thr Ala Ser Met Ser
    50                  55                  60
Gly His Ile Val Asn Phe Pro Gln Met Gln Ala Ala Tyr Asn Ala Ala
65                  70                  75                  80
Lys Ala Ala Val Ile His Leu Cys Lys Phe Gly Trp Leu Glu
                85                  90
```

<210> 31786
<211> 89
<212> PRT
<213> A.fumigatus

<400> 31786

```
Asn Arg Cys Ser Tyr Ser Pro Gly Lys Ser Leu Ala Val Glu Trp Val
1               5                  10                  15
Lys Phe Ala Arg Ala Asn Thr Val Ser Pro Gly Tyr Ile Ala Thr Glu
            20                  25                  30
Ile Ser Asn Phe Val Pro Gln Glu Thr Lys Asp Ile Trp Lys Asp Lys
        35                  40                  45
Ile Pro Met Gly Arg Glu Gly Arg Ala Glu Glu Leu Lys Gly Ala Tyr
    50                  55                  60
Leu Tyr Leu Ala Ser Asp Ala Ala Ser Tyr Thr Thr Gly Ala Asp Leu
65                  70                  75                  80
Val Val Asp Gly Gly Tyr Cys Ala Pro
                85
```

<210> 31787
<211> 334
<212> PRT
<213> A.fumigatus

<400> 31787

```
Leu Leu Pro Gly Cys Cys Ser Cys Gln Glu Gly Val Ala Leu Pro Gln
1               5                  10                  15
Trp Tyr Leu Leu Arg Ser Pro Pro Asn Pro Asn Pro Gln Thr Lys His
            20                  25                  30
Thr Asp Glu Ser Ala Thr Glu Val Glu Phe Thr Gly Ile Lys Arg Arg
        35                  40                  45
Leu Leu Thr Glu Gly Leu Ser Asp Asp Ala Leu Thr Thr Leu Ala Pro
    50                  55                  60
Gly Ala Thr Phe Glu Asp Glu Phe Asp Val Ala Ser Thr Ala Asp Leu
65                  70                  75                  80
Thr Glu Gly Gly Thr Val Thr Ile Arg Thr Asp Gly Phe Val Pro Ile
                85                  90                  95
Thr Thr Asp Arg Lys Val Ser Gly Tyr Ile Pro Tyr Gln Ser Asn Glu
            100                 105                 110
Leu Glu Ile Glu Val Asp Ala Ala Lys Ala Ala Ala Val Pro Gln Ala
        115                 120                 125
Ile Lys Leu Leu Asp Arg Arg Thr Lys Val Ala Ser Cys Ser Gly Ser
    130                 135                 140
```

```
Arg Ala Ser Ala Leu Ser Thr Ala Leu Arg Asn Ala Ala Ser Leu Ala
145                 150                 155                 160
Asn Ala Ala Ala Ser Ala Ala Ser Ser Gly Ser Ser Thr Arg Phe Gln
                165                 170                 175
Glu Tyr Phe Lys Thr Thr Ser Ser Ser Thr Arg Asn Thr Val Ala Ala
            180                 185                 190
Arg Phe Arg Ala Val Ala Ser Glu Ala Ser Ser Gln Ser Ser Gly Lys
        195                 200                 205
Thr Thr Tyr Tyr Cys Thr Asp Pro Tyr Gly Tyr Cys Asp Ser Asn Thr
    210                 215                 220
Leu Ala Tyr Thr Leu Pro Ser Ser Asn Leu Ile Ala Asn Cys Asp Ile
225                 230                 235                 240
Tyr Tyr Ser Tyr Leu Pro Ala Leu Thr Ser Ser Cys His Ala Gln Asp
                245                 250                 255
Gln Ala Thr Thr Thr Leu His Glu Phe Thr His Ala Pro Ala Val Tyr
            260                 265                 270
Ser Pro Gly Thr Asp Asp Tyr Ala Tyr Gly Tyr Arg Ala Ser Thr Ala
        275                 280                 285
Leu Ser Ala Ser Gln Ala Leu Leu Asn Ala Asp Thr Tyr Ala Leu Phe
    290                 295                 300
Ala Asn Gly Thr Pro Pro Leu Leu Pro Leu Ser Thr Ser Thr Ser Lys
305                 310                 315                 320
Cys Ser Thr Leu Thr Met Val Ile Ala Val Asn Leu Asn Cys
                325                 330
```

<210> 31788
<211> 172
<212> PRT
<213> A.fumigatus

<400> 31788

```
Pro Pro Val Leu Val Ile Ser Pro Phe Val Pro Gly Leu Val Arg Asp
1               5                  10                  15
Ile Tyr Thr Ala Ile Ile Ser Leu Gly Gly Val Val Tyr Lys Tyr Gly
            20                  25                  30
Val Asp Pro Arg Ser Ala Arg Arg Ile Ser Lys Ser Thr Ala Ser Val
        35                  40                  45
Lys Gln Leu Ser Pro Ile Gln Phe Ile Met Lys Val Thr Ile Leu Ala
    50                  55                  60
Ser Ala Ile Leu Ala Leu Ile Asn Gly Ala Leu Ala Leu Pro Ala Asn
65                  70                  75                  80
Thr Pro Thr Leu Asp Val Thr Leu Thr Gln Val Asp Asn Thr Arg Ile
                85                  90                  95
Lys Ala Thr Val Lys Asn Thr Gly Asn Glu Lys Val Thr Phe Val His
            100                 105                 110
Leu Asn Phe Phe Gln Asp Ala Ala Pro Val Lys Lys Val Ser Leu Phe
        115                 120                 125
Arg Asn Gly Ile Ser Ser Glu Val Pro Pro Thr Pro Thr Pro Arg Pro
    130                 135                 140
Asn Ile Leu Thr Ser Gln Pro Pro Arg Ser Ser Ser Pro Glu Ser Ser
145                 150                 155                 160
Val Val Ser Ser Leu Lys Ala Ser Leu Thr Met Pro
                165                 170
```

<210> 31789
<211> 151

<212> PRT
<213> A.fumigatus

<400> 31789
Pro Gln Thr Ala Lys Ser Pro Ala Thr Ser Pro Thr Ser Gln Thr Ser
1 5 10 15
Ser Arg Ser Arg Ser Thr Pro Gln Arg Pro Pro Pro Cys Pro Arg Pro
20 25 30
Ser Ser Ser Ser Thr Ala Ala Gln Arg Ser Pro Pro Ala Pro Ala Ala
35 40 45
Val Pro Arg Pro Ser Pro Arg Leu Cys Ala Thr Arg Leu Pro Ser Pro
50 55 60
Thr Pro Leu Pro Ala Leu Pro Pro Pro Ala Arg Leu Leu Ala Ser Arg
65 70 75 80
Ser Thr Ser Arg Pro Pro Pro Ala Ala Pro Ala Thr Pro Ser Pro His
85 90 95
Ala Ser Ala Pro Ser Pro Ala Arg Pro Pro Pro Ser Leu Pro Ala Arg
100 105 110
Arg Pro Thr Thr Ala Pro Thr Pro Thr Ala Thr Ala Thr Pro Thr Pro
115 120 125
Ser Pro Thr Leu Ser Pro Pro Ala Thr Ser Ser Pro Thr Ala Thr Ser
130 135 140
Thr Thr Arg Ile Ser Arg Arg
145 150

<210> 31790
<211> 110
<212> PRT
<213> A.fumigatus

<400> 31790
Thr Leu Thr Ala Ser Gln Tyr Glu Ile Tyr Glu Lys Arg Glu Asn Glu
1 5 10 15
Ile Val Thr Ser Leu Val Leu His Asn Pro Ile Asn Ser Leu Tyr Phe
20 25 30
Leu Ala Tyr Tyr Ser His Pro Phe Asn Gln Ser His Asn Arg Asn Tyr
35 40 45
Lys His Thr Arg Thr Leu Arg Arg Gly Thr Ala Val Asn Pro Ser Gly
50 55 60
Lys Ser Leu Arg Asp Ile Tyr Phe His Tyr Ser Asn Ser Pro Arg His
65 70 75 80
Ser His Thr Ala Gly Asn Pro Arg Arg Ser Pro Ala Thr Ser Asp Ser
85 90 95
Trp Ala Gly Ile Ser Ser Arg Arg Ser Ser Pro Ser Ser Arg
100 105 110

<210> 31791
<211> 213
<212> PRT
<213> A.fumigatus

<400> 31791
Cys Arg Ala Phe Gly Ser Gly Cys Gly Glu Gly Lys Glu Gly Gly Gly
1 5 10 15
Thr Val Ser Glu Gln Gly Ile Gly Ile Arg Val Glu Gln Arg Leu Ala
20 25 30

```
Ser Thr Gln Gly Ser Gly Gly Pro Ile Ser Val Gly Ile Val Val Ser
        35                  40                  45
Thr Gly Arg Val Asp Ser Arg Gly Val Gly Glu Leu Val Gln Gly Gly
    50                  55                  60
Gly Gly Leu Val Leu Gly Val Ala Gly Ala Gly Gln Arg Arg Glu Ile
65                  70                  75                  80
Arg Val Val Asp Val Ala Val Gly Asp Glu Val Ala Gly Gly Glu Ser
                85                  90                  95
Val Gly Glu Gly Val Gly Val Ala Val Ala Val Gly Val Gly Ala Val
            100                 105                 110
Val Gly Arg Leu Ala Gly Arg Leu Gly Gly Gly Leu Ala Gly Asp Gly
        115                 120                 125
Ala Glu Ala Cys Gly Asp Gly Val Ala Gly Ala Ala Gly Gly Gly Leu
    130                 135                 140
Glu Val Leu Leu Glu Ala Ser Arg Arg Ala Gly Gly Gly Ser Ala Gly
145                 150                 155                 160
Ser Gly Val Gly Glu Gly Ser Arg Val Ala Gln Ser Arg Gly Glu Gly
                165                 170                 175
Arg Gly Thr Ala Ala Gly Ala Gly Gly Asp Leu Cys Ala Ala Val Glu
            180                 185                 190
Glu Leu Asp Gly Leu Gly His Gly Gly Gly Leu Cys Gly Val Asp Leu
        195                 200                 205
Asp Leu Glu Leu Val
    210
```

<210> 31792
<211> 69
<212> PRT
<213> A.fumigatus

<400> 31792

```
Pro Tyr Leu Thr Arg Trp Gln Leu Thr Leu Gln Ile Glu Ser Ala Met
1               5                   10                  15
Asn Glu Asp Asn Ser Ser Thr Thr Asp Pro Ala Lys Ile Gln Gln Ala
            20                  25                  30
Asn Lys Thr Phe Ser Arg Asn His Ala Met Ser Ile His Leu Asn Ala
        35                  40                  45
Ile Ala Leu Val Ala Thr Val Trp Tyr Gly Phe Thr Leu Ser Ser Ser
    50                  55                  60
Leu Leu Asn Gly Leu
65
```

<210> 31793
<211> 145
<212> PRT
<213> A.fumigatus

<400> 31793

```
Thr Asn Ala Met Ser Thr Gln His Gly Pro Lys Ser Thr Arg Thr Asn
1               5                   10                  15
Asp Leu Tyr Glu Leu Ala Val Asn Ile Ser Ser Thr Val Glu Ala Phe
            20                  25                  30
Val Gly Arg Leu Asp Ala Ile Gly Ala Glu Arg Pro Asn Leu Asp Asn
        35                  40                  45
Pro Phe Pro Glu Ile Ile Gln Asp Glu Gly Ala Gln Leu Ala Arg Leu
    50                  55                  60
```

```
Lys Ile Leu Arg Leu Cys Glu Arg Leu Met Ala Leu Val Gln Gly Pro
65                  70                  75                  80
Val Gln Trp Leu Met Phe Gln Asn Met Ala Phe Leu Asp Ala Ala Cys
                85                  90                  95
Val Gly Ala Ile Leu Asp Met Gly Ile His Asp Ile Ile Ala Pro Gly
            100                 105                 110
Pro Glu Pro Thr Ser Leu Asp Gln Ile Val Glu Ala Thr Gly Ala Ser
        115                 120                 125
Lys Asp Ile Leu Ser Thr Arg Arg Arg Leu Ser Ser Met Gln Arg Ser
    130                 135                 140
Ser
145
```

<210> 31794
<211> 142
<212> PRT
<213> A.fumigatus

<400> 31794

```
Ile Leu Ala Ala Asn Lys Gly Leu Phe Asp Tyr Phe Tyr Thr Glu Asp
1               5                  10                  15
Leu Ala Arg Gly Gln Arg Phe Ala Leu Gly Met Ala Gly Ser Glu Ile
            20                  25                  30
Met Lys Thr Leu Thr Glu Asp Met Phe Pro Phe Glu Ser Leu Pro Gln
        35                  40                  45
Gly Ala Lys Val Val Asp Val Gly Gly Gly Arg Gly His Val Ser Val
    50                  55                  60
Arg Ile Ala Glu Lys Val Pro Gly Leu Asn Phe Val Val Gln Asp Asp
65                  70                  75                  80
Glu Ser Met Leu Glu Ala Gly Gln Ala Glu Gly Val Pro Lys Ala Val
                85                  90                  95
Lys Asp Arg Ile Glu Phe Met Pro His Asp Phe Phe Asn Glu Gln Pro
            100                 105                 110
Val Lys Gly Ala Asp Val Tyr Leu Leu Arg Phe Ile Leu His Asp His
        115                 120                 125
Ser Asp Arg Leu Val Leu Pro Thr Gly Arg Lys Lys Tyr Gly
    130                 135                 140
```

<210> 31795
<211> 110
<212> PRT
<213> A.fumigatus

<400> 31795

```
Phe Cys Gln Gln Glu Gly Arg Ser Met Ala Asn Ser Pro Ser Arg Cys
1               5                  10                  15
Ala Lys Ile Leu Ser Asn Ile Val Asp Ala Met Glu Pro Gly Lys Ser
            20                  25                  30
Arg Ile Leu Ile Asp Asp Ala Ile Val Pro Ser Phe Leu Gly Pro Glu
        35                  40                  45
Ser Ser Arg Phe Tyr Asn Leu Leu Asp Leu Tyr Met Leu Ala Gly Leu
    50                  55                  60
Asn Gly Lys Glu Arg Thr Leu Glu Gln Trp Asn Tyr Leu Ile Gln Met
65                  70                  75                  80
Val Ser Pro Lys Leu Val Leu Glu Lys Val Trp Lys Thr Pro Asn Gly
                85                  90                  95
```

Gly Pro Glu Ser Gly Thr Ile Leu Glu Leu Arg Leu Gln Glu
100 105 110

<210> 31796
<211> 163
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31796
Xaa His Ile His Phe Gln Tyr Asn Gly Phe Leu Tyr Gly Ile Leu Val
1 5 10 15
Leu Ser Ile Val Leu Ala Arg Lys Pro Ser Thr Leu Leu Tyr Ser Gly
20 25 30
Ile Leu Phe Ala Val Leu Leu Cys Phe Lys His Ile Tyr Leu Tyr Leu
35 40 45
Ser Leu Ala Tyr Phe Val Tyr Leu Leu Arg Ala Tyr Cys Leu Asp Pro
50 55 60
Lys Ser Val Phe Arg Pro Arg Phe Gly Asn Thr Leu Lys Leu Gly Leu
65 70 75 80
Ser Val Ile Gly Val Phe Gly Ile Ala Phe Gly Pro Phe Ala His Trp
85 90 95
Asn Gln Leu Leu Gln Leu Lys Asp Arg Leu Phe Pro Phe Ser Arg Gly
100 105 110
Leu Cys His Ala Tyr Trp Ala Pro Asn Ile Trp Ala Met Tyr Ser Phe
115 120 125
Ala Asp Arg Val Leu Ile Leu Arg Glu Tyr Asn Asn Leu Arg Leu His
130 135 140
Leu Cys Arg Phe Thr His His Asn Ser Cys Ser Ala Pro Gly Pro Ser
145 150 155 160
Asp Gln Pro

<210> 31797
<211> 174
<212> PRT
<213> A.fumigatus

<400> 31797
Leu Pro Leu Ile Lys Leu Trp Leu His Pro Asp Trp Asn Thr Phe Val
1 5 10 15
Gly Ala Ile Thr Leu Cys Gly Tyr Ala Ser Phe Leu Phe Gly Trp His
20 25 30
Val His Glu Lys Ala Val Leu Leu Ile Ile Val Pro Phe Ser Leu Ile
35 40 45
Ala Leu Lys Asp Arg Arg Tyr Phe Ser Ala Phe Arg Pro Leu Ala Val
50 55 60
Ala Gly His Val Ser Leu Phe Pro Leu Leu Phe Thr Ala Ala Glu Phe
65 70 75 80
Pro Leu Lys Thr Val Tyr Thr Val Trp Trp Leu Val Leu Phe Leu Phe
85 90 95
Val Phe Asp Gln Val Ala Pro Val Ser Glu Arg Pro Arg Met Phe Val

```
            100                 105                 110
Phe Asp Arg Leu Ser Leu Val Tyr Leu Thr Val Ala Ile Pro Leu Ile
        115                 120                 125
Ile Tyr Cys Ser Leu Val His Gln Leu Ile Phe Gly Trp Asp Arg Tyr
    130                 135                 140
Glu Phe Leu Pro Leu Met Phe Met Ser Ser Tyr Ser Ala Leu Gly Val
145                 150                 155                 160
Val Gly Ser Trp Val Gly Phe Met Val Val Tyr Phe Thr Thr
                165                 170
```

<210> 31798
<211> 370
<212> PRT
<213> A.fumigatus

<400> 31798

```
Phe Tyr Ser Phe Ala Gln Tyr Arg Asp Ile Gln Thr Asn Met Ser Gly
1               5                   10                  15
Val Phe Gly Leu Leu Phe Ser Arg Leu Thr Leu Pro Ala Pro Ser Ala
            20                  25                  30
Ile Gln Gly Lys Thr Ile Leu Ile Thr Gly Ala Asn Thr Gly Leu Gly
        35                  40                  45
Arg Glu Ala Ala Arg His Ala Leu Ala Leu Gly Ala Gly Thr Val Ile
    50                  55                  60
Leu Gly Val Arg Ser Leu Ser Lys Gly Glu Asp Ala Lys Ala Asn Ile
65                  70                  75                  80
Asp Ala Ser Thr Gly Cys Thr Asp Lys Gly Lys Val Leu Val Trp Pro
                85                  90                  95
Ile Asp Leu Glu Ser Phe Ala Ser Val Gln Gly Phe Ala Ala Arg Val
            100                 105                 110
Arg Lys Tyr Val Thr Glu Gly Gly Arg Leu Asp Met Ala Ile Met Asn
        115                 120                 125
Ala Gly Ile Ala Ser Val Thr Tyr Ala Val Thr Arg Asp Gly Trp Glu
    130                 135                 140
Arg Gly Ile Gln Val Asn Val Leu Ser Thr Ala Leu Leu Ser Leu Glu
145                 150                 155                 160
Leu Leu Pro Leu Leu Leu Arg Thr Lys Glu Arg Asp Ser Ser Ser Gln
                165                 170                 175
Pro His Leu Thr Ile Val Thr Ser Asp Ile His Lys Ser Ile Lys Phe
            180                 185                 190
Pro Glu Arg Asn Glu Gln Asn Ile Leu Ser Ala Leu Asn Asp Glu Lys
        195                 200                 205
Gln Trp Arg Glu Ser Gln Ala Val Gly Gly Ala Thr Glu Arg Tyr Gly
    210                 215                 220
Val Thr Lys Leu Met Asp Leu Phe Ile Thr Phe Glu Ile Ala Gln Leu
225                 230                 235                 240
Val Pro Arg Asp Lys Ser Gly Asn Pro Leu Val Ile Val Asn Ala Val
                245                 250                 255
Ala Pro Gly Phe Cys Lys Ser Asp Leu Leu Ser Arg Glu Lys Val Pro
            260                 265                 270
Leu Ile Leu Lys Leu Ile Gln Ala Leu Ile Ala Met Thr Ala Glu Lys
        275                 280                 285
Gly Ser Lys Thr Leu Leu His Ala Ala Ser His Gly Ala Glu Thr His
    290                 295                 300
Gly Lys Trp Leu Asp Asn Gln Ile Ile Thr Glu Tyr Val Val Thr Leu
305                 310                 315                 320
```

```
Ile Gly Asp Val Ile Val Arg Ala Ala Asp Met Cys Phe Arg Pro Gly
                325                 330                 335
Asn Ile Ile Thr Ser Pro Glu Ala Val Val Leu Arg Lys Lys Leu Trp
            340                 345                 350
Ala Glu Ile Leu Ser Val Leu His Asp Val Asn Pro Glu Ile Gln Thr
        355                 360                 365
Glu Ser
    370
```

<210> 31799
<211> 79
<212> PRT
<213> A.fumigatus

<400> 31799

```
Phe Glu Val Asp Trp Pro Asn Lys Tyr Leu Ser Leu Val Cys Ala Ala
1               5                   10                  15
Gly Thr Cys Val Asp Val Gly Phe Gly Val Phe Ala Leu Ala Gln Ala
            20                  25                  30
Ser Asn Ala Gln Asn Asp Arg Thr Gly Ala Gln Gly Glu Arg Met Ser
        35                  40                  45
Gly Ser Phe Thr Thr Glu Ala Ser Val Arg Thr Gly Asp Glu Asp Ser
    50                  55                  60
Phe Pro Leu Asp Cys Arg Gly Ser Trp Glu Ser Gln Pro Ala Lys
65                  70                  75
```

<210> 31800
<211> 143
<212> PRT
<213> A.fumigatus

<400> 31800

```
Ala Leu Phe Glu Leu Val Thr Gly Asn Leu Cys Thr Ala Asn Tyr Tyr
1               5                   10                  15
Gly Ser Ala Ala Ala Arg Met Ile Tyr Met Leu Gly Gly His Thr Tyr
            20                  25                  30
Pro Gly Pro Ile Asn Ser Phe Ser Ala Ser Pro Ala Glu His Leu Glu
        35                  40                  45
Gln Arg Lys Lys Arg His Leu Arg Asn Leu Phe Trp Leu Cys Tyr Thr
    50                  55                  60
Ile Glu Lys Asp Val Ala Leu Arg Thr Gly Gln Pro Gln Val Leu Ser
65                  70                  75                  80
Asp Glu Asn Cys Asp Leu Thr Leu Pro Pro Gly Tyr Val Glu His Leu
                85                  90                  95
Tyr Arg Ser Leu Gly Ile His His His Ser Arg Glu Leu Pro Asp His
            100                 105                 110
Pro Met Phe Pro Val Asp Leu Arg Leu Ser Ile Ile Lys Ser Arg Ala
        115                 120                 125
Tyr Ser Ala Leu Tyr Ser Phe Arg Gly Leu Gln Lys Thr Asp Ala
    130                 135                 140
```

<210> 31801
<211> 101
<212> PRT
<213> A.fumigatus

<400> 31801
Phe Ala Val His Arg Leu Pro Val Thr Ser Ser Lys Ser Ala Tyr Glu
1 5 10 15
Ser Val Ser Phe Val Glu Glu Arg Tyr Ser Lys Val Thr Gln Leu Ala
20 25 30
Arg Gln Phe Ala Arg Cys Gln Ala Ser Met Thr Thr His His Asn Asp
35 40 45
Lys Arg Leu Gln Thr Leu Gln Ala Arg Ile Leu Pro Glu Asp Leu Arg
50 55 60
Asp Glu Thr Leu Ser Leu Glu Gly Lys Ser Leu Ala Val Asp Arg Arg
65 70 75 80
Glu Ala Lys Arg Ser Ile Leu Val Phe Arg Asn Leu Glu Asn Gly Thr
85 90 95
Lys Gly Lys Lys Gly
100

<210> 31802
<211> 374
<212> PRT
<213> A.fumigatus

<400> 31802
Arg Arg Leu Asp Ser Leu Gly Asp Met Gly Gly Pro Thr Leu His Leu
1 5 10 15
Tyr Leu Leu Ser Asp Asn Val Thr Glu Lys Glu Asp Phe Tyr Phe Gly
20 25 30
Met Leu Gln Asn Gln Thr Arg Met Gly Asp Ser Pro Asn Cys Pro Pro
35 40 45
Lys His Gln Gln Phe Asp Val Lys His Ile Val Thr Ile Val Gln Arg
50 55 60
Ile His Ser Ser Glu Glu Gln Leu Gln Thr Arg Trp Ile Asn Ala Val
65 70 75 80
Leu Gly Arg Leu Phe Leu Ala Leu Tyr Lys Thr Pro Glu Val Glu Asp
85 90 95
Phe Ile Arg Gln Lys Ile Thr Lys Lys Ile Ser Arg Val Asn Lys Pro
100 105 110
Asn Phe Ile Ser Lys Leu Cys Leu Gln Arg Ile Gly Met Gly Glu Gly
115 120 125
Ala Pro Phe Ile Thr Asn Pro Arg Leu Lys Asp Leu Thr Val Asp Gly
130 135 140
Asn Cys Cys Val Glu Thr Asp Ile Gln Tyr Thr Gly Asn Phe Arg Leu
145 150 155 160
Glu Ile Ser Ala Thr Val Arg Ile Asp Leu Ser Pro Arg Phe Lys Ala
165 170 175
Arg Glu Val Asp Ile Val Leu Ala Val Val Leu Lys Lys Leu Glu Gly
180 185 190
His Met Leu Ile Arg Phe Lys Pro Pro Pro Ser Asn Arg Val Trp Val
195 200 205
Ser Phe Glu Thr Met Pro Asn Met Val Met Asp Ile Glu Pro Ile Val
210 215 220
Ser Ser Lys Gln Ile Thr Tyr Gly Ile Ile Leu Arg Thr Ile Glu Ser
225 230 235 240
Arg Ile Arg Glu Val Val Ala Glu Ser Val Val Gln Pro Tyr Trp Asp
245 250 255
Asp Ile Pro Phe Leu Asp Thr Ala Ser Gln Pro Tyr Arg Gly Gly Ile
260 265 270

```
Trp Gln Arg Glu Val Pro Gly Gln Asp Ser Lys Ala Glu Ile Pro Asp
        275                 280                 285
Glu Ser Ile Ser Gln Pro Gln Thr Leu Thr Thr Lys Asp Ser Thr Glu
    290                 295                 300
Ala Leu Lys Thr Lys Asp Asp Arg Ala Met Ser Met Pro Val Leu Leu
305                 310                 315                 320
Glu Thr Thr Ala Gly Leu Lys Ser Arg Lys Ser Ser Lys Leu Val Thr
                325                 330                 335
Thr Asp Ser Glu Thr Ser Ile Ser Ser Ala Val Asp Lys Thr Gly Gly
            340                 345                 350
Leu Cys Ser Ala Ala Arg Tyr Ser Ile Ser Asn Val Phe Glu Cys Gly
        355                 360                 365
Arg Ser Cys Arg His Cys
    370
```

<210> 31803
<211> 386
<212> PRT
<213> A.fumigatus

<400> 31803

```
Asn His Ala Lys Ala Pro Ser Trp Leu Gln Gln Thr Arg Lys Arg Val
1               5                   10                  15
Tyr His Gln Pro Leu Ile Lys Leu Ala Val Cys Ala Pro Pro Arg Ala
            20                  25                  30
Ile Arg Ser Gln Thr Phe Ser Asn Val Ala Asp Pro Val Val Thr Ala
        35                  40                  45
Asp Asn Val Lys Ile Glu Lys Ala Thr Ser Asp Ile Lys Gly Glu Glu
    50                  55                  60
Lys Ser Ser Ala Ala Ser Ala Met Ile Glu Ile Ser Asn Arg Ser Pro
65                  70                  75                  80
Pro Gly Ser Pro Asn Lys Thr Pro Asn Gly Ser Pro Pro Ser Ile Ser
                85                  90                  95
Gln Met Asn Pro Glu Lys Leu Ser Ser Ser Arg Gly Ser Ser Phe Met
            100                 105                 110
Glu Ser Ile Glu Ser Val Ser Glu Phe Ala Ser Ser Ser Pro Thr Arg
        115                 120                 125
Pro Thr Ser Ala His Leu Ala Ser Glu Ser Ser Asn Ala Leu Arg Gly
    130                 135                 140
Ala Asn Gly Ser Ser Asn Ala Ser Ile Asn Ser Asp Arg Ser Arg Arg
145                 150                 155                 160
Arg Ser Thr Leu Glu Thr Val Gly Thr Leu Thr Arg Ser Val Thr Ser
                165                 170                 175
Ser Thr Ala Ser Glu Glu Lys Pro Lys Leu Ser Ile Ser Leu Gly Thr
            180                 185                 190
Ala Thr Ala Ala Ala Lys Lys Trp Ser Trp Ser Val Phe Gly Lys Gly
        195                 200                 205
Asp Ser Asn Ser Gln Glu Ile Ser Arg Pro Ala Gly Thr Pro Asp Glu
    210                 215                 220
Pro Ile Gly Arg Gly His Pro Leu Pro Pro Pro Gly Thr Pro Leu Pro
225                 230                 235                 240
Arg Pro Asp Lys Phe Gly Ile Lys Ser Asn Pro Ile Pro Arg Arg Lys
                245                 250                 255
Pro Val Pro Pro Pro Leu Pro Gly Arg Ser Lys Gly Asp Ala Lys Arg
            260                 265                 270
Pro Val Pro Lys Pro Pro Leu Pro Lys Arg Lys Pro Pro Ala Arg Pro
```

```
        275                 280                 285
Glu Gly Asp Glu Ser Ser Pro Asp Glu Leu Leu Val Val Glu Ala Pro
    290                 295                 300
Tyr Asp Ser Thr Pro Asn Ser Pro Ala Pro Asp Ser Ser Ser Glu Ile
305                 310                 315                 320
Gly Ile Val Leu Pro Ile Ala Thr Gln Ala Asn Thr Arg Asp Leu Ser
                325                 330                 335
Arg Ser Gly Ser Asp Asp Val Val Ala Ser Arg Arg Trp Asp Asp Gly
            340                 345                 350
Thr Glu Gln Lys Ser Ser Glu His Asp Ser Phe Gly His Gly Met Pro
        355                 360                 365
Gly Val Thr Lys His Gly Met Glu Ile Leu Ser Ala Thr Asp Gly Ile
    370                 375                 380
Leu Pro
385
```

<210> 31804
<211> 69
<212> PRT
<213> A.fumigatus

<400> 31804

```
Arg Phe Gly Arg Leu Ser Gly Lys Leu Ala Pro Ala Val Arg Pro Ser
1               5                   10                  15
Gln Val Leu Ala Thr Arg Ser Pro Pro Asp Ser Ser Ile Ser Leu Thr
            20                  25                  30
Glu Gly Met Lys Pro Asn Ile Val Ile Thr Tyr Val Lys Leu Leu Pro
        35                  40                  45
Ser Asp Gly Ser Lys Tyr Val Ile Ser Leu Arg Thr Gln Val Thr Ala
    50                  55                  60
Val Cys Ser Ile Cys
65
```

<210> 31805
<211> 174
<212> PRT
<213> A.fumigatus

<400> 31805

```
Met Gly Thr Ile Pro Gly Gly Met Thr Asn Gly Thr Arg Asn Trp Val
1               5                   10                  15
Phe Arg Lys Ala Leu Ser Pro Ser Ser Ala Ala Ala Ser Thr Asn Leu
            20                  25                  30
Pro Asp Pro Ile Thr Pro Ser Gly Pro Ala Phe Ser Lys Thr Ser Thr
        35                  40                  45
Ile Gly Asn Val His Thr Arg Thr Met Lys Gln Thr Ala Val Thr Leu
    50                  55                  60
Phe Arg Phe Ser Ala Leu Thr Phe Asn Pro His Lys Ile His Tyr Ser
65                  70                  75                  80
Leu Pro Trp Ala Arg Asp Val Glu Gly His Arg Asp Ile Val Val His
                85                  90                  95
Gly Pro Leu Asn Leu Ile Asn Ile Leu Asp Leu Trp Arg Asp Thr Arg
            100                 105                 110
Thr Ala Thr Leu Ala Ser Glu Ala Pro Glu Leu Ile Leu Pro Gln Ser
        115                 120                 125
Ile Ser Tyr Arg Ala Thr Ser Pro Leu Tyr Ala Glu Glu Glu Tyr Arg
```

```
    130                 135                 140
Ile Ile Leu Glu Asp Glu Asp Ser Ile Ala Lys Val Gln Val Ile Gly
145                 150                 155                 160
Pro Asp Gly Lys Thr Val Ala Met Lys Ala Asp Ile Lys Ser
                165                 170
```

<210> 31806
<211> 205
<212> PRT
<213> A.fumigatus

<400> 31806

```
Phe Ala Asp Leu Ala Leu Leu Leu Leu Arg Asp Trp Ser Glu Arg Pro
1               5                   10                  15
Thr Ala Asn Trp Trp Ser Ile Ser Gly Ser Ser Ala Ser Ala Ala Ser
            20                  25                  30
Ala Arg Arg Arg Lys Ala Lys Ala Leu Val Thr Lys Thr Thr Arg Arg
        35                  40                  45
Trp Trp Pro Thr Thr Pro Ala Lys Pro Leu Thr Ala Thr Leu Ser Thr
    50                  55                  60
Arg Pro Ser Thr Thr Gln Ile Ser Pro Thr Leu Arg Thr Thr Pro Val
65                  70                  75                  80
Arg Ser Arg Ser Thr Ser Lys Ala Thr Pro Met Phe Ala Ala Ala Arg
                85                  90                  95
Ala Arg Arg Ala Ser Arg Thr Ser Ser Thr Ser Val Arg Cys Leu Arg
            100                 105                 110
Arg Thr Thr Arg Trp Ile Ser Trp Leu Pro Thr Arg Trp Pro Ala Phe
        115                 120                 125
Leu Pro Pro Ser Pro Ala Ser Ala Ser Ser Ile Pro Ala Arg Ala Pro
    130                 135                 140
Gly Lys Ser Met Pro Pro Asn Ser Ala Gln Met Ala Ala Ser Ser Ser
145                 150                 155                 160
Ala Met Arg Arg Thr Thr Thr Ser Thr Cys Pro Val His Leu Glu Ala
                165                 170                 175
Thr Pro Thr Gln Ala Arg Ala Ala Ser Thr Pro Thr Trp Pro Leu Ser
            180                 185                 190
Ala Asp Arg Thr Pro Ser Ala Ala Val Lys Arg Ala Val
        195                 200                 205
```

<210> 31807
<211> 261
<212> PRT
<213> A.fumigatus

<400> 31807

```
Asp Val Ser Gly Gly Gln Pro Ala Gly Ser Pro Gly Ser Arg Arg Ala
1               5                   10                  15
Gly Gln His Phe Tyr His Gln Ala Gln Arg Pro Leu Pro Gln Tyr Arg
            20                  25                  30
Pro Gly Leu Pro Glu Lys Ala Cys Arg Gln Ile Arg Pro Arg Trp Pro
        35                  40                  45
Pro Pro His Arg Arg Cys Gly Glu Arg Arg His Arg His Val Arg Cys
    50                  55                  60
Thr Trp Arg Arg Arg Arg Pro Arg Arg Glu Arg His Gln Arg Leu Pro
65                  70                  75                  80
Gly Arg Cys Gln Arg Thr Gly Arg His Pro Pro Arg Ser Lys Gly Pro
```

```
                85                  90                  95
Ser Glu Asp Val Ser Gly Pro Glu Glu Glu Glu Gln Arg Arg Arg Arg
            100                 105                 110
His Gly Pro Arg Arg Gln Arg Gly Arg Arg Arg Ser Pro Gly Leu Arg
        115                 120                 125
Ile Gln Pro Trp Gln Gly Pro Thr Val His Pro Ser Arg Ala Arg Ser
    130                 135                 140
Ala Gln Asp Thr Trp Pro Gln Arg Gln Arg Gln Asp Pro Glu Thr Glu
145                 150                 155                 160
Lys Ser Ser Gln Gly Gly Lys Thr Glu Arg Thr Arg Arg His Pro Cys
                165                 170                 175
Trp Glu Glu Thr Val Lys Val Glu Met Lys Arg Ala Val Cys Phe Leu
            180                 185                 190
Arg Gly Asn Trp Gln Leu Phe Ser Met Pro Met Tyr Gly Val Trp Ala
        195                 200                 205
Met Thr Thr Gln Tyr Ile Gly Thr Trp Asp Leu Asn Met Thr Ile Trp
    210                 215                 220
His Tyr Ser Ile Leu His Thr Glu Lys Ile Leu Ala Ile Phe Phe Ser
225                 230                 235                 240
Val Pro Phe Pro Phe Leu Ser Gln Gly Val Arg Pro Leu Arg Tyr Leu
                245                 250                 255
His Ser Met Phe Phe
            260
```

<210> 31808
<211> 582
<212> PRT
<213> A.fumigatus

<400> 31808

```
Arg Arg Ser Gly Asp Lys Arg Pro Pro Thr Ser His Thr Leu Ile Asp
1               5                   10                  15
Leu Val Ile Ala Met Ser Ile Tyr Leu Pro Arg Ser Ser Phe Ala Ser
            20                  25                  30
Leu Phe Ala Leu Ala Ala Ala Ile Leu Asn Gly Gln Thr Thr Asp Gln
        35                  40                  45
Gln Leu Ile Lys Lys Ala Tyr Lys Leu Ile Pro Arg Leu Ala Thr Thr
    50                  55                  60
Glu Thr Gly Arg Thr Ala Leu Leu Glu Arg Ser Ala Glu Leu Gln Ser
65                  70                  75                  80
Leu Met Leu Ala Thr Ala Asp Lys Thr Pro Ala Ser Ala Arg Arg Asp
                85                  90                  95
Arg Ser Leu Ala Ile Tyr Glu Leu Ile Thr Tyr Leu Pro Thr Ser Asp
            100                 105                 110
Leu His Phe Ile Pro Ser Ile Leu Ser Glu Val Val Leu Gly Cys Lys
        115                 120                 125
Glu Ser Asn Glu Lys Ala Arg Thr Ala Ser Phe Asp Leu Leu Ile His
    130                 135                 140
Leu Ala Lys Arg Thr Ile Asp Ser Asp Arg Asn Pro Pro Gly Thr Lys
145                 150                 155                 160
Ile Arg Asn Ser Leu Val Pro His Met Pro Asn Asp Ala Pro Asp Ala
                165                 170                 175
Pro Ala Thr Ile Glu Glu Phe Phe Thr Met Val Ser Ala Gly Leu Ala
            180                 185                 190
Gly Ser Ser Pro His Met Val Ala Ala Ser Val Thr Ala Leu Ser Arg
        195                 200                 205
```

```
Leu Phe Phe Asp Phe His Thr Gln Leu Glu Pro Ser Val Arg Ile Asp
    210                 215                 220
Leu Val Gln Thr Val Glu Leu Phe Leu Thr Ser Asn Asn Arg Glu Ile
225                 230                 235                 240
Val Arg Ser Val Leu Gly Phe Val Lys Val Ala Val Val Val Leu Pro
                245                 250                 255
Glu Asp Ala Leu Arg Pro Arg Leu Asn Thr Leu Val Pro Asn Leu Met
            260                 265                 270
Val Trp Asn Lys Glu His Lys Gly Arg Val Arg Ser Lys Val Lys Gly
        275                 280                 285
Ile Leu Asp Arg Leu Ile Arg Arg Phe Gly Ala Pro Leu Ile Glu Gly
    290                 295                 300
Leu Val Gly Glu Ala Asp Arg Lys Leu Val Val Asn Ile Arg Lys Gln
305                 310                 315                 320
Arg Glu Arg Arg Lys Arg Lys Lys Lys Glu Gly Glu Gly Ala Gly Asp
                325                 330                 335
Glu Asp Asp Glu Glu Val Val Ala Asp Asn Ala Gly Lys Ala Ala Tyr
            340                 345                 350
Ser Asn Ala Phe Asp Lys Ala Val Tyr Asp Ser Asp Phe Ser Asp Ser
        355                 360                 365
Glu Asp Asp Ala Ser Glu Ile Glu Val Asp Glu Gln Gly Asn Thr His
    370                 375                 380
Val Arg Gly Arg Lys Gly Lys Lys Gly Lys Gln Asn Glu Gln Tyr Ile
385                 390                 395                 400
Arg Glu Met Ser Pro Glu Asp Asn Pro Leu Asp Leu Leu Ala Pro Asp
                405                 410                 415
Ala Leu Ala Ser Ile Ser Thr Thr Lys Pro Ser Val Arg Phe Leu Asn
            420                 425                 430
Thr Gly Pro Gly Ser Arg Lys Lys His Ala Ala Lys Phe Gly Pro Asp
        435                 440                 445
Gly Arg Leu Leu Ile Gly Asp Ala Glu Asn Asp Asp Ile Asp Met Ser
    450                 455                 460
Gly Ala Pro Gly Gly Asp Ala Asp Pro Gly Glu Ser Gly Ile Asn Ala
465                 470                 475                 480
Tyr Leu Ala Ala Val Ser Gly Pro Asp Ala Ile Arg Arg Gly Gln Lys
                485                 490                 495
Gly Arg Leu Lys Met Ser Gln Ala Gln Lys Lys Lys Asn Ser Gly Gly
            500                 505                 510
Asp Gly Met Asp Leu Asp Asp Asn Glu Asp Asp Asp Glu Ala Pro Ala
        515                 520                 525
Ser Ala Ser Asn His Gly Lys Gly Pro Gln Ser Thr Arg Arg Gly Leu
    530                 535                 540
Gly Val Pro Lys Thr His Gly Pro Ser Gly Asn Gly Arg Ile Gln Lys
545                 550                 555                 560
Arg Arg Asn Pro Pro Lys Gly Gly Arg Gln Ser Gly Arg Gly Gly Ile
                565                 570                 575
Arg Val Gly Lys Arg Arg
            580
```

<210> 31809
<211> 340
<212> PRT
<213> A.fumigatus

<400> 31809
Ala Val His Thr Met Ser Pro Leu Arg Pro Leu Leu Arg Ser Pro Gln

```
1               5                   10                  15
Thr Pro Gly Lys Arg Val Ala Gln His Ile Arg His Phe His Ala Thr
            20                  25                  30
Arg Pro Ser Pro Phe Ile Asn Glu Val Leu Asp Val Ser Ser Gly Phe
        35                  40                  45
Ile His Ala Val His Ser Ile Ser Gly Leu Pro Trp Ala Leu Ser Ile
    50                  55                  60
Pro Leu Thr Ala Leu Ile Val Arg Thr Thr Val Ala Met Pro Leu Gln
65                  70                  75                  80
Met Tyr Thr Lys Ile Gln Ala Arg Lys Glu Arg Asp Leu Ala Pro Leu
                85                  90                  95
Leu His Ser Trp Arg Lys His Phe Gln Ala Gln Ile Lys Lys Arg Val
            100                 105                 110
Asp Ala Glu Asn His Asn Pro Ile Leu Pro Arg Glu Ala Ile Arg Glu
        115                 120                 125
Leu Ala Thr Lys Val Lys Ala Lys Arg Lys Glu Leu His Lys Arg Trp
    130                 135                 140
Asn Val Pro Arg Phe Trp Lys Pro Val Ser Phe Leu Gln Ile Pro Ile
145                 150                 155                 160
Trp Ile Ser Val Met Glu Ser Leu Arg Ala Met Ser Gly Asn Asn Lys
                165                 170                 175
Gly Leu Val Pro Tyr Leu Leu Ser Leu Val Glu Pro Ser Ser Val Glu
            180                 185                 190
Pro Ser Thr Ala Val His Leu Ala Val Glu Pro Ser Leu Ala Thr Glu
        195                 200                 205
Gly Ala Leu Trp Phe Pro Asp Leu Leu Ala Gly Asp Ser Thr Gly Ile
    210                 215                 220
Leu Pro Ala Ala Leu Thr Leu Ser Ile Ile Leu Asn Ile Arg Thr Gly
225                 230                 235                 240
Trp Lys Ser Pro Ala Leu Ser Asp Met Ala Asp Leu Pro Arg Ile Glu
                245                 250                 255
Ile Ala Lys Asn Leu Thr Val Arg Gly Ile Arg Val Leu Ile Gln Ala
            260                 265                 270
Leu Ala Leu Asn Ile Gly Val Ser Ser Tyr Leu Tyr Glu Met Pro Ser
        275                 280                 285
Ala Leu Met Ile Tyr Trp Ile Ser Ser Thr Asn Ile Ala Thr Leu Gln
    290                 295                 300
Thr Phe Leu Leu Glu Arg Phe Met Leu Ser Lys Pro Leu Leu Glu Pro
305                 310                 315                 320
Trp Arg Gln Ile His Ile Gly Tyr Pro Gln Lys Gly Glu Lys Thr Pro
                325                 330                 335
Pro Ser Lys Lys
            340
```

<210> 31810
<211> 637
<212> PRT
<213> A.fumigatus

<400> 31810

```
Lys Gly Thr Ile Val Pro Ala Asp Gly Arg Ile Val Ser Ala Asn Leu
1               5                   10                  15
Ile Gln Val Asp Gln Ser Ser Ile Thr Gly Glu Ser Leu Ala Ile Asp
            20                  25                  30
Lys His Lys Gly Asp Thr Cys Tyr Ala Ser Ser Ala Val Lys Arg Gly
        35                  40                  45
```

```
Arg Ala Ile Ile Val Val Thr Ala Thr Gly Asp Tyr Thr Phe Val Gly
    50                  55                  60
Gln Ala Ala Ala Leu Val Asn Ala Ala Ser Ser Gly Ser Gly His Phe
65                  70                  75                  80
Thr Glu Val Leu Asn Gly Ile Gly Ala Val Leu Leu Val Leu Val Ile
                85                  90                  95
Ile Thr Leu Leu Val Val Trp Val Ser Ser Phe Tyr Arg Ser Asn Gly
            100                 105                 110
Ile Thr Thr Ile Leu Glu Phe Thr Leu Ala Ile Thr Ile Ile Gly Val
        115                 120                 125
Pro Val Gly Leu Pro Ala Val Val Thr Thr Thr Met Ala Val Gly Ala
    130                 135                 140
Ala Tyr Leu Ala Lys Lys Gln Ala Ile Val Gln Arg Leu Ser Ala Ile
145                 150                 155                 160
Glu Ser Leu Ala Gly Val Glu Ile Leu Cys Ser Asp Lys Thr Gly Thr
                165                 170                 175
Leu Thr Lys Asn Lys Leu Ser Leu Ser Glu Pro Tyr Thr Val Ala Gly
            180                 185                 190
Val Glu Pro Asp Asp Leu Met Leu Thr Ala Cys Leu Ala Ala Ser Arg
        195                 200                 205
Lys Lys Lys Gly Met Asp Ala Ile Asp Lys Ala Phe Phe Lys Ala Leu
    210                 215                 220
Arg His Tyr Pro Arg Ala Lys Ala Ala Leu Thr Lys Tyr Lys Val Leu
225                 230                 235                 240
Glu Phe His Pro Phe Asp Pro Val Ser Lys Lys Val Thr Ala Val Val
                245                 250                 255
Gln Ser Pro Gln Gly Arg Arg Met Thr Cys Val Lys Gly Ala Pro Leu
            260                 265                 270
Phe Val Leu Lys Thr Val Glu Glu Asp His Pro Ile Pro Glu Glu Ile
        275                 280                 285
Asp Thr Ala Tyr Lys Asn Lys Val Ala Glu Phe Ala Thr Arg Gly Phe
    290                 295                 300
Arg Ser Leu Gly Val Ala Arg Arg Arg Asp Gln Gly Ser Trp Glu Ile
305                 310                 315                 320
Leu Gly Ile Met Pro Cys Ser Asp Pro Pro Arg His Asp Thr Ala Lys
                325                 330                 335
Thr Ile Ser Glu Ala Lys Ser Leu Gly Leu Ser Ile Lys Met Leu Thr
            340                 345                 350
Gly Asp Ala Val Gly Ile Ala Arg Glu Thr Ser Arg Gln Leu Gly Leu
        355                 360                 365
Gly Thr Asn Val Tyr Asn Ala Glu Arg Leu Gly Leu Gly Gly Gly Gly
    370                 375                 380
Thr Met Pro Gly Ser Glu Val Tyr Asp Phe Val Glu Ala Ala Asp Gly
385                 390                 395                 400
Phe Ala Glu Val Phe Pro Gln His Lys Tyr Asn Val Val Glu Ile Leu
                405                 410                 415
Gln Gln Arg Gly Tyr Leu Val Ala Met Thr Gly Asp Gly Val Asn Asp
            420                 425                 430
Ala Pro Ser Leu Lys Arg Ala Asp Thr Gly Ile Ala Val Glu Gly Ser
        435                 440                 445
Ser Asp Ala Ala Arg Ser Ala Ala Asp Ile Val Phe Leu Ala Pro Gly
    450                 455                 460
Leu Ser Ala Ile Ile Asp Ala Leu Lys Thr Ser Arg Gln Ile Phe His
465                 470                 475                 480
Arg Met Tyr Ala Tyr Val Val Tyr Arg Ile Ala Leu Ser Leu His Leu
                485                 490                 495
```

```
Glu Val Phe Leu Gly Leu Trp Ile Ala Ile Leu Asn Glu Ser Leu Asn
            500                 505                 510
Leu Gln Leu Val Val Phe Ile Ala Ile Phe Ala Asp Ile Ala Thr Leu
        515                 520                 525
Ala Ile Ala Tyr Asp Asn Ala Pro Tyr Ser Lys Thr Pro Val Lys Trp
    530                 535                 540
Asn Leu Pro Lys Leu Trp Gly Met Ser Ile Leu Leu Gly Leu Val Leu
545                 550                 555                 560
Ala Ala Gly Thr Trp Val Ala Leu Thr Thr Ile Met Asn Ser Gly Glu
                565                 570                 575
Glu Gly Gly Ile Ile Gln Asn Phe Gly Glu Arg Asp Asp Val Leu Ser
            580                 585                 590
Leu Glu Ile Ser Leu Thr Glu Asn Trp Leu Ile Phe Ile Thr Arg Ala
        595                 600                 605
Asn Gly Pro Phe Trp Ser Ser Ile Pro Ser Trp Gln Leu Thr Gly Ala
    610                 615                 620
Ile Leu Val Val His Leu Val Ala Thr Ser Phe Cys Ile
625                 630                 635
```

<210> 31811
<211> 89
<212> PRT
<213> A.fumigatus

<400> 31811

```
Ala Gln Gly Ala Ala Phe Leu Ala Ala Gly Leu Arg Asp Trp Val Asp
1               5                   10                  15
Phe Gly Val Ile Cys Ala Leu Leu Leu Leu Asn Ala Ser Val Gly Phe
            20                  25                  30
Ile Gln Glu Phe Gln Ala Gly Ser Ile Val Asp Glu Leu Lys Lys Thr
        35                  40                  45
Leu Ala Leu Gln Ala Ile Val Cys Arg Glu Gly Glu Phe Asn Glu Ile
    50                  55                  60
Asp Ala Ser Glu Ile Val Pro Gly Asp Ile Val Arg Ile Glu Glu Val
65                  70                  75                  80
Thr Tyr His Gln Ser Ser Asn Phe Arg
                85
```

<210> 31812
<211> 303
<212> PRT
<213> A.fumigatus

<400> 31812

```
Ala Asp Asp Lys Pro Gly Arg Tyr Leu Asp Tyr Lys Asn Ile Thr Lys
1               5                   10                  15
Val Ile Gln Pro Gly Lys Leu Ile Tyr Val Asp Asp Gly Ile Leu Ser
            20                  25                  30
Phe Glu Val Leu Glu Ile Val Asp Asp Gln Thr Leu Arg Val Arg Cys
        35                  40                  45
Leu Asn Asn Gly Asn Ile Ser Ser Arg Lys Gly Val Asn Leu Pro Gly
    50                  55                  60
Thr Asp Val Asp Leu Pro Ala Leu Ser Glu Lys Asp Ile Asn Asp Leu
65                  70                  75                  80
Lys Phe Gly Val Lys Asn Arg Val Asp Met Ile Phe Ala Ser Phe Ile
                85                  90                  95
```

```
Arg Arg Gly Ser Asp Ile Arg His Ile Arg Glu Val Leu Gly Glu Glu
            100                 105                 110
Gly Lys Glu Ile Gln Ile Ile Ala Lys Ile Glu Asn Gln Gln Gly Val
        115                 120                 125
Asn Asn Phe Asp Glu Ile Leu Glu Glu Thr Asp Gly Val Met Phe Ala
    130                 135                 140
Arg Gly Asp Leu Gly Ile Glu Ile Pro Ala Pro Lys Val Phe Leu Ala
145                 150                 155                 160
Gln Lys Met Met Ile Ala Lys Cys Asn Met Lys Gly Lys Pro Val Ile
                165                 170                 175
Cys Ala Thr Gln Met Leu Glu Ser Met Thr Tyr Asn Pro Arg Pro Thr
            180                 185                 190
Cys Ala Glu Val Ser Asp Val Ala Asn Ala Val Leu Asp Gly Ala Asp
        195                 200                 205
Cys Val Met Leu Ser Gly Glu Thr Ala Lys Gly Asn Tyr Pro Thr Glu
    210                 215                 220
Ala Val Lys Met Met Ser Glu Thr Cys Leu Leu Ala Glu Val Ala Ile
225                 230                 235                 240
Pro His Phe Gln Val Phe Asp Glu Leu Arg Asn Leu Ala Pro Arg Pro
                245                 250                 255
Thr Asp Thr Val Glu Ser Ile Ala Met Ala Ala Val Ser Ala Ser Leu
            260                 265                 270
Glu Leu Asn Ala Gly Ala Ile Val Val Leu Thr Thr Arg Tyr Val Ile
        275                 280                 285
Ser Leu Ser Ser Ala Val Asp Arg Ile Pro Leu Thr Val Asp Pro
    290                 295                 300
```

<210> 31813
<211> 119
<212> PRT
<213> A.fumigatus

<400> 31813

```
Asn Cys Ser Ser Ser Phe Gln Val Ser Pro Cys Leu Pro Asn His His
1               5                   10                  15
Gly His Ser Gln Pro His Gly Arg Pro Gly Lys Phe Asp Leu Val Val
            20                  25                  30
Ile Val Gly Gln Met Ser Val Ala Asn Arg Ala Ile Lys Tyr Ser His
        35                  40                  45
Leu Tyr Arg Gly Val Trp Pro Ser Thr Phe Pro Asp Thr Lys Pro Asp
    50                  55                  60
Phe Asn Val Lys Ile Trp Pro Glu Asp Val Asp Arg Arg Leu Lys Trp
65                  70                  75                  80
Gly Ile Ser His Ala Leu Lys Leu Gly Leu Thr Asn Tyr Gly Asp Asn
                85                  90                  95
Ile Leu Cys Phe Pro Ser Leu Cys Arg Trp His Gly Asn Pro Tyr Thr
            100                 105                 110
Arg Ser Val Leu Val Pro Val
        115
```

<210> 31814
<211> 83
<212> PRT
<213> A.fumigatus

<400> 31814

```
Ser Asn Ser Phe Phe Ser Ser Phe Leu Ser Asn Pro Ser Glu Glu Ser
1               5                  10                  15
Phe Lys Met Ala Ala Ser Asn Ser Leu Asp His Leu Ser Asn Arg Met
            20                  25                  30
Lys Leu Glu Trp His Ala Lys Leu Asn Thr Glu Met Val Pro Ala Lys
        35                  40                  45
Asn Phe Arg Arg Thr Ser Ile Ile Cys Thr Ile Gly Met Ser Glu Leu
    50                  55                  60
Leu Asn Leu Ile Leu Glu Tyr Pro His Pro Tyr Glu Leu Phe Gly Leu
65                  70                  75                  80
Thr Arg Tyr
```

<210> 31815
<211> 258
<212> PRT
<213> A.fumigatus

<400> 31815

```
Gln Arg Tyr Tyr Ile Pro Ser Gly Gln Asp Asn Asn Gly Ser Ser Val
1               5                  10                  15
Glu Leu Lys Thr Gly Ala Asp Gly Ser His Gly Asp Arg Leu Asn Gly
            20                  25                  30
Val Ser Gly Ala Gly Ser Lys Val Thr Gln Phe Val Lys Asp Leu Glu
        35                  40                  45
Val Arg Asn Ser Asp Leu Cys Lys Gln Ala Gly Leu Arg His His Leu
    50                  55                  60
Asp Ser Leu Gly Gly Val Ile Ala Leu Gly Ser Leu Ser Gly Gln His
65                  70                  75                  80
Asp Thr Val Ser Ala Val Glu Asn Ser Val Gly Asn Val Arg Tyr Leu
                85                  90                  95
Arg Thr Gly Gly Ala Gly Val Val Cys His Gly Leu Glu His Leu Ser
            100                 105                 110
Gly Thr Asp Asp Gly Leu Ala Leu His Val Thr Leu Gly Asn His His
        115                 120                 125
Leu Leu Gly Gln Glu Asp Leu Gly Arg Arg Tyr Leu Asp Thr Gln Val
    130                 135                 140
Thr Thr Gly Glu His Asp Thr Val Ser Leu Leu Glu Asn Leu Ile Glu
145                 150                 155                 160
Val Val Asn Thr Leu Leu Val Leu Asp Leu Gly Asn Asn Leu Asn Leu
                165                 170                 175
Leu Ala Leu Leu Ala Lys Asp Phe Thr Asn Val Thr Asn Val Ala Ser
            180                 185                 190
Ala Thr Asp Lys Arg Gly Glu Asp His Val Asn Pro Ile Leu Asn Thr
        195                 200                 205
Glu Leu Glu Ile Val Asp Ile Leu Phe Arg Lys Ser Gly Lys Ile Asn
    210                 215                 220
Val Ser Ala Gly Gln Val Asp Thr Leu Ser Arg Arg Asp Val Ala Ile
225                 230                 235                 240
Val Gln Ala Pro Asp Thr Lys Gly Leu Ile Val Asn Asn Leu Glu His
                245                 250                 255
Leu Lys
```

<210> 31816
<211> 92

<212> PRT
<213> A.fumigatus

<400> 31816
Cys Pro Ser Pro Ser Pro Gln Pro Gln Pro Pro Ala Thr Ser Leu Thr
1 5 10 15
Gly Tyr Trp Leu Pro Pro Asp Ile Ala Ser Lys Thr Asp Leu Val Val
20 25 30
Gly Ser Gly Ala Ala Lys Ala Thr Lys Thr Asp Leu Leu Asp Pro Ser
35 40 45
Arg Val Leu Arg Thr Ser Val His Ser Pro Pro Ser Leu Thr Ser Thr
50 55 60
Gly Leu Pro Tyr Lys Val Leu Leu Cys Phe Leu Thr Thr Gly Ile Asn
65 70 75 80
Val Ala Glu Trp Leu Tyr Arg Leu Ser Pro Arg Tyr
85 90

<210> 31817
<211> 64
<212> PRT
<213> A.fumigatus

<400> 31817
Ser Ala Arg Leu Ala Gly Ile Asn Val Gly Ala Pro Ala Arg Pro Leu
1 5 10 15
Pro Ser Ala Asp Phe Gly Leu Ile Gly Leu Ala Val Met Gly Gln Asn
20 25 30
Leu Ile Leu Asn Val Ala Asp His Gly Phe Thr Val Cys Ala Tyr Asn
35 40 45
Arg Thr Thr Ser Lys Val Asp Arg Phe Leu Ala Asn Glu Gly Gln Gly
50 55 60

<210> 31818
<211> 66
<212> PRT
<213> A.fumigatus

<400> 31818
Ile Ile Thr Pro Ser Ile Lys Ile Lys Val Leu Leu Ala Val Ile Ala
1 5 10 15
Lys Ala Trp Leu Leu Cys Thr Phe Asn Thr Ile Ser Glu Gly Thr Phe
20 25 30
Val Gly Ile Leu Val Cys Thr Leu Tyr Ser Ala Phe Ser Thr Leu Asp
35 40 45
His Pro Pro Pro Gly Phe Cys Arg Ile Trp Ser Ser Thr Leu Val Ala
50 55 60
Val Ala
65

<210> 31819
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31819
Phe Asn Phe Leu Asn Thr Ser Gly Asp Asn Gly Arg Asn Asp Ala Leu

```
1               5                   10                  15
Phe Met Leu His Ala Leu Phe Gln Ile Ser Ala Lys Gln Gly Cys Tyr
            20                  25                  30
Lys Val Ser Phe Ile Val Arg Gly Ile Ser Lys Cys Arg His Ile Pro
        35                  40                  45
Val Gly Ala Arg Ser Ala Arg Ala Gly Thr Leu Ser Val
    50                  55                  60
```

<210> 31820
<211> 375
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3),(4),(5)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31820

```
Pro Tyr Xaa Xaa Xaa Ser Ala Arg Phe Ala Ser Leu Ala Thr Val Val
1               5                   10                  15
Glu Asp Asp Ser Pro Val Asn Gly Thr Thr Pro Val Pro Asp Ala Gly
            20                  25                  30
Ser Pro Ser Gly Ser Pro Gly Pro Ser His Ser Asp Glu Val Ala Trp
        35                  40                  45
Leu Thr Ser Glu Leu Arg Lys Glu Arg Gln Arg Val Leu Asp Lys Glu
    50                  55                  60
Gln Lys Ile Ala Glu Met Glu Ala Val Leu Asn Ala Thr Ala Asp Val
65                  70                  75                  80
Lys Gln Val Asn Thr Glu Leu Asn Glu Lys Arg Ser Thr Met Val Val
                85                  90                  95
Leu Asp Ala Lys Lys Glu Ile Val Met Arg Glu Leu Ser Val Leu Thr
            100                 105                 110
Asp His Leu Glu Ala Glu Lys Arg Gly Ala Ser Gly Pro Leu Asp Leu
        115                 120                 125
Gly Lys Ile Thr Asn Lys Val Leu Arg Asp Phe Val Glu Ser Leu His
    130                 135                 140
Lys Leu Lys Glu Ser Phe Thr Pro Gln Ile Glu Glu Leu Val Gln Lys
145                 150                 155                 160
Arg Asn Asp Ala Ala Glu Glu Leu Ala Asn Leu Asn Arg Met Lys Asp
                165                 170                 175
Lys Ser Phe Gln Glu Phe Glu Gln Leu Ser Ser Lys Asn Ala Gln Leu
            180                 185                 190
Ala Glu Leu Asn Asn Gln Leu Val His Gln Ile Gln Glu Leu Tyr Lys
        195                 200                 205
Ala Asn Ser Thr Glu Gly Asn Arg Gly Ala Asn Gly Leu Gly Ile Tyr
    210                 215                 220
Ser His Gly Lys Glu Lys Ser Leu Ser Ala Ile Asp Ala Leu Lys Ala
225                 230                 235                 240
Ala Asn Asn Asp Leu Ser Ala Ser Val Ser Ala Thr Asn Leu Ser Glu
                245                 250                 255
Glu Ala Glu Pro Ala Thr Val Val Pro Gly Pro Gln Val Val Ser Ile
            260                 265                 270
Arg Lys Gly Gln Pro Arg Lys Phe Asn Trp Lys Lys Gly Gly Gln Asn
        275                 280                 285
Val Ala Lys Gly Val Thr Lys Gly Ile Lys Gly Ala Phe Met Ser Ser
```

```
    290                 295                 300
Asp Ser Asn Ala Ala Gln Asp Ala Asn Pro Gly Leu Pro Arg Ser Gln
305                 310                 315                 320
Thr Gln Asp Pro Ser Arg Gln Gly Phe Gly Phe Phe Gly Asn Gln Lys
                325                 330                 335
Ser Lys Gln Ala Gly Thr Arg Met Pro Gln Thr Asp Ser Val Pro Ala
            340                 345                 350
Leu Ala Asp Leu Ala Pro Thr Gly Met Cys Arg His Phe Asp Met Pro
        355                 360                 365
Leu Thr Ile Lys Leu Thr Leu
    370                 375
```

<210> 31821
<211> 170
<212> PRT
<213> A.fumigatus

<400> 31821

```
Pro His Trp Ile Gly Met Asp Met Glu Gly Ile Tyr Arg Lys Ser Gly
1               5                   10                  15
Ala Ser Ser Ala Val Gln Ser Ile Arg Glu Gly Phe Glu Arg Phe Pro
            20                  25                  30
Gln Asp Tyr Asp Ile Ser Asp Pro Asp Leu Asp Ile His Ala Val Thr
        35                  40                  45
Ser Ala Leu Lys Gln Tyr Phe Arg Lys Leu Pro Thr Pro Leu Ile Thr
    50                  55                  60
Tyr Glu Val Tyr Glu Lys Ile Ile Asp Thr Gly Glu Ile Thr Ser Ala
65                  70                  75                  80
Glu Ala Arg Ile Ser Val Leu Gln Lys Ser Leu Ala Glu Leu Pro Arg
                85                  90                  95
Val His Gln Asp Val Leu Glu Phe Leu Val Phe His Leu Lys Arg Val
            100                 105                 110
Val Glu Arg Glu Lys Glu Asn Leu Met Thr Ser Gln Asn Ile Ala Val
        115                 120                 125
Val Phe Ala Pro Thr Ile Met Arg Pro Glu Ser Leu Ala Arg Glu Met
    130                 135                 140
Thr Asp Val Gln Lys Lys Asn Glu Val Leu Lys Phe Leu Val Asp Asn
145                 150                 155                 160
Cys Gln Glu Val Phe Met Gly Met Gln Ser
                165                 170
```

<210> 31822
<211> 70
<212> PRT
<213> A.fumigatus

<400> 31822

```
Tyr Ala Ser Asp Asn Lys Ala Asn Leu Ile Ala Ala Leu Phe Gly Thr
1               5                   10                  15
Asp Leu Glu Gln Arg Met Glu His Glu Lys Ser Ile Ile Pro Ala Ile
            20                  25                  30
Val Thr Arg Cys Ile Gln Glu Val Glu Leu Arg Gly Glu Ile Leu Gly
        35                  40                  45
Ala Cys Cys Ser Glu Val Thr Lys Leu Thr Thr Leu Asp Arg Asn Gly
    50                  55                  60
Tyr Gly Arg Asn Leu Ser
```

65 70

<210> 31823
<211> 637
<212> PRT
<213> A.fumigatus

<400> 31823
Lys Ala Ile Lys Trp Arg Asn Asn Leu Gln Pro Asp Ser Asn Thr Gln
1 5 10 15
Arg Thr Gly Arg Lys Ala Ser Thr Lys Thr Gln Val Gly Asp Ala Leu
20 25 30
Ser His Phe Leu Tyr Cys Trp Phe Gly Lys Ile Ile Thr Lys Ser Met
35 40 45
Lys Met Thr Asp Arg Pro Ser Ser Ala Gly Leu Glu Glu Pro Val Asn
50 55 60
Leu Val Ala Gln Asn Gly Gln Ala Val Asp Ser Val Pro Ser Arg Arg
65 70 75 80
Ser Ser Ser Arg Ser Thr Glu Ala Pro Glu Ala Ser Leu Pro Ala Pro
85 90 95
Thr Glu Ser Ala Asp Val Lys Gln Ala Val Ala Lys Pro Pro Ser Ala
100 105 110
Lys Leu Ser Leu Pro Asn Gly Glu Val Ala Asp Ala Gln Thr Ser Leu
115 120 125
Arg His Thr Phe Pro His Leu Tyr His Ser Ser Ser Ala Ser Arg Ser
130 135 140
Pro Trp Thr Gly Asn Ser Ser Ser Ser Ile Gln Ala Leu Asn Glu Asp
145 150 155 160
Thr Val Val Asp Ala Arg Ser Asp His Gly Leu Trp Thr Lys Ala Ser
165 170 175
Leu Gly Arg Arg Met Ser His Arg Ser Ala Thr Asp Ala Gln Pro Ala
180 185 190
Asp Tyr Pro Val Tyr Pro Asp Gln Ser Tyr Ala Val Leu Gln Ser Gln
195 200 205
Ile His Pro Thr Tyr His Pro Pro Phe Leu Arg Ser Arg Arg Ser Tyr
210 215 220
Pro Ala Arg Thr Glu Ser Leu Gly Arg Leu Val Thr Pro Arg Thr Ala
225 230 235 240
Arg Thr Ala Gly Asn Thr Pro Val Ser Ser Pro Gly Leu Phe Ser Val
245 250 255
Asn Ser Pro Asn Ser Thr Pro Pro Ala Asn Ser Asp Asn Glu Gly Arg
260 265 270
Ile Ser Ser Pro Tyr Leu His Pro Thr His Leu Gln Pro Pro Lys Glu
275 280 285
Thr His Thr Ala Glu Val Asp Arg Asp Leu Val Thr Gly Asn Lys Leu
290 295 300
Ile Asn Gln Tyr Glu Ile Leu Glu Glu Leu Gly Arg Gly Glu His Gly
305 310 315 320
Lys Val Lys Leu Gly Arg His Val Thr Thr Arg Gln Lys Val Ala Ile
325 330 335
Lys Ile Val Gln Arg Tyr Ser Lys Arg Arg Arg Leu Gly Lys Leu Gly
340 345 350
Asn Pro Glu Asp Lys Val Lys Lys Glu Val Ala Ile Leu Lys Lys Ala
355 360 365
Arg His Pro Asn Val Val Ser Leu Leu Glu Val Ile Asp Asp Pro Asn
370 375 380

```
Arg Gln Lys Val Tyr Ile Val Leu Glu Phe Val Glu Asn Gly Glu Ile
385                 390                 395                 400
Ile Trp Arg Lys Lys Gly Leu Arg Glu Ile Val Gln Val Asp Lys Arg
                405                 410                 415
Arg Leu Glu Arg Glu Lys Ala Gly Ile Pro Glu Thr Pro Ser Phe Trp
            420                 425                 430
Glu Glu Cys Arg Gln Tyr Val Lys Thr Ala Gln Arg Leu Arg Arg Gln
        435                 440                 445
Arg Glu Lys Ala Arg Glu Arg Arg Gln Met Lys Ala Val His Ala Gln
    450                 455                 460
Gln Ala Pro Ile Pro Ala Trp Ser Leu Glu His Gly Ala Glu Ser Asp
465                 470                 475                 480
Glu Glu Glu Glu Ala Asp Pro Ala Met Thr Arg Thr Ile Ser Arg Ser
                485                 490                 495
Ile Ala Ser His Asp Glu Thr Gln Glu Ser Pro Ser His Ser Leu Ala
            500                 505                 510
Ser Ala His Asp Ser Ala Leu Ala Ala Ile Glu Gly Thr Met Tyr Gly
        515                 520                 525
Pro Tyr Ala Asp Tyr Ser Leu Asp Arg Arg Phe Ser Thr Ala Ser Ser
    530                 535                 540
Ser Met Gly Tyr Ala Pro Ser Glu Pro Glu Trp Phe Ser Asp Asp Asp
545                 550                 555                 560
Asp Met Ser Tyr Val Pro Cys Leu Thr Val Asn Glu Ala Arg Asn Ala
                565                 570                 575
Phe Arg Asp Ser Leu Leu Gly Leu Glu Tyr Leu His Tyr Gln Gly Ile
            580                 585                 590
Ile His Arg Asp Ile Lys Pro Ala Asn Leu Leu Val Thr Ser Asn His
        595                 600                 605
Arg Val Lys Ile Ser Asp Phe Gly Val Ser Tyr Leu Gly Arg Pro Met
    610                 615                 620
Val Ser Pro Arg Gly Trp Lys Asp Pro Arg Trp Arg His
625                 630                 635

<210> 31824
<211> 195
<212> PRT
<213> A.fumigatus

<400> 31824
Leu Arg Ile Ala Arg Ile Leu Arg Pro Pro Trp Val Lys Thr Ser Leu
1                   5                  10                  15
Gln Trp Arg Glu His Gln Ile Asn Arg Phe Lys Pro Gly Lys Ser Ile
            20                  25                  30
Val Gly Ala His Ser Val Glu Glu Phe Cys Ala Lys Leu Lys Arg Pro
        35                  40                  45
Arg Arg Ile Met Leu Leu Val Met Ala Gly Lys Pro Val Asp Asp Phe
    50                  55                  60
Ile Glu Ser Leu Leu Pro His Leu Glu Glu Gly Asp Ile Ile Ile Asp
65                  70                  75                  80
Gly Gly Asn Ser His Phe Pro Asp Ser Asn Arg Arg Thr Lys Tyr Leu
                85                  90                  95
Lys Glu Lys Gly Ile Arg Phe Val Gly Ser Gly Val Ser Gly Gly Glu
            100                 105                 110
Glu Gly Ala Arg Tyr Gly Pro Ser Leu Met Pro Gly Gly Asn Glu Glu
        115                 120                 125
Ala Trp Pro Phe Ile Lys Asp Ile Phe Gln Ser Ile Ala Ala Asn Ser
```

```
    130                 135                 140
Asp Gly Glu Ala Cys Cys Asp Trp Val Gly Asp Glu Gly Ala Gly His
145                 150                 155                 160
Phe Val Lys Met Val His Asn Gly Ile Glu Tyr Gly Asp Met Gln Leu
                165                 170                 175
Ile Cys Glu Val Arg Arg Val Leu Ala Pro Ile Ile Cys Arg Asn Ser
            180                 185                 190
Pro Leu Thr
        195
```

<210> 31825
<211> 158
<212> PRT
<213> A.fumigatus

<400> 31825

```
Gln Gln Ala Tyr Asp Ile Met Lys Arg Gly Leu Gly Met Pro Val Asn
1               5                   10                  15
Glu Ile Ala Asp Val Phe Ala Lys Trp Asn Lys Gly Val Leu Asp Ser
            20                  25                  30
Phe Leu Ile Glu Ile Thr Arg Asp Val Leu Tyr Phe Asn Asp Asn Asp
        35                  40                  45
Gly Thr Pro Leu Val Glu Lys Ile Leu Asp Lys Ala Gly Gln Lys Gly
    50                  55                  60
Thr Gly Lys Trp Thr Ala Ile Asn Ala Leu Asp Leu Gly Met Pro Val
65                  70                  75                  80
Thr Leu Ile Gly Glu Ala Val Phe Ala Arg Cys Leu Ser Ala Ile Lys
                85                  90                  95
Asp Glu Arg Ile Arg Ala Ser Ser Leu Leu Asp Gly Pro Thr Pro Gln
            100                 105                 110
Phe Thr Gly Asp Lys Gln Ala Phe Ile Asp Asp Leu Glu Gln Ala Leu
        115                 120                 125
Tyr Ala Ser Lys Ile Ile Ser Tyr Ala Gln Gly Phe Met Leu Ile Gln
    130                 135                 140
Glu Val Arg Cys Cys Ser Ser His Ser Ala Ala Cys Asn Gly
145                 150                 155
```

<210> 31826
<211> 103
<212> PRT
<213> A.fumigatus

<400> 31826

```
Ala Ala Arg Glu Tyr Gly Trp Lys Leu Asn Lys Pro Ser Ile Ala Leu
1               5                   10                  15
Met Trp Arg Gly Gly Cys Ile Ile Arg Ser Val Phe Leu Lys Asp Ile
            20                  25                  30
Thr Asn Ala Tyr Arg Asn Asn Pro Asp Leu Glu Asn Leu Leu Phe Asp
        35                  40                  45
Asp Phe Phe Lys Ala Ala Ile Gln Lys Ala Gln Gln Gly Trp Arg Asn
    50                  55                  60
Val Val Ser Lys Gly Ala Leu Trp Gly Ile Pro Thr Pro Ala Phe Ser
65                  70                  75                  80
Thr Ala Leu Ser Phe Tyr Asp Gly Tyr Arg Thr Arg His Leu Pro Ala
                85                  90                  95
Asn Leu Leu Gln Ala Gln Ala
```

100

<210> 31827
<211> 151
<212> PRT
<213> A.fumigatus

<400> 31827
Ala Ala Ser Tyr Leu Leu Asp Glu His Glu Ala Leu Ser Val Gly Asp
1 5 10 15
Asp Leu Gly Gly Ile Gln Ser Leu Leu Glu Val Val Asp Glu Ser Leu
20 25 30
Leu Val Pro Gly Glu Leu Gly Ser Arg Ala Ile Glu Glu Ala Ala Gly
35 40 45
Thr Asp Thr Leu Val Leu Asp Gly Ala Gln Ala Thr Gly Glu Asp Gly
50 55 60
Leu Thr Asp Gln Gly Asn Gly His Ala Lys Val Glu Ser Val Asp Gly
65 70 75 80
Gly Pro Leu Ala Gly Thr Leu Leu Ala Arg Leu Val Lys Asp Leu Leu
85 90 95
Asp Glu Gly Ser Ala Ile Val Val Val Glu Val Glu Asn Val Thr Ser
100 105 110
Asp Leu Asn Gln Glu Arg Val Gln His Thr Leu Val Pro Leu Ser Glu
115 120 125
Asp Ile Gly Asp Leu Val Asp Gly His Ala Gln Thr Thr Leu His Asp
130 135 140
Val Ile Ser Leu Leu Ser Cys
145 150

<210> 31828
<211> 192
<212> PRT
<213> A.fumigatus

<400> 31828
Trp Ala Val Ala Ala Asp Tyr Arg Ser Lys Asn Ala Ser Tyr Leu Ala
1 5 10 15
Asp Gln Leu His Val Thr Val Leu Asp Thr Val Val Asp His Leu Asp
20 25 30
Glu Val Thr Ser Ala Phe Val Thr His Pro Val Thr Ala Ser Leu Ala
35 40 45
Val Ala Ile Gly Gly Asn Ala Leu Glu Asp Val Leu Asp Glu Gly Pro
50 55 60
Gly Leu Phe Val Ala Thr Gly His Gln Arg Gly Thr Val Ala Gly Thr
65 70 75 80
Leu Leu Thr Thr Gly Asn Thr Ala Ala Asp Glu Ala Asp Ala Leu Leu
85 90 95
Leu Gln Val Leu Gly Ala Ala Val Ala Val Gly Glu Val Gly Val Thr
100 105 110
Thr Ile Asp Asp Asp Val Thr Leu Leu Lys Val Gly Glu Glu Arg Leu
115 120 125
Asn Glu Val Val Asp Arg Leu Ala Ser His Asn Gln Gln His Asp Thr
130 135 140
Ala Arg Ala Leu Gln Leu Gly Ala Glu Phe Leu Asp Gly Val Ser Thr
145 150 155 160
Asp Asn Gly Leu Ala Trp Phe Lys Ser Val Asn Leu Val Phe Pro Pro

```
                165                 170                 175
Leu Gln Thr Cys Leu His Pro Arg Gly Ser Lys Asp Pro Arg Tyr Ala
            180                 185                 190

<210> 31829
<211> 252
<212> PRT
<213> A.fumigatus

<400> 31829
Asp Cys Ile Ser Ser His Gly Lys Trp Trp Ser Thr Glu Val Leu Thr
1               5                   10                  15
Cys His Ser Leu Ile Ser Arg Trp Trp Ser Pro Cys His Gln Val Leu
            20                  25                  30
Glu Asn Arg Arg Ser Gln Glu Arg Asn Leu Gln Arg Arg Tyr Arg Cys
        35                  40                  45
His Tyr Ser Tyr Gly Glu Ile Ile Ser Gln Ser Pro Leu Arg Thr Leu
    50                  55                  60
Gly Thr His Phe Arg Ile Pro Trp Ile Glu Thr Pro Ile Ile Tyr Asp
65                  70                  75                  80
Val Arg Ala Lys Pro Arg Asn Ile Ala Ser Leu Thr Gly Thr Lys Asp
                85                  90                  95
Leu Gln Met Val Asn Ile Thr Cys Arg Val Leu Ser Arg Pro Arg Val
            100                 105                 110
Asp Ala Leu Pro Gln Ile Tyr Arg Thr Leu Gly Thr Asp Phe Asp Glu
        115                 120                 125
Arg Val Leu Pro Ser Ile Val Asn Glu Val Leu Lys Ser Val Val Ala
    130                 135                 140
Gln Phe Asn Ala Ser Gln Leu Ile Thr Gln Arg Glu Asn Val Ala Arg
145                 150                 155                 160
Leu Val Arg Asp Asn Leu Ala Arg Arg Ala Ala Arg Phe Asn Ile Ala
                165                 170                 175
Leu Asp Asp Val Ser Leu Thr Val Arg Thr Leu Leu Thr Arg Ala Ser
            180                 185                 190
Pro Ile Val Ala Tyr Ile Thr Asn Leu Phe Asn Cys Gly Phe Val Ala
        195                 200                 205
Pro Asp Phe Leu Pro Arg Ile Tyr Arg Arg Cys Arg Ser Gln Ala Ser
    210                 215                 220
Ser Ser Ala Gly Gly Pro Ala Arg Cys Leu Pro Arg Arg Gln Gly Pro
225                 230                 235                 240
Pro Gly Glu Ala Gly Leu His Cys Pro Cys Pro Gly
                245                 250

<210> 31830
<211> 108
<212> PRT
<213> A.fumigatus

<400> 31830
His Leu Thr Phe Ser Pro Glu Phe Thr Ala Ala Val Glu Ala Lys Gln
1               5                   10                  15
Val Ala Gln Gln Glu Ala Gln Arg Ala Ala Phe Leu Val Asp Lys Ala
            20                  25                  30
Arg Gln Glu Lys Gln Ala Phe Ile Val Arg Ala Gln Gly Glu Ala Arg
        35                  40                  45
Ser Ala Glu Leu Ile Gly Asp Ala Ile Lys Asn Ser Lys Ser Tyr Ile
```

```
    50                  55                  60
Glu Leu Arg Arg Ile Glu Asn Ala Arg Gln Ile Ala Gln Ile Leu His
65                  70                  75                  80
Glu Ser Gly Gly Lys Asn Lys Leu Tyr Leu Asp Thr Gln Gly Leu Gly
                85                  90                  95
Leu Asn Val Asn Ala Ser Arg Gly Asp Glu Ser Lys
            100                 105
```

<210> 31831
<211> 297
<212> PRT
<213> A.fumigatus

<400> 31831

```
Tyr Val Arg Val His Ser Pro Leu Leu Ser Ser Leu Ala Asn Glu Phe
1               5                   10                  15
Ile Ser Asp Leu Thr Glu Glu Gln Val Lys Asp Ile Leu Ser Ser Ala
            20                  25                  30
Gly Thr Val Thr Lys Phe Arg Leu Met Met Asn Pro Glu Thr Gly Lys
        35                  40                  45
Pro Lys Gly Tyr Gly Phe Ala Asp Phe Ala Asp Ala Asp Ala Ala Ala
    50                  55                  60
Ser Ala Val Arg Asn Leu Asn Asp Phe Glu Ile Met Gly Arg Lys Ile
65                  70                  75                  80
Arg Val Asp Trp Pro His Asn Asn Glu Lys Asp Ser Val Pro Pro Asp
                85                  90                  95
Tyr Ser Gln Thr Ser Gln Met Pro Ser Gln Asp Val Gln Ala Gly Gln
            100                 105                 110
Gln Pro Ser Ala Pro Leu Pro Pro Leu Pro Pro Gly Val Glu Val Pro
        115                 120                 125
Pro His Leu Asp Cys Pro Asn Ala Ile Ser Gln Thr Leu Ser Ser Leu
    130                 135                 140
Pro Pro Asn Gln Leu Leu Asp Val Leu Ser Gln Met Lys Ser Leu Ala
145                 150                 155                 160
Met Thr Asp Pro Ala Arg Ala Thr Glu Leu Leu Arg Gln Ala Pro Gln
                165                 170                 175
Leu Ala Tyr Ala Ile Phe Gln Ala Leu Leu Leu Met Asn Leu Val Asp
            180                 185                 190
Tyr Ser Thr Leu Gly Ala Val Val Glu Gln Ala Thr Gln Pro Thr Ala
        195                 200                 205
Ala Ala Ala Pro Ser Ala Pro Pro Ala Ala Gln Ala Phe Gln Pro Phe
    210                 215                 220
Ser Ala Val Pro Gly Gln Ile Ser Thr Pro Pro Met Val Asn Thr Pro
225                 230                 235                 240
Phe Ala Pro Gln Pro Ala Ala Gln Ala Ala Pro Gln Gln Gln Val Pro
                245                 250                 255
Ser Gln Glu Glu Leu Leu Gln Gln Val Leu Ser Met Pro Gln Ser Ala
            260                 265                 270
Ile Asp Ala Leu Pro Pro Met Glu Arg Asn Gln Ile Met Leu Leu Arg
        275                 280                 285
Gln Gln Leu Met Gln Gly Ala Met Arg
    290                 295
```

<210> 31832
<211> 65
<212> PRT

<213> A.fumigatus

<400> 31832
Leu Thr Ile Gln Arg Leu Ala Lys Ile Cys Cys Ile Arg Lys Glu Ser
1 5 10 15
Lys Gly Asn Asn Thr Ile Ile Phe Thr Lys Leu Gln Glu Phe Asn Ser
20 25 30
Glu Met Arg Ala Ile Ala Ile Lys Tyr Lys Tyr Leu Phe Leu Pro Leu
35 40 45
Leu Tyr Ile Leu Ile Tyr Tyr Ile Asn Lys Ala Leu Lys Leu Leu Asn
50 55 60
Ser
65

<210> 31833
<211> 467
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (341),(346)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31833
Pro Val Met Lys Thr Arg Tyr Arg Thr Leu Lys His Val Ala Gln Tyr
1 5 10 15
Ser Pro Leu Leu Pro Glu Ser Val Lys Arg Thr Ile Ala Gln Thr Pro
20 25 30
Pro Gln Gln Ser Ile Lys Gln Arg Phe Thr Pro Asp Gln Leu Pro Leu
35 40 45
Ser Glu Leu Pro Met Leu Leu Asp Lys Arg Leu Thr Leu Asp Val Pro
50 55 60
Val Tyr Thr Val Trp Gly Ala Cys Glu Asp Val Arg Val Leu Glu Lys
65 70 75 80
Phe Arg Ser Gly Glu Tyr Lys Val Asn Asn Leu His Ile Ile Asp Glu
85 90 95
Ala Asn Ser Arg Leu Leu Asp Ile Gly Gly Val Lys Leu Arg Leu Leu
100 105 110
Gly Leu Gly Gly Ala Val Val Met His Lys Leu Phe Asp Asn Gly Glu
115 120 125
Gly Lys Thr Thr Ile Ala Gly Gly Gln Gly Thr Met Trp Thr Thr Leu
130 135 140
Leu Gln Met Gly Glu Leu Ile Asp Thr Ala Asn Arg Val Tyr Asp Pro
145 150 155 160
Ser Glu Thr Arg Ile Phe Val Thr His Ala Ser Pro Ala Arg Glu Gly
165 170 175
Met Leu Asn Gln Leu Ser Val Thr Leu Lys Ala Asp Phe Ser Ile Ser
180 185 190
Ala Gly Leu His Phe Arg Tyr Gly Ser Ser Tyr Asn Glu Phe Ser Val
195 200 205
Asn Pro Ser Leu Asp His Tyr Arg Gly Lys Leu Ala Ala Ser Lys Ala
210 215 220
Ser Phe Asn Asp Val Trp Glu Thr Val Arg Gly Glu Val Glu Ala Ala
225 230 235 240
Ile Ser Ser Asn Glu Ala Gln Lys Thr Leu Leu Asp Asn Ala Leu Asp

```
                245                 250                 255
Val Val Gln Arg Met Pro Thr Val Ala Asn Gly Gly Asn Pro Phe Gly
            260                 265                 270
Gly Pro Thr Ala Pro Gly Asn Ala Ala Gly Gln Val Asp Glu Ser Ala
        275                 280                 285
Phe Lys Asn Met Trp Asn Phe Asn Leu Ala Asp Ala Ala Phe Gly Phe
    290                 295                 300
Leu Val Leu Glu Ile Glu Gly Gly Arg Ile Ala Thr Glu Met Arg Ala
305                 310                 315                 320
Gln Gly Phe Asn Phe Ala His Arg Thr Gly Lys Pro Gln Val Ala Ala
                325                 330                 335
Gly Gln Thr Val Xaa Gly Gly Leu Pro Xaa Ser Pro Ala Thr Thr Ala
            340                 345                 350
Arg Val Pro Asn Ala Thr Pro Pro Gln Phe Gly Gln Ala Pro Pro Ala
        355                 360                 365
Pro Ala Arg Ala Ala Gly Thr Ala Gln Gln Gln Ile Gln Gly Lys Gly
    370                 375                 380
Pro Ala Ala Gly Ser Asn Ser Ala Ser Pro Val Pro Val Ile Pro Asn
385                 390                 395                 400
Pro Ala Thr Pro His Ala Leu Cys Trp Ala Pro His Leu Asn Pro Met
                405                 410                 415
Leu Leu Pro Arg Lys Lys Ala Gly Thr Ser Asn Pro Thr Glu Leu Ala
            420                 425                 430
Asn Gln Lys Asn Pro Arg Asn Pro Leu Cys Pro Gln Gly Lys Lys Asn
        435                 440                 445
Pro Thr Thr Glu Trp Phe Leu Ser Lys Phe Asn Lys Gln Thr Gly Gly
    450                 455                 460
Ser Gly Ile
465
```

<210> 31834
<211> 106
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (32)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31834

```
Pro Gly Leu Gly Pro Gly Leu Ile Val Ser Arg Trp Cys Arg Glu Thr
1               5                   10                  15
Ser Ser Lys Gly Met Thr Tyr Gln Lys Arg Asp Ile Lys Asp Pro Xaa
            20                  25                  30
Leu Ser Ala Ser Tyr Val Ala His Thr Lys Lys Lys Ile Gly Thr Thr
        35                  40                  45
Ala Ala Lys Asp Leu Asn Arg Phe Glu Thr Glu Cys Cys Asn Ala Val
    50                  55                  60
Ala Pro Pro Gly Ser Gln Val Thr Leu Ser Gly Lys Arg Lys Asp Leu
65                  70                  75                  80
Ser Lys Pro Leu Tyr Arg Cys Asn Asn Trp Leu Asp Asp Val Ile Ser
                85                  90                  95
Leu Ala Phe Gln Lys Gly Ile Phe Glu Pro
            100                 105
```

<210> 31835
<211> 70
<212> PRT
<213> A.fumigatus

<400> 31835
Val Glu Val Leu Lys Ser Lys Leu Asn His Met Ile Lys Glu Ala Thr
1 5 10 15
Thr Ser Gln Asp Tyr Glu Phe Gly Pro Asn Leu Ser Lys Lys Pro Gly
20 25 30
Thr Thr Ser Lys Ile Gly Met Asn Asn Met Phe Asn Ser Thr Lys Val
35 40 45
Phe Pro Leu Pro Arg Val Pro Ile Tyr Tyr Thr Leu Ala Ala Arg Ile
50 55 60
Leu Val His Pro Thr Ala
65 70

<210> 31836
<211> 439
<212> PRT
<213> A.fumigatus

<400> 31836
Ala Asp Ile Pro Gln Asn Leu Val Trp Ser Gly Trp Gly Asn Ser Gly
1 5 10 15
Pro Gly Asn Ala His Gly Met His Val Cys Lys Tyr Lys Gly Ala Asn
20 25 30
His Leu Cys Phe Phe Gln Gly Ile Gln Gln Asn Gly Tyr Cys Arg Gly
35 40 45
His Gly Val Ile Met Asp Asn Arg Tyr Arg Ile Val Lys Thr Val Thr
50 55 60
Pro Gly Gly Gly Ile Ala Ser Ser Asp Met His Glu Phe Arg Leu Val
65 70 75 80
Asn Asp Gly Lys Thr Ala Leu Met Thr Val Tyr Gln Gln Arg Gln Phe
85 90 95
Asp Met Ser Leu Trp Asn Leu Arg Met Gly Met Gly Trp Leu Met Glu
100 105 110
Ser Ile Phe Gln Glu Ile Asp Val Glu Thr Asn Gln Val Leu Phe Glu
115 120 125
Trp Arg Ser Leu Asp His Val Asp Pro Ser Val Ser Tyr Thr Tyr Pro
130 135 140
Ser Ser Thr Asp Thr Ser Gly Thr Gly Phe Glu Pro Arg Ser Pro Trp
145 150 155 160
Asp Tyr Phe His Ile Asn Ser Val Asp Lys Asn Lys Asp Gly Asp Tyr
165 170 175
Leu Ile Ser Ser Arg His Thr Ser Cys Ile Tyr Lys Ile Ser Gly Lys
180 185 190
Asp Gly Ser Ile Leu Trp Arg Leu His Gly Ala Asn Pro Ser Phe Lys
195 200 205
Asn Ile Asn Phe Ser Phe Ser Gln Gln His Asp Ala Arg Trp Leu Gly
210 215 220
Glu Asn Ala Thr His Thr Leu Leu Ser Leu Tyr Asn Asn Gly Tyr Asn
225 230 235 240
Gly Tyr Asn Gln Thr His Pro Tyr Ser Ser Gly Met Ile Ile Leu Ile
245 250 255
Asp His Val Asn Asn Thr Ala Thr Gln Ile Arg Glu Tyr Lys Pro Leu

```
            260                 265                 270
Asn Asp Asp Met Leu Ser Ser Ser Gln Gly Asn Met Gln Val Leu Pro
        275                 280                 285
Asn Arg Asn Val Phe Ile Gly Trp Gly Asn Asn Ala Tyr Ile Ser Glu
    290                 295                 300
His Asp Glu Gln Gly Lys Leu Val Phe Trp Gly Tyr Ile Asp Lys Asp
305                 310                 315                 320
Lys Ile Met Asn Tyr Arg Ala Leu Lys Phe Glu Trp Glu Gly Asn Pro
                325                 330                 335
Thr Asp Val Pro Ala Leu Trp Thr Tyr Ala Lys Thr Asn Asp Gly Phe
            340                 345                 350
Ser Pro Thr Thr Phe Tyr Val Ser Trp Asn Gly Ala Thr Arg Val Lys
        355                 360                 365
His Trp Arg Phe Tyr Gly Ala Ala Asn Ser Thr Gly Pro Tyr Glu Leu
    370                 375                 380
Leu Ser Gln Val Ala Lys Gln Gly Ile Gln Thr Thr Tyr Thr Asn Ala
385                 390                 395                 400
Thr Phe Tyr Pro Trp Ser Tyr Val Glu Ala Val Asp Gly Gln Gly Thr
                405                 410                 415
Val Leu Gly Lys Ser Arg Asn Gln Phe Thr Phe Thr Pro Ser Pro Glu
            420                 425                 430
Leu Pro Arg Leu Leu Arg Glu
        435
```

<210> 31837
<211> 74
<212> PRT
<213> A.fumigatus

<400> 31837

```
Leu Leu Phe Val Leu Ser Ile Pro Ser Ser Ser Leu Pro Ser Leu Leu
1               5                   10                  15
Phe Ser Ser Ser Ala His Ser Pro Pro Phe Leu Phe Phe Leu Tyr Ile
            20                  25                  30
Thr Leu Phe Phe Phe Ser Tyr Phe Ala Thr Phe Leu Leu Leu Pro Leu
        35                  40                  45
Val Ser Leu Leu Leu Pro Leu Pro Phe Tyr Phe Cys Phe Val Leu Thr
    50                  55                  60
Asn Leu Leu Ser Lys Ile Ser Phe Ser Pro
65                  70
```

<210> 31838
<211> 207
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (207)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31838

```
Val Ile Pro Pro Arg Ile Ser Tyr Leu Val Leu Ala Asn Leu Phe Cys
1               5                   10                  15
Ala Thr Gly Ile Val Gly Ser Asp Pro Tyr Leu Ala Pro Glu Val Tyr
            20                  25                  30
```

```
Asp Glu Lys Lys Tyr Asp Pro Arg Pro Thr Asp Ile Trp Ser Leu Ala
        35                  40                  45
Ile Ile Phe Cys Cys Met Thr Leu Arg Arg Phe Pro Trp Lys Gln Pro
    50                  55                  60
Arg Val Ser Asp Asn Ser Tyr Arg Ile Phe Val Ser Thr Pro Thr Pro
65                  70                  75                  80
Gly Thr Pro Val Pro Asp Ala Asp Pro Lys Arg His Arg Ala Ile Lys
                85                  90                  95
Ser Ala Pro Asp Val Ser Ser Phe Asp Asn Glu Gly Lys Pro Ala Gln
            100                 105                 110
Pro Ala Glu Glu Lys Asn Gly Leu Ser Glu Pro Ser Ala Gln Ser Asp
        115                 120                 125
Ser Glu Lys Lys Gln Ala Pro Thr Thr Ser Thr Thr Ser Asp Glu Asn
    130                 135                 140
Arg Pro Pro Glu Ser Pro Lys Asp Lys Val Ser Gly Asn Leu Ser Lys
145                 150                 155                 160
Pro Thr Arg Thr Thr Ser Lys Glu Ala Pro Pro Leu Pro Ala Ser Ala
                165                 170                 175
Gln Ser Ser Ser Gln Arg Gln Glu Val Ile Lys Gly His Trp Arg Leu
            180                 185                 190
Leu Arg Ile Arg Pro Arg Glu Val Phe Thr Thr Gly Arg Arg Xaa
        195                 200                 205

<210> 31839
<211> 316
<212> PRT
<213> A.fumigatus

<400> 31839
His Leu Trp Gly Glu Pro Asn Asp Pro Tyr Ala Arg Ser Lys Arg Pro
1               5                   10                  15
Pro Gln Ala Lys Asn Leu Ala Gln Ile Asp Gln Arg Phe Ile Phe Gly
            20                  25                  30
Gly Arg Asp Ser Lys Arg Arg Asn His Thr Thr Pro Thr Phe Gly Arg
        35                  40                  45
Pro Gly Thr Pro Arg Ser Ser Ser Ala Gly Asp Leu Lys Ser Ser Asp
    50                  55                  60
Lys Arg Gly Gly Ile Phe Gly Ser Lys Lys Asp Leu Arg Gln Ser Asp
65                  70                  75                  80
Ser Gly Glu Asn Lys His His His Gly His Met Ala Glu Leu Lys Arg
                85                  90                  95
Phe Phe Lys Met Gly His His Lys His Lys Arg Gly Asp Ser Pro Ser
            100                 105                 110
Ser Leu Pro Lys Arg Ser Ser Arg Ser Ser Gly Lys Ser Thr Gln Ser
        115                 120                 125
Glu Thr Val Pro Phe Ala Asp Asp His Gly Leu Asn Thr Lys Tyr Gly
    130                 135                 140
Lys Leu Gly Lys Val Leu Gly Ser Gly Ala Gly Gly Ser Val Arg Leu
145                 150                 155                 160
Leu Lys Arg Asn Ser Asp Gly Val Thr Phe Ala Val Lys Gln Phe Arg
                165                 170                 175
Asp Arg His Ser Trp Glu Thr Met Lys Glu Tyr Ser Lys Lys Val Thr
            180                 185                 190
Ala Glu Phe Cys Ile Gly Ser Thr Leu His His Gly Asn Ile Ile Glu
        195                 200                 205
Thr Leu Asp Ile Ile Gln Glu Gly Asp His Trp Tyr Glu Val Met Glu
```

```
    210                 215                 220
Tyr Ala Pro Tyr Asp Leu Phe Ala Ile Val Met Thr Gly Lys Met Ser
225                 230                 235                 240
Lys Asp Glu Ile Ala Cys Ser Phe Lys Gln Ile Leu Ser Gly Val Ala
                245                 250                 255
Tyr Leu His Gly Met Gly Leu Ala His Arg Asp Leu Lys Leu Asp Asn
            260                 265                 270
Val Val Val Asn Glu His Gly Ile Met Lys Leu Ile Asp Phe Gly Ser
        275                 280                 285
Ala Val Val Phe Arg Tyr Pro Phe Glu Asn Asp Ile Val Pro Ala Ser
    290                 295                 300
Gly Glu Leu Phe His Arg Gly Ser Arg Thr Trp Ser
305                 310                 315
```

<210> 31840
<211> 71
<212> PRT
<213> A.fumigatus

<400> 31840

```
Cys Ile Cys Arg Arg Pro Val Ser Asp Gly Ser Ser Gly Arg Arg Asp
1               5                   10                  15
Asp His Leu Asn Ala Tyr Gly Gln Tyr Gly Leu Gln Leu Lys Gln Trp
            20                  25                  30
Gly Glu His Cys Pro Ser Pro Gly Thr Ser Gly Ala Phe Asp Ala Tyr
        35                  40                  45
Leu Cys Pro Glu Pro Gln Leu Pro Ala Ser Gly Ser Ala Cys Lys His
    50                  55                  60
Ala Asn Asn Ala Ser Thr Glu
65                  70
```

<210> 31841
<211> 321
<212> PRT
<213> A.fumigatus

<400> 31841

```
Cys Asn Leu Gly Arg Ala Phe Thr Asn Ser Ile Ser Gly Glu Ser Ser
1               5                   10                  15
His Thr Arg Ser Thr Tyr Pro Ser Ile Ala Ile Ile Leu Glu Arg Lys
            20                  25                  30
Thr Ala Glu Glu Ile His Ser Ser Leu Pro Phe Pro Val Tyr Ser Thr
        35                  40                  45
Phe Pro Asp Asn Asp Pro Ser Ala Leu His Asp Lys Val Asp Met Thr
    50                  55                  60
Val Thr Leu Gly Gly Asp Gly Thr Ile Leu Arg Ala Ser Ser Leu Phe
65                  70                  75                  80
Ala Thr Cys Val Asp Val Pro Pro Met Leu Ser Phe Ser Met Gly Thr
                85                  90                  95
Leu Gly Phe Leu Ser Glu Trp Lys Phe Ala Glu Tyr Lys Arg Ala Phe
            100                 105                 110
Arg Glu Val Phe Met Ser Gly Ala Gly Ala Gly Asp Arg Ala Pro Ile
        115                 120                 125
Leu Glu Asp Gln Met Glu Asp Gly Thr Gly Pro Thr Gly Trp Ser Ser
    130                 135                 140
Val Arg Gly Lys Ser Met Gly Ser Ser Arg Gly Ala Arg Ile Leu Met
```

```
145                 150                 155                 160
Arg Asn Arg Leu Lys Val Gly Leu Phe Thr Ala Asp Gly Lys Pro Ile
                165                 170                 175
Gln Val Arg Gly Asn Ile Pro Ala Ala Gln Asp Gln Leu Gly Thr Gln
            180                 185                 190
Gly Val Tyr Val Met Asn Glu Val Leu Leu His Arg Gly Lys Glu Pro
        195                 200                 205
His Leu Ala Val Val Asp Val Tyr Val Gly Gly Arg Phe Leu Thr Glu
    210                 215                 220
Ala Val Ala Asp Gly Met Ile Ile Ser Thr Pro Thr Gly Ser Thr Ala
225                 230                 235                 240
Tyr Ser Leu Ser Ser Gly Gly Ser Ile Val His Pro Leu Val Pro Ala
                245                 250                 255
Val Leu Leu Thr Pro Ile Cys Ala Arg Ser Leu Ser Phe Arg Pro Leu
            260                 265                 270
Val Leu Pro Ala Ser Thr Pro Ile Thr Leu Arg Leu Ser Glu Lys Asn
        275                 280                 285
Arg Gly Arg Glu Leu Glu Val Ser Ile Asp Gly Val Asn Leu Gly Gln
    290                 295                 300
Gly Met Thr Val Gly Thr Glu Ala Arg Val Trp Asn Glu Glu Met Arg
305                 310                 315                 320
Ser
```

<210> 31842
<211> 286
<212> PRT
<213> A.fumigatus

<400> 31842

```
Val Val Ala Arg Leu Arg Pro Ala Arg Cys Gly Glu Arg Arg Lys Cys
1               5                   10                  15
Arg Gly Ser Asn Leu Pro Cys Ser Arg Phe Phe Val Asn Leu His Thr
            20                  25                  30
Gly Lys Ser Gln Trp Glu Arg Pro Glu Gly Pro Ala Gln Lys Glu Glu
        35                  40                  45
Gln His Ala Pro Pro Ser Gly Pro Pro Pro Ser Tyr Asp Asp Ser Gly
    50                  55                  60
Pro Ala Asn Pro Ser Val Gln Ala Ala Ala Thr Asp Asp Lys Lys Thr
65                  70                  75                  80
Leu Gly Ser Asn Asn Pro Tyr Asn Gln Ala Asp Pro Ser Asn Asp Thr
                85                  90                  95
Leu Glu Ser Asp Ala Arg Leu Ala Ala Gln Leu Gln Ala Glu Glu Asp
            100                 105                 110
Ala Arg Ala Gln Ser Arg Ser Pro Val His Pro Gly Ala Ala Ala Asp
        115                 120                 125
Tyr Tyr Ser Gly Ser Ser Arg Pro Leu Ser Ser Ala Gly Tyr Gln Pro
    130                 135                 140
Ser Gln Gly Pro Ala Pro Ala Pro Glu Pro Lys Arg Ser Arg Gly Phe
145                 150                 155                 160
Leu Ser Lys Leu Met Gly Lys Ser Ser Ser Ser Ser Gly Ser Pro His
                165                 170                 175
Phe Gly Arg Pro Pro Ile Ala Gln Gln Gln Ser Tyr Gly Tyr Gln Gln
            180                 185                 190
Gly Gly Tyr Tyr Gly Gly Gly Tyr Pro Pro Gln Pro His Pro Ala Gly
        195                 200                 205
```

```
Tyr Gly Tyr Pro Gln Tyr Gln Pro Gln Gly Gly His Tyr Pro Gly Ala
    210                 215                 220
Val Pro Pro Arg Arg Gly Gly Gly Met Gly Thr Ala Gly Ala Ala Ala
225                 230                 235                 240
Leu Gly Val Gly Gly Gly Leu Leu Gly Gly Ala Leu Leu Ala Glu Ala
                245                 250                 255
Phe Asp Asp Asp His Gly Asp Thr Ile Ile Asn Asn Tyr Gly Asp Asn
            260                 265                 270
Tyr Ser Gly Asp Phe Gly Gly Gly Asp Asp Phe Gly Asp Phe
        275                 280                 285
```

<210> 31843
<211> 157
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (8)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31843

```
Pro Asn Arg Asn Thr Phe Pro Xaa Gly Thr His Ala Thr Leu Thr Ser
1               5                   10                  15
Leu Pro Ser Leu Lys Asp Arg Glu Asp Ala Ser Ser His Val Leu His
            20                  25                  30
Pro Leu Thr Ala Pro Leu Thr Arg Ser Val Ser Phe Val Phe Arg Asn
        35                  40                  45
Leu Lys Ala Thr Lys Pro Glu Ser Tyr Leu Leu Glu Ile Arg Ser Ala
    50                  55                  60
Glu Tyr Val Phe Ala Pro Tyr Arg Val Asp Val Ser Ala Asp Gly Thr
65                  70                  75                  80
Val Leu Gly Val Trp Glu Thr Tyr Arg Gly Asn Pro Trp Asp Asn Arg
                85                  90                  95
Gly Arg Glu Lys Phe Val Val Asp Ala Ala Gly Gly Asn Gly Ala Lys
            100                 105                 110
Ala Ala Glu Val Met Val Glu Ala Lys Ile Leu Ala Arg Arg Gly Phe
        115                 120                 125
Tyr Glu Glu Arg Ala Arg Cys Glu Met Asp Arg Ile Gln Pro Pro Arg
    130                 135                 140
Ser Arg Gly Gly Glu Cys Phe Thr Leu Ala Arg Phe Lys
145                 150                 155
```

<210> 31844
<211> 82
<212> PRT
<213> A.fumigatus

<400> 31844

```
Trp Trp Lys Leu Arg Phe Trp Leu Glu Glu Asp Ser Met Lys Asn Glu
1               5                   10                  15
Leu Asp Val Arg Trp Thr Glu Ser Asn Pro Arg Ala Pro Val Val Glu
            20                  25                  30
Asn Ala Leu Pro Leu Arg Ala Ser Asn Asp Met Ser Thr Asp Lys Met
        35                  40                  45
Arg Arg Ala Ser Leu Ser Ser Phe Ala Leu Gln Lys Pro Tyr Asp Leu
```

```
    50                  55                  60
Val Gly Val Gly Ser Pro Gly Leu His Leu Trp Asp Ala Glu Thr Tyr
65                  70                  75                  80
Gly Glu
```

<210> 31845
<211> 95
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (4)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31845

```
Val Val Leu Xaa Leu Leu Ile His Ala Tyr Thr Arg Leu Pro Cys Val
1               5                   10                  15
Leu Thr Tyr Leu Ser Val Asp Pro Glu Met Arg Ala Glu Phe Glu Lys
            20                  25                  30
Gln Ser Arg Thr Ser Pro Ile Ser Gly Ala Thr Arg Asn Ala Met Ala
        35                  40                  45
Gly Gly Gly Gly Pro Gly Asn Phe Asp Leu Ala Gly Trp Met Ala Gly
    50                  55                  60
Ala Thr Pro Arg Gln Ala Thr Gly Thr Asp Ser Glu Ala Ala Arg Gly
65                  70                  75                  80
Thr Ala Thr Gly Arg Glu Thr Gly Gly Thr Thr Arg Arg Arg Gly
                85                  90                  95
```

<210> 31846
<211> 94
<212> PRT
<213> A.fumigatus

<400> 31846

```
Tyr Arg Ser Leu Phe Arg Thr Asn Ile Leu Asn Asn Tyr Asn Leu Phe
1               5                   10                  15
Ile Val Ser Leu Asp Asn Tyr Ile Arg Ser Leu Thr Val Phe Tyr Tyr
            20                  25                  30
Ser Asn Asn Leu Arg Tyr Tyr Ile Glu Pro Tyr Tyr Lys Ala Ser Phe
        35                  40                  45
Ile Lys Ile Leu Asp Ile Ile Phe Ile Tyr Thr Met Phe Leu Asp Ser
    50                  55                  60
Phe Ile Tyr Cys Tyr Lys Leu Leu Phe Asn Asn Leu Arg Ile Leu Leu
65                  70                  75                  80
Phe Tyr Pro Leu Val Tyr Asn Ser Leu Ile Ile Ser Tyr Ile
                85                  90
```

<210> 31847
<211> 84
<212> PRT
<213> A.fumigatus

<400> 31847

```
Glu Leu Val Asn Leu Leu Asp Pro Lys Arg Val Leu Trp Ile Asp Leu
```

```
1               5                   10                  15
Val Gly Arg Ser Ile Phe Pro Val Arg Trp Ile Pro Thr Ser Ser Leu
            20                  25                  30
Pro Ile Asn Asn Thr Asn Asn Ile Val Ser Thr Asn Lys Asn Val Glu
        35                  40                  45
Thr Thr Lys Val Thr Met Arg Lys Tyr Gln Arg Pro Ser Leu Ala Leu
    50                  55                  60
Leu Phe Asp Lys Val Leu Asn Phe Arg Val Lys Ser Gln Ile Lys Phe
65                  70                  75                  80
His Ala Pro Thr
```

<210> 31848
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31848

```
Pro Pro Asn Asn Thr Lys Glu Thr Leu Lys Lys Phe Arg Tyr Ile Arg
1               5                   10                  15
Asp Phe Pro Ala Leu Gln Arg Leu Gly Met Val Cys Ala Leu Tyr Leu
            20                  25                  30
Tyr Arg Pro Leu Tyr Ile Val Thr Ala Val Gly Gly Asn Thr Ala Leu
        35                  40                  45
Arg Ile Ile Tyr Val Tyr Ala Thr Met Ala Leu Gln Ser
    50                  55                  60
```

<210> 31849
<211> 250
<212> PRT
<213> A.fumigatus

<400> 31849

```
Pro Pro Tyr Val Pro Gly Trp Thr Val Val Tyr Asn Leu Pro Phe Thr
1               5                   10                  15
Thr Leu His Arg Arg Val Cys His Ser Ile Pro Val Ile Thr Lys Cys
            20                  25                  30
Leu His Pro Thr Thr Ile Ala Ala Ile Tyr Asn Glu Arg Ser Thr Thr
        35                  40                  45
Tyr Asp Ala Ala Ile Phe His His Arg Leu Ala Glu Glu Tyr Ile Arg
    50                  55                  60
Ala Ala Ala Pro Gln Pro Gly Ala Gln Val Leu Asp Leu Ala Cys Gly
65                  70                  75                  80
Thr Gly Leu Val Thr Phe Leu Ala Glu Ala Gln Val Gly Pro Thr Gly
                85                  90                  95
Thr Val Val Gly Val Asp Ile Ser Glu Gly Met Leu Glu Val Ala Arg
            100                 105                 110
Gly Lys Ala Gln Arg Thr Gly Ser Arg Val Thr Phe Tyr Gln His Asp
        115                 120                 125
Ile Ser Asn Leu Ser Asp Leu Asp Leu Asn Pro Asn Pro Gly Gly Gln
    130                 135                 140
Asp Asp Gly Ala Gly Gln Phe Asp Leu Ile Thr Cys Ala Ala Ala Leu
145                 150                 155                 160
Val Leu Leu Pro Asp Pro Leu Gly Ala Ile Arg Ser Trp Ala Glu Leu
                165                 170                 175
Leu Arg Asn Gly Gly Lys Leu Val Thr Asp Val Ala Ala Arg Asp Val
```

```
            180                 185                 190
His Val Pro Ala Arg Ile Phe Glu Trp Ile Gly Pro Gln Leu Gly Leu
        195                 200                 205
Ser Leu Gln Trp Asp Gln Ser Trp Val Lys Gly Glu Glu Ser Leu Ala
    210                 215                 220
Gly Leu Leu Thr Glu Gly Arg Leu Glu Val Glu Lys Gly Ile Val Thr
225                 230                 235                 240
Pro Val Phe Gln Val Lys Glu Tyr Arg Val
                245                 250
```

<210> 31850
<211> 145
<212> PRT
<213> A.fumigatus

<400> 31850

```
Arg Pro Asn Ala Pro Ala Gly Ser Pro Ala Ala Gly Ala Glu Pro Thr
1               5                   10                  15
Ala Pro Leu Leu Pro Ala Ala Ala Ala Ala Asp Cys His Trp Pro Arg
            20                  25                  30
Arg Arg Ser Arg His Asp Gln Pro Ala Ser Trp His Pro Ile Arg Glu
        35                  40                  45
Pro Arg Ser Pro Phe His Ser Pro Leu Arg Thr Val Cys Ala Asp Ala
    50                  55                  60
Ser Arg Pro Asp Gln Ser Pro Ala Ser Ala Pro Ala Leu Pro Gln Pro
65                  70                  75                  80
Arg Pro Cys Ala Gly Trp Ala Asp Pro Lys Ala Pro Asn Pro Cys Gly
                85                  90                  95
Phe Gly Arg Arg Pro Pro Thr Ser Arg Arg Pro Ala Ser Pro Ala Leu
            100                 105                 110
Pro Ser Gly Pro Thr Thr Asn Pro Ala Arg Ser His Pro Val Pro Pro
        115                 120                 125
Ala Gly Leu Ala Cys Pro Pro Ala Ala Arg Ser Ser Leu Gly Leu Ile
    130                 135                 140
Gly
145
```

<210> 31851
<211> 102
<212> PRT
<213> A.fumigatus

<400> 31851

```
His Pro Arg His Asn Gln Met Pro Pro Ser His His His Arg Ser His
1               5                   10                  15
Leu Gln Arg Thr Glu His His Leu Arg Cys Arg His Leu Pro Pro Pro
            20                  25                  30
Pro Arg Arg Gly Val His Pro Arg Arg Ser Pro Pro Ala Trp Arg Ser
        35                  40                  45
Gly Pro Arg Ser Arg Leu Arg His Gly Pro Ser His Leu Pro Arg Arg
    50                  55                  60
Ser Ala Gly Arg Thr Asp Arg Asp Arg Arg Arg Arg Arg Tyr Gln Arg
65                  70                  75                  80
Gly Asp Ala Gly Gly Cys Ala Gly Lys Gly Thr Ala Asp Arg Leu Ala
                85                  90                  95
Gly Tyr Leu Leu Pro Ala
```

100

<210> 31852
<211> 91
<212> PRT
<213> A.fumigatus

<400> 31852
Pro Ile Ser Pro Arg Glu Asp Arg Ala Ala Gly Gly Gln Ala Arg Pro
1 5 10 15
Ala Gly Gly Thr Gly Cys Glu Arg Ala Gly Phe Val Val Gly Pro Asp
20 25 30
Gly Arg Ala Gly Leu Ala Gly Arg Arg Glu Val Gly Gly Leu Leu Pro
35 40 45
Lys Pro Gln Gly Phe Gly Ala Phe Gly Ser Ala Gln Pro Ala His Gly
50 55 60
Arg Gly Cys Gly Ser Ala Gly Ala Asp Ala Gly Leu Trp Ser Gly Arg
65 70 75 80
Asp Ala Ser Ala Gln Thr Val Arg Arg Gly Glu
85 90

<210> 31853
<211> 155
<212> PRT
<213> A.fumigatus

<400> 31853
Ser Ser Gln Met Arg Leu Tyr Thr Glu Val Cys Val Pro Arg Asp Pro
1 5 10 15
Gln Pro Asp Arg Leu Ala Asn Gly Glu Leu Asp Leu Leu Lys Ile Pro
20 25 30
Asp Ala Asp Ala Phe Ala Tyr His Gln Glu Leu Lys Lys Leu Ala Ala
35 40 45
Ser Leu Gly Leu Thr His Leu Glu Phe Val Arg Pro Gly Thr Leu Ala
50 55 60
Gly Ile Val Pro Glu Glu Ala Lys Thr Leu Glu Glu Tyr Ser Asp His
65 70 75 80
Val Ser Lys Thr Arg Asn Leu Leu Asp Gly Thr Leu Ala Gln Ala Val
85 90 95
Asp Pro Asn Glu Asp Glu Asn Met Arg Ala Thr Ser Lys Gln Tyr Asp
100 105 110
Thr Ala Leu Pro Gln Ala Glu Asp His Glu Ala Phe Lys Ala Ala Met
115 120 125
Leu Lys Arg Gly Lys Val Gly Leu Glu Ser His Thr Ala Val Arg His
130 135 140
Asp Val Ala Asp Arg Phe Arg Pro Met Leu Ser
145 150 155

<210> 31854
<211> 79
<212> PRT
<213> A.fumigatus

<400> 31854
Leu Ile Leu Ile Asn Asn Asn Asn Asn Asn Asn Tyr Tyr Tyr Tyr Tyr
1 5 10 15

```
Tyr Tyr Tyr Tyr Tyr Tyr Tyr Tyr Tyr Tyr Tyr Ile Tyr Ile Lys
            20                  25                  30
Ala Lys His His Ile Glu Ser Cys His Ala Gln Ile Asp Gln Asp Ala
        35                  40                  45
Leu Arg Trp Gln Pro Ser His Ser Asn Gly Glu Gln Gly Leu Pro Asp
    50                  55                  60
His Leu His His Leu Ser Leu Ser Ser Pro Leu Arg Arg Cys Ser
65                  70                  75
```

<210> 31855
<211> 135
<212> PRT
<213> A.fumigatus

<400> 31855

```
Ile Lys Met Pro Tyr Ala Gly Asn Leu Pro Thr Pro Thr Glu Asn Lys
1               5                   10                  15
Val Ser Gln Ile Ile Ser Ile Ile Ser Ala Tyr Arg His Arg Ser Ala
            20                  25                  30
Ala Val Pro Asp Arg Phe Ser Glu Phe Ala Pro Ala Leu Glu Lys Gln
        35                  40                  45
Leu Thr Glu Thr Val Ser Lys Gly Glu Pro Val Arg Phe Ile Leu Pro
    50                  55                  60
Ser Phe Pro Phe Lys Ala Pro Ala Glu Gly Asp Lys Arg Lys Thr Leu
65                  70                  75                  80
Gly Ser Leu Pro Asp Lys Ala Glu Glu Ile Ala Leu Gln Thr Leu Asp
                85                  90                  95
Ala Phe Ala Asp Ser Ile Ala Glu Ile His Gln Pro Gly Ala Thr Val
            100                 105                 110
Val Ile Val Ser Asp Ala Ser Val Tyr Gly Gly Met Cys Pro Glu Gly
        115                 120                 125
Ser Pro Ala Arg Gln Thr Gly
    130                 135
```

<210> 31856
<211> 407
<212> PRT
<213> A.fumigatus

<400> 31856

```
Pro Leu Gln Ala Tyr Ala Lys Leu Ile Ala Ser Ser Ala Glu Ser Thr
1               5                   10                  15
Ile Arg Leu Ser Ile His Glu Ser Asn Asn Val Gly Lys Ile Thr Met
            20                  25                  30
Asn Leu Phe Pro Pro Pro Thr Asn Pro Asp Phe Ile Thr Pro Trp His
        35                  40                  45
Gly Ala Val Ala Val Leu Ala Asp Ala Ser Val Arg Ile Val Asp Ala
    50                  55                  60
Ser Thr Val Asp Arg Asp Arg Phe Glu Val Ile Thr Asn His Glu Gly
65                  70                  75                  80
Arg Pro Trp Leu Leu Arg Glu Lys Ser Asp Leu Phe Asp Trp Phe Gly
                85                  90                  95
Met Glu Leu Asp Phe Glu Pro Leu Phe Pro Cys Gly Met Gln Val Arg
            100                 105                 110
Pro Lys Glu Gly Tyr Gly Pro Tyr Arg Phe Glu Asp Val Asn Met Lys
        115                 120                 125
```

```
Leu Val Arg Arg Leu Ala Leu Ser Thr Ala Pro Leu Leu Leu Arg Gly
    130                 135                 140
Phe Thr Met Gln Val Glu Lys Glu Val Phe Arg Ser Lys Ala Arg Glu
145                 150                 155                 160
Leu Gly Glu Ile Gln Met Trp Pro Phe Gly Asp Ile Leu Glu Val Arg
                165                 170                 175
Glu Asn Ala Asp Phe Asn Met Asn Asn Val Leu Thr Arg Glu Ala Met
            180                 185                 190
Pro Phe His Tyr Asp Gly Val Phe Lys Thr Val Gln Asp Glu Lys Thr
        195                 200                 205
Gly Glu Trp Ile Ser Val Pro Pro Leu Phe Gln Met Phe Arg Asn Arg
    210                 215                 220
Ala Ala Ser Gln Ser Lys Gly Gly Leu Thr Leu Phe Ala Ser Ser Arg
225                 230                 235                 240
Asn Leu Ile Pro Leu Leu Gly Pro Asp Ser Ile Pro Leu Glu Glu Leu
                245                 250                 255
Arg Lys Leu Gln Trp Glu Thr Phe Thr Ala Ala Asn Glu Ala Phe Gly
            260                 265                 270
Gly His Lys Leu Gln Leu Pro Phe Ile Ile Thr His Pro Glu Ser Gly
        275                 280                 285
Val Asp Thr Phe Arg Phe His Glu Pro Trp Pro Glu Ser Lys Cys Val
    290                 295                 300
Pro Gly Ser Ser Glu Pro Thr Leu Val Arg Val Val Gly Trp Pro Leu
305                 310                 315                 320
Ala Glu Ser Asp Ala Leu Cys Glu Lys Leu Thr Arg Leu Leu Tyr Asp
                325                 330                 335
Arg Arg Val Ala Tyr Arg His Gln Trp Arg Ala Gly Asp Phe Ile Phe
            340                 345                 350
Asn Asp Asn Ala Met Thr His His Thr Arg Thr Ala Phe Glu Asp Gly
        355                 360                 365
His Arg Glu His Trp Arg Val His Val Asn Lys Met Val Leu Phe Leu
    370                 375                 380
Lys Ser Met Arg Ile Phe Pro Val Arg Asp Arg Asn Gln Asn Glu Ile
385                 390                 395                 400
Gly Ser Met Ile Val Cys Leu
                405
```

<210> 31857
<211> 191
<212> PRT
<213> A.fumigatus

<400> 31857

```
Ala Lys Arg Leu Leu Ser Cys Phe Ser Lys Leu Thr Phe Gly Ala Gln
1               5                   10                  15
His Val Pro Asp Lys Ala Ser Ile Val Ser Lys Ala Thr Lys Lys Ala
            20                  25                  30
Leu Glu Trp Leu Ser Ala Met Ser Asn Phe Asp Lys Ala Ser Gly Arg
        35                  40                  45
Ala Phe Arg Leu Cys Asp Gly Phe Ser Arg Arg Leu Ala Pro His Val
    50                  55                  60
Gly Ala Asp Ile Glu Lys Phe Pro Ala Ala Gly Asp Thr Ala Arg Asp
65                  70                  75                  80
Ala Thr Pro Asp Ala His Phe Asp Asp Ala Glu Asp Thr Ala Val Gly
                85                  90                  95
Lys Thr Ser Ala Asp Asn Leu Thr Thr Glu Leu Asp Ala Ile Ala Cys
```

```
            100                 105                 110
Ser Pro Met Asn Glu Ser Asn Ser Pro Leu Pro Gly Gln Ile Pro Phe
        115                 120                 125
Glu Leu Ala Ser Ser Asp Pro Phe Asp Phe Leu Lys Thr Asp Lys Ser
    130                 135                 140
Val Ser Gly His Asn Thr Phe Asp Asp Leu Phe Pro Tyr Asp Ala Asp
145                 150                 155                 160
Thr Gly Gln Ile Thr Gly Ser Phe Phe Pro Pro Glu Asn Asn Ile Asp
                165                 170                 175
Phe Asp Leu Gly Cys Phe Trp Gly Asp Pro Ile Phe Trp Lys Glu
            180                 185                 190

<210> 31858
<211> 72
<212> PRT
<213> A.fumigatus

<400> 31858
Gly Arg Ala Tyr Ser Ser Ala Ile Ala Gln Lys Pro Asp Ser Ser Glu
1               5                   10                  15
Gly Gln Tyr Lys Ala Ser Gly Asp Ile Val Gly Ala Asn Ser Leu Gly
            20                  25                  30
Pro Phe Glu Gly Lys Cys Arg Asp Ser His Gly Gly Arg Ala Gln Pro
        35                  40                  45
Gly Tyr Ser Lys Pro Ala Lys Thr Ser Tyr Asn Ile Ser Trp Glu Ser
    50                  55                  60
Val Asp Arg Thr Cys Gly Asn Gly
65                  70

<210> 31859
<211> 142
<212> PRT
<213> A.fumigatus

<400> 31859
Ile Glu Arg Glu Leu Glu Ala Val Lys His Val Leu Arg Gly Gly Gln
1               5                   10                  15
Val Cys Cys Pro Ser Phe Ala Arg Val Trp Ile Trp His His Tyr Trp
            20                  25                  30
Ile Gly Phe Arg Phe Cys Val Gly Asp Asp Leu His Tyr Leu Gly Phe
        35                  40                  45
Glu Glu Val Arg Ala Ser His Ile Arg Pro His Arg Ala Thr Pro Asn
    50                  55                  60
Ile Gly Cys Asn Ala Ser Thr Leu Thr Cys Ser His Ala Asn Lys Glu
65                  70                  75                  80
Ser Thr Tyr Arg Tyr Gln His Glu Val Gln Thr Ser Glu Met Phe Ser
                85                  90                  95
Thr Ala Gly Arg Ser Val Lys Ser Gly Leu Val Ala Ala Ala Val Val
            100                 105                 110
Ser Ser Trp Thr Trp Ala Ala Thr Leu Leu Gln Ser Ser Ala Val Ala
        115                 120                 125
Tyr Gln Tyr Gly Val Ser Gly Pro Phe Phe Tyr Ala Ser Gly
    130                 135                 140

<210> 31860
<211> 173
```

<212> PRT
<213> A.fumigatus

<400> 31860
Leu Ile Ser Ala Ile Ala Ala Ser Pro Val His Ala Phe Pro Gly Tyr
1 5 10 15
Val Ile Gly Gly Leu Cys Trp Phe Ala Ile Pro Trp Leu Cys Ala Thr
20 25 30
Thr Met Gly Ile Ser Ala Leu Ala Leu Glu Gly Ala Gln Arg Ile Ser
35 40 45
Ser Asp Asp Val Thr Ala Gly Leu Val Leu Pro Phe Ala Ala Val Arg
50 55 60
Leu Leu Gly Tyr Ser Gly Ala Val Cys Thr Thr Leu Met Val Phe Met
65 70 75 80
Ala Val Thr Ser Ala Phe Ser Ala Gln Leu Ile Ala Val Ser Ser Ile
85 90 95
Val Thr Tyr Asp Val Tyr Gln Ala Tyr Ile Asn Pro Ala Ala Lys Gly
100 105 110
Lys Arg Leu Val Trp Val Ser His Met Ser Cys Ile Val Phe Ala Leu
115 120 125
Ile Met Ala Ala Phe Ala Thr Gly Leu Tyr Tyr Ala Gly Ile Gly Met
130 135 140
Gly Tyr Leu Tyr Leu Leu Met Gly Val Ile Ile Ser Ser Ala Val Phe
145 150 155 160
Leu Gly Ala Met Thr Leu Val Trp Lys Gln Gln Asn Trp
165 170

<210> 31861
<211> 241
<212> PRT
<213> A.fumigatus

<400> 31861
Pro Gly Ile Gly Ala Cys Val Gln Ile Ile Leu Phe Ala Thr Leu Ala
1 5 10 15
Ile Glu Leu Lys Arg Arg Ala Pro Asn Ala His Thr Phe Leu Glu Ala
20 25 30
Leu Arg Ala Arg Tyr Gly Thr Ala Val His Leu Val Phe Ile Val Phe
35 40 45
Cys Leu Met Thr Asn Ile Leu Val Thr Ala Met Leu Leu Thr Gly Gly
50 55 60
Ser Ala Val Leu Thr Ser Leu Thr Gly Val His Thr Ala Ala Ala Cys
65 70 75 80
Phe Leu Leu Pro Ile Gly Val Val Leu Tyr Thr Leu Phe Gly Gly Ile
85 90 95
Lys Ala Thr Phe Ile Thr Asp Tyr Met His Thr Val Val Ile Ile Val
100 105 110
Val Ile Phe Ile Phe Ala Phe Ser Ala Tyr Ala Thr Asn Ala Glu Leu
115 120 125
Gly Ser Pro Gly Lys Val Tyr Asp Ala Leu Val Ala Ala Ser Glu Leu
130 135 140
His Pro Val Glu Gly Asn Ala Gln Gly Ser Tyr Leu Thr Met Arg Ser
145 150 155 160
Lys Glu Gly Gly Ile Phe Trp Val Ile Asn Leu Val Gly Met Tyr Pro
165 170 175
Arg Ala Ala Gln Tyr Asn Asn Thr Ser Ser Asp Arg Cys Phe Ala Gly

```
            180                 185                 190
Asn Phe Gly Leu Val Thr Tyr Ile Ile Arg Thr Ser Arg Gln Ile Ala
        195                 200                 205
Asp Asp Cys Asn Ser Thr Val Phe Leu Asp Asn Gly Tyr Tyr Asn Lys
    210                 215                 220
Gly Ala Ser Thr Leu Phe Leu Lys Glu Gln Leu Gly Glu Glu Asp Thr
225                 230                 235                 240
Asn
```

<210> 31862
<211> 101
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (18),(39)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31862
```
Trp Leu Arg Trp Asn Val Val Leu Gln Leu Cys Leu Thr Phe Leu Gly
1               5                   10                  15
Phe Xaa Leu Phe Leu Ala Tyr Leu Leu Leu Gly Tyr Pro Glu Ala Tyr
            20                  25                  30
Met Gly Leu Phe Asp Ser Xaa Met Leu Pro Leu Leu Tyr Ser Gln Asp
        35                  40                  45
Asn Val Ser Tyr His Ile Ser Tyr Leu Leu Gln Met Lys Lys Ile Asn
    50                  55                  60
Ile Ser Tyr Ser Ser Leu Gly Asp Thr Arg Ser Thr Phe Leu Phe Ile
65                  70                  75                  80
Asn Arg Val Asp Arg Lys Gln Ser Leu Ala Gly Ser Leu Pro Met Tyr
                85                  90                  95
Asp Phe Ala Tyr Ser
            100
```

<210> 31863
<211> 176
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (139)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31863
```
Tyr Arg Asp Trp Met Lys Ser Arg Gly Lys Val Ile Trp Tyr Arg Arg
1               5                   10                  15
Ser His Thr Ala Tyr Thr Ser Ala Val Arg Asp Met Gly Ile Pro Gly
            20                  25                  30
Leu Thr Gln Ser Phe Val Ile Asn Ser Phe Leu Lys Pro Phe Asn Thr
        35                  40                  45
Val Ser Ser Tyr Ile Glu Ile Thr Pro Thr Leu Asp Glu Ser Ile Cys
    50                  55                  60
Leu Ser Gln Asp Phe Pro Thr Arg Lys Met Ala Phe Pro Tyr Ser Gln
```

```
65                  70                  75                  80
Ser Pro Pro Tyr Asp Ala Pro Ala Pro Asp Leu Asn Pro Ser Gly Gly
                85                  90                  95
Ser Tyr Tyr Thr Pro Gln Asp Ala Pro His Gly Tyr Gly Ala Gln Gln
            100                 105                 110
Pro Tyr Gly Gln Pro Gly Gln Leu Glu Gln Tyr Thr Ser Val His Thr
        115                 120                 125
Thr Gln His Asp Leu Ser Pro Gln Ala Gln Xaa Tyr Gln Pro Pro Pro
    130                 135                 140
Pro Arg Asp Phe Leu Ser Pro Ser Asp Ala Leu Gly Tyr Gln His Ala
145                 150                 155                 160
Pro Arg Asn Tyr Glu Ala Arg Gly Arg Gln Gly Ser Asn Ala Glu Tyr
                165                 170                 175
```

<210> 31864
<211> 186
<212> PRT
<213> A.fumigatus

<400> 31864

```
Ala Arg Leu Met Arg Trp Gly Thr Ser Met Arg Pro Glu Thr Thr Lys
1               5                   10                  15
Leu Glu Val Ala Arg Ala Ala Met Leu Ser Ile Ser Met Thr Pro Ser
            20                  25                  30
Ser Ser Ile Trp Phe His Leu Arg Leu Thr Pro Tyr Ser Asn Gln His
        35                  40                  45
Thr Asp Glu His Arg Asn Ile Ser Arg Ser Arg Arg Ser Arg Ser Arg
    50                  55                  60
Ala Ser Ser Ser Ala Met Lys Asp Arg Ser Gly Ser Arg Ser Arg Ser
65                  70                  75                  80
Arg Ser Gly Ser Ser Gly Gln Asp Arg Ser Leu Ala Gly Thr Leu Met
                85                  90                  95
Gly Gly Ala Ser Gly Tyr Tyr Leu Gly His Lys Gln Ser His Gly Leu
            100                 105                 110
Leu Gly Ala Leu Gly Gly Ala Leu Leu Gly Asn Phe Leu Glu His Gln
        115                 120                 125
Val Glu Glu His Lys Glu His Gly Glu Asp His His Lys Arg His Arg
    130                 135                 140
His Arg His Arg His His His His His His His His Asn His Asp His
145                 150                 155                 160
Gly His Leu Asp Gln His His His Asp His Arg His His Arg Ser Arg
                165                 170                 175
Ser Arg His Ser Arg His Ser Asp Tyr Ser
            180                 185
```

<210> 31865
<211> 78
<212> PRT
<213> A.fumigatus

<400> 31865

```
Gly Ile Phe Trp Ser Thr Arg Trp Arg Asn Thr Arg Ser Met Val Arg
1               5                   10                  15
Ile Ile Thr Ser Ala Ile Ala Ile Ala Ile Val Ile Thr Thr Thr Thr
            20                  25                  30
Ile Ile Ile Ile Met Ile Met Gly Ile Ser Ile Asn Thr Thr Met Thr
```

```
        35                  40                  45
Ile Gly Ile Ile Gly Ala Val Arg Asp Ile Val Asp Thr Val Ile Ile
    50                  55                  60
Leu Glu Val Trp Asp Arg Cys Gly Met Cys Ser Val Trp His
65                  70                  75
```

<210> 31866
<211> 203
<212> PRT
<213> A.fumigatus

```
<400> 31866
Ala Ser Lys Arg Ala Phe Val Asn Cys Leu Asp Ser Leu Ser Met Pro
1               5                   10                  15
Pro Pro Leu Leu Tyr Asn Val Leu Pro Ala Ala Leu Pro Ala His Cys
            20                  25                  30
Glu Pro Ser Ser Pro Phe Leu Ala Ala Val Ser Ser His Leu His Ile
        35                  40                  45
Cys Leu Pro Thr Pro Leu Ala Leu Leu Ser Ser Ile Leu Gly Thr Leu
    50                  55                  60
Ser Ile Ile Ser Trp Leu Phe Ala Gln Leu Pro Gln Ile Tyr Lys Asn
65                  70                  75                  80
Tyr Gln Leu Gln Ser Thr Ser Gly Leu Ser Leu Phe Phe Leu Val Glu
                85                  90                  95
Trp Cys Leu Gly Asp Thr Gly Asn Leu Val Gly Ala Leu Phe Thr Arg
            100                 105                 110
Gln Ala Ala Trp Gln Val Ile Ile Ala Ala Tyr Tyr Val Leu Val Asp
        115                 120                 125
Val Thr Leu Val Phe Gln Phe Phe Trp Tyr Thr His Tyr Lys Gly Arg
    130                 135                 140
Arg Val Ala Tyr Gly Gly His Ser His Ser His His Gly Glu Asp Ala
145                 150                 155                 160
Gly Ser Phe Leu Glu Gly Val Pro Leu Ser Glu Glu Asp Ser Ile Thr
                165                 170                 175
Asp Ile Pro Pro Arg Lys Pro Ala Thr Glu Gly Ser Ala Ser Ile Asp
            180                 185                 190
His Glu Ala Pro Lys Ser Ala Tyr Arg Leu Tyr
        195                 200
```

<210> 31867
<211> 103
<212> PRT
<213> A.fumigatus

```
<400> 31867
Arg Ala Ala His Pro Val Val Pro Ala Phe Pro Phe Phe Phe Pro Leu
1               5                   10                  15
Pro Phe Ser His Phe Ser Gln Phe Val Asn Met Asp Asn Val Thr Glu
            20                  25                  30
Lys Gln Thr Ser Ala Leu Glu Leu Glu Glu Gln Pro Val Ser Lys Gly
        35                  40                  45
Gly Pro Val Tyr Asp Val Asn Glu Lys Val Gly Leu Asp Arg Ala Gly
    50                  55                  60
Ala Ile Asn Ala Glu Asp Val Glu His Lys Met Thr Val Val Glu Ala
65                  70                  75                  80
Val Lys Ala Tyr Pro Ala Ala Ser Trp Trp Ala Phe Val Met Ser Cys
```

85 90 95
Thr Ile Val Ser Ser Cys Ala
100

<210> 31868
<211> 227
<212> PRT
<213> A.fumigatus

<400> 31868
Glu Leu Gln Arg Arg Arg Cys Cys Arg Cys Ser Gly Leu Leu Gly Gln
1 5 10 15
Ser Leu Leu Ala Val Ser Leu Thr Thr Thr Asn Pro Gly Met Thr Pro
20 25 30
Gln Arg Thr Gly Ser Ser Ala Pro Ile Tyr Ala Ile Glu Glu His Cys
35 40 45
Thr Asn Ser His Ala Arg Ile Pro Ile Ala Leu Gln Trp Met Phe Pro
50 55 60
Thr Pro Leu Ala Ile Leu Leu Tyr Leu Ala Pro Glu Ser Pro Trp Trp
65 70 75 80
Leu Val Arg Lys Gly Arg Leu Ala Asp Ala Glu Lys Ala Val Arg Arg
85 90 95
Leu Gly Arg Ala Ser Ala Asn Asp Asp Pro Ala Asp Ala Val Ala Met
100 105 110
Met Arg Arg Thr Ile Glu Leu Glu Lys Thr Glu Lys Lys Pro Ser Leu
115 120 125
Val Glu Leu Trp Lys Gly Thr Asp Leu Tyr Arg Thr Leu Ile Val Cys
130 135 140
Gly Val Tyr Ala Ser Gln Asn Leu Thr Gly Asn Leu Ile Ala Asn Gln
145 150 155 160
Ala Val Tyr Phe Phe Lys Arg Glu Ser Asn Pro Phe Leu His Thr His
165 170 175
Ser Arg Leu Thr Pro Ala Gln Arg Pro Val Trp Gln Thr Thr Pro His
180 185 190
Leu His Ser Val Ser Ser Leu Leu Leu Ser Ser Gly Ser Trp Ser Cys
195 200 205
Ser Leu Gly Ser Ser Pro His Thr Ser Ala Asp Ala Pro Ser Met Ser
210 215 220
Met Ala Asn
225

<210> 31869
<211> 173
<212> PRT
<213> A.fumigatus

<400> 31869
Ile Met Glu Ser Tyr Cys Val Phe Leu Met Gly Gln Phe Ile Ala Thr
1 5 10 15
Lys Arg Phe Ala Arg Asp Tyr Gly Val Trp Ser Asp Val Lys Gln Asp
20 25 30
Phe Ile Ile Glu Ala Ser Trp Gln Ser Ala Phe Gln Cys Ser Gly Pro
35 40 45
Val Gly Ala Phe Ile Gly Val Phe Ile Ala Gly Pro Ile Thr Ser Trp
50 55 60
Ile Gly Tyr Arg Trp Ala Thr Ile Gly Gly Leu Met Phe Leu Asn Ala

```
65                  70                  75                  80
Phe Ile Phe Ile Phe Tyr Phe Gly Asn Ser Gln Gly Met Phe Leu Ala
                85                  90                  95
Ser Gln Ile Leu Glu Gly Ile Pro Trp Gly Ile Phe Val Ala Asn Ala
            100                 105                 110
Pro Ala Tyr Cys Ser Glu Ile Val Pro Met Arg Leu Arg Ala Pro Ala
        115                 120                 125
Thr Gln Met Leu Gln Met Phe Trp Ala Ile Gly Ser Ile Ile Val Gly
    130                 135                 140
Gly Ile Thr Tyr His Tyr Gln Ser Arg Asp Asp Pro Thr Ala Tyr Arg
145                 150                 155                 160
Phe Val Arg Ser His Ile Cys His Arg Gly Ala Leu Tyr
                165                 170
```

<210> 31870
<211> 99
<212> PRT
<213> A.fumigatus

<400> 31870

```
Val Gln Pro Phe Pro Ala His Ser Gln Gln Thr Asn Thr Ser Ser Glu
1               5                   10                  15
Ala Gly Met Ala Asp Asn Thr Ala Phe Ala Leu Gly Leu Ile Thr Ser
            20                  25                  30
Ala Leu Gln Trp Ile Met Val Met Leu Ser Trp Ile Leu Thr Thr Tyr
        35                  40                  45
Leu Gly Arg Arg Thr Ile Tyr Val Tyr Gly Gln Leu Ile Asn Cys Val
    50                  55                  60
Phe Leu Val Ala Leu Gly Ile Ala Ala Ser Val Gly Ala Ser Lys Ala
65                  70                  75                  80
Ala Ser Asn Ala Val Phe Thr Thr Gly Leu Glu Gly Ser Asp Gly Val
                85                  90                  95
Ser Thr Lys
```

<210> 31871
<211> 77
<212> PRT
<213> A.fumigatus

<400> 31871

```
Pro Thr Ser Tyr Phe Pro Leu Ser Phe Ser Ser Ile Gln Val Ile Leu
1               5                   10                  15
Ser Pro Ala Val Thr Tyr Gln Val Asp Cys Leu Ser Ile Ile Ala Phe
            20                  25                  30
Ser Phe Leu Leu Phe Ile Arg Phe Ser Pro Ser Phe Cys Leu Phe Ser
        35                  40                  45
Leu Cys Val Arg Gln Val Thr His Arg Thr Leu Thr Asp Leu Asp Lys
    50                  55                  60
Ile Phe Ser Leu Arg Ile Ile Ser Val Gln Ile Gly Cys
65                  70                  75
```

<210> 31872
<211> 132
<212> PRT
<213> A.fumigatus

<400> 31872
Pro Tyr Ala Gln Phe Arg Asn Lys Phe Leu Pro Lys Asp Ile Lys Ile
1 5 10 15
Val Gly Tyr Ala Arg Thr Lys Met Asp His Glu Glu Phe Leu Lys Arg
20 25 30
Val Arg Ser Tyr Ile Lys Val Pro Thr Lys Glu Ile Glu Glu Gln Leu
35 40 45
Asp Ser Phe Cys Gly Leu Cys Thr Tyr Ile Ser Gly Gln Tyr Asp Gln
50 55 60
Asp Asp Ser Phe Ile Asn Leu Arg Lys His Leu Glu Lys Val Glu Lys
65 70 75 80
Gly His Lys Glu Gln Asn Arg Val Phe Tyr Met Ala Leu Pro Pro Ser
85 90 95
Val Phe Thr Thr Val Ser Glu Gln Leu Lys Arg Asn Cys Tyr Pro Lys
100 105 110
Asn Gly Ile Ala Arg Ile Ile Val Ser Phe Pro Thr Gln Pro Glu Glu
115 120 125
Lys Ser Asn Ile
130

<210> 31873
<211> 108
<212> PRT
<213> A.fumigatus

<400> 31873
Glu Glu Thr Leu Ala Ala Ser Ser His Met Val Arg Ile Gly Ser His
1 5 10 15
Gln Leu Arg Ile Ala Thr Asn Leu Val Leu Glu Thr Lys His Phe Ile
20 25 30
Tyr Leu Leu Pro Arg Thr Leu Arg His Pro Pro Leu Gln Asp Thr Ile
35 40 45
Glu Ser Tyr Val Met Phe Thr Ser Tyr Phe Gly Asp Gly Glu Ser Thr
50 55 60
Leu Arg Ser Pro Ser Ala Lys Ser Gly Asn Pro Glu Leu Thr Leu Arg
65 70 75 80
Glu Gln Ser Gln Met Glu Gly Trp Cys Ala Ala Ala Gly His Asn Arg
85 90 95
His Arg Leu Leu Leu Asp Lys Ser Asn Val Ser Cys
100 105

<210> 31874
<211> 309
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (306)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31874
Ile Glu Val Cys Ser Gly Thr Asn Ile Tyr Cys Gln Arg Ile Val Gly
1 5 10 15
Val Arg His Lys Cys Leu Thr Cys Pro Asp Trp Asp Tyr Cys Ser Glu

```
            20                  25                  30
Cys Val Gly Asn Ala Ala Gln Thr His Pro Gly His Arg Phe Ala Pro
        35                  40                  45
Leu Tyr Glu Ala Ile Ser Glu Pro Ile Gln His His Glu Val His Tyr
    50                  55                  60
Gly Ile Tyr Cys Asp Gly Pro Leu Cys Lys Asp Lys Pro Phe Pro Arg
65                  70                  75                  80
Tyr Ile Thr Gly Val Arg Tyr Lys Cys Ser Val Cys His Asp Thr Asp
                85                  90                  95
Phe Cys Ala Lys Cys Glu Ala Leu Pro Thr Asn Pro His Asn Arg Thr
            100                 105                 110
His Pro Leu Leu Met Leu Lys Thr Pro Val Arg Gly Val Thr Ile Ser
        115                 120                 125
Asn Ser Val Thr Glu Asn Gly Phe Gly Gly Pro Val Ile Leu Thr Gly
    130                 135                 140
Asp Gln Val Asn Arg Ser Thr Ser Ala Gln Ala Asn Ile Pro Ala Glu
145                 150                 155                 160
Ala Glu Lys Ser Ser Glu Ala Pro His His Glu Glu Glu Ala Thr Val
                165                 170                 175
Lys Gln Lys Glu Val Val Glu Pro Ser Pro Gly Ala Ala Glu Lys Ala
            180                 185                 190
Gln Ser Lys Val Tyr Glu Met Pro Thr Thr Asp Pro Ala Ser Ser Tyr
        195                 200                 205
Gln Ala Phe Phe Ile Arg Asp Thr Val His Asp Gly Thr Val Met Leu
    210                 215                 220
Pro Asn Lys Val Phe Gln Gln Thr Trp Thr Leu Tyr Asn Pro Gly Pro
225                 230                 235                 240
Leu Ala Trp Pro Ala Gly Ser Ser Val Arg Phe Val Gly Gly Asp Ser
                245                 250                 255
Met Phe Asn Val Asp Thr Asn Arg Pro Met Ser Leu Asp Ala Val Ser
            260                 265                 270
Ala Ala Met Glu Ser Asn Gln Leu Leu Glu Pro Leu Glu Pro Gly Gln
        275                 280                 285
Ser Ala Asp Phe Thr Val Ser Ser Pro Arg Gly Cys Lys Gly Pro Leu
    290                 295                 300
Gln Xaa Leu Ser Asn
305
```

<210> 31875
<211> 306
<212> PRT
<213> A.fumigatus

<400> 31875

```
Leu Arg Gln Leu Ile Gly Val Pro Pro Asp Ser Asn Ile Ile Phe Glu
1               5                   10                  15
Arg Tyr Ser Asp Ser Ala Gly Cys Tyr Val Arg Leu Asp Ser Glu Asn
            20                  25                  30
Leu Ala Val Tyr Lys Gln Leu Tyr Arg Ala Ala Lys Ala Lys Leu Lys
        35                  40                  45
Leu Arg Ile Arg Ala Thr Leu Val Asn Glu Val Asn Glu Pro Val Ala
    50                  55                  60
Gln Pro Ala Leu Ser Glu Asn Ala Pro Glu Glu Gln Gly Pro Ala Arg
65                  70                  75                  80
Tyr Ser Tyr Leu Glu Thr Val Leu Ser Ser Pro Pro Pro Val Met Gly
                85                  90                  95
```

```
Ser Glu Val Val Pro Ser Gly Ser Ser Glu Ser Val Pro Gly Leu Leu
            100                 105                 110
Gly Ala Leu Glu Lys Pro Ala Ser Val Gly Pro Gln Ser Ala Gln Trp
        115                 120                 125
Thr Lys Asp Asn Thr Ala Pro Ala Gln Pro Gly Tyr Arg Asp Phe Val
    130                 135                 140
Leu Asn Thr Asp Asn Val Asp Val Pro Ile Val Ser His Arg Ser Pro
145                 150                 155                 160
Thr Gly Val Phe Cys Ile Asp Cys Asn Asn Cys Gly Arg Ser Ile Arg
                165                 170                 175
Asn Glu His Tyr His Cys Ser Ile Cys Glu Asp Gly Asp Phe Asp Leu
            180                 185                 190
Cys Ser Gln Cys Val Asn Ser Gly Val Ser Cys Gln Ser Glu Asp His
        195                 200                 205
Trp Leu Ile Lys Arg Ile Val Glu Asp Gly Ile Val Thr Asn Ser Thr
    210                 215                 220
Thr Glu Arg Val Ala Pro Arg Lys Val Glu Glu Pro Arg Gln Ser Lys
225                 230                 235                 240
Thr Gly Ser Glu Thr Leu Pro Glu Leu Ala Pro Glu Glu Val Gln Lys
                245                 250                 255
Pro Thr Pro Ala Pro Glu Glu Val Gln Glu Pro Thr Pro Ala Thr Ala
            260                 265                 270
Glu Lys Tyr Pro Leu Gln Pro Ala Glu Arg Ile Cys Asn Ser Cys Leu
        275                 280                 285
Lys Gly Ala Leu Pro Val Val Thr His Glu Val Ser Val Val Ala His
    290                 295                 300
Ser Arg
305

<210> 31876
<211> 63
<212> PRT
<213> A.fumigatus

<400> 31876
Asn Lys Val Ile Glu Gln Ile Leu Trp Leu Asn Thr Ile Glu Ser Leu
1               5                   10                  15
Pro Thr Val Val Gly Lys Asp Ser Met Val Leu Asp Gly Glu Trp Phe
            20                  25                  30
Lys Leu Arg Pro Glu Leu Thr Arg Val Glu Tyr His Pro Thr Tyr Leu
        35                  40                  45
Leu Lys Glu Glu Pro Glu His Pro Val Ser Leu Arg Gly Asn Leu
    50                  55                  60

<210> 31877
<211> 393
<212> PRT
<213> A.fumigatus

<400> 31877
Ala Arg Gly Ile Phe Gln Pro Ile Gln Cys Cys Leu Cys Glu Gly Glu
1               5                   10                  15
Asp Leu Gln Thr Ser Pro Gly Phe Pro Ile Asn Lys Arg Lys Val Thr
            20                  25                  30
Trp Ser Gly Gly Pro Cys Ala Ser Gly Ser Ile Asn Cys Gly Tyr Leu
        35                  40                  45
```

```
Pro Phe Lys Glu Leu Gly Gly Ser Leu Phe Trp Pro Gly Ser Ser Cys
    50                  55                  60
Cys Pro Leu Leu Thr Met Ala Ser Ile Ser Leu Pro Leu Pro Pro Gln
65                  70                  75                  80
Ser Pro Ala Ala Leu Ser Gln His Phe Asp Ser Pro Ser Gln Ser Pro
                85                  90                  95
Ser Arg His Ser Arg Arg Asn Leu Ser Met Ala Ala Pro Leu Pro Asn
            100                 105                 110
Pro Pro Phe Val Phe Pro Ala Arg Asp Pro Glu Pro Ser Asn Met Arg
        115                 120                 125
Pro Ser Ala Pro Pro Glu Gln Arg Ser Arg Ile Pro His Pro Leu Pro
    130                 135                 140
Ala Phe Ser Phe Asn Pro Gly Ser Ser His Thr Thr Gln Ser Pro Val
145                 150                 155                 160
Ser Ala Val Pro Pro Ala Arg Val Ser Gly His Arg Arg Arg Pro Ser
                165                 170                 175
Glu Phe Ile Gly Gly Asp Gln Leu Val Thr Lys Gly Val Thr Glu Thr
            180                 185                 190
Gly Gln Ser Asn Asp Glu Asn Ser Leu Pro Ala Pro Ala Lys Leu Pro
        195                 200                 205
Thr Pro Gly Pro Gly Phe Ser Ala Gly Gly Pro Gly Arg Arg His His
    210                 215                 220
Ala His Arg Arg Ser Ala Ala Val Ser Gly Val Asp Leu Ala Glu Ile
225                 230                 235                 240
Thr Lys Ala Leu Ala Leu Lys Pro Ala Val Ser Thr Pro Ser Thr Pro
                245                 250                 255
Ala Asp Pro Lys Ile Gly Ala Phe Glu Glu Gln His Arg Pro Val Ser
            260                 265                 270
Tyr Ser Ala Ile Ser Leu Ser Arg Pro Thr Pro Pro Ala Ser Pro Arg
        275                 280                 285
Ile Pro Phe Ala Gly Ser Ser Pro His Arg Ala Ala Thr Glu Ser Pro
    290                 295                 300
Val Gln Ser Pro Ala Ser Gly Arg Pro Val Leu Pro Val Lys Pro Asn
305                 310                 315                 320
Ser Pro Gly Pro Asn Gly Ser His Gln Ser Gln Leu Gly Ala Arg Asn
                325                 330                 335
Ser Gly Lys Ser Gly Lys Asp Gly Phe Leu Ala Val Asn Asp Ala Thr
            340                 345                 350
Pro Ser Ala Pro Glu Lys Ala Phe Pro Ile Pro Arg Thr Ala Asp Ala
        355                 360                 365
Leu Leu Met Cys Asp Leu Gly Gly Asn Gly Val Ser Gly Asp Val Ser
    370                 375                 380
His Met Lys Arg Pro Ser Ser Ala Thr
385                 390
```

<210> 31878
<211> 66
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (6)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31878

```
Val Ser Thr Lys Cys Xaa Val Arg Ile Phe Met Thr Thr Ile Ala Lys
1               5                  10                  15
Ser His Gly Thr Asn Gln Ala Val Ser Cys Cys Leu Phe Asn His Ser
            20                  25                  30
Gly Gln Pro Glu Thr Asn Thr Gly Thr Ala Asn Gly Ser Pro Leu Ser
        35                  40                  45
Gln Asn Gly Ser Phe Asn Tyr Arg Thr Trp Lys Ile Phe Thr Leu Lys
    50                  55                  60
Ile Asn
65
```

<210> 31879
<211> 223
<212> PRT
<213> A.fumigatus

<400> 31879

```
Leu Ala Lys Asn Val Leu Thr Phe Asn Ile Leu Phe Asp Gly Ile Pro
1               5                  10                  15
Ile Ile Tyr Gln Gly Gln Glu Gln His Phe Asn Gly Ala Tyr Tyr Ala
            20                  25                  30
Asn Asn Ser Asn Arg Glu Ala Val Trp Leu Ser Gly Tyr Asn Thr Asp
        35                  40                  45
Ala Glu Leu Tyr Lys Leu Ala Ala Lys Leu Asn Arg Leu Arg Lys His
    50                  55                  60
Val Tyr Asn Leu Asp Asn Asn Tyr Leu Asp Ile Glu Thr Tyr Pro Ile
65                  70                  75                  80
Tyr Gln Gly Ser Ser Glu Leu Ala Phe Arg Lys Gly Val Glu Gly Arg
                85                  90                  95
Gln Thr Ile Met Leu Leu Ser Thr Gln Gly Ala Asn Gln Lys Glu Pro
            100                 105                 110
Tyr Asp Leu Tyr Met Pro Val Ser Phe Asn Pro Gly Val Val Ala Met
        115                 120                 125
Asp Val Leu Asn Cys Val Asn Tyr Thr Val Asn Arg Ala Gly Gln Leu
    130                 135                 140
Val Val Pro Met Asp Lys Gly Glu Pro Arg Val Phe Phe Pro Ala Asn
145                 150                 155                 160
Leu Met Pro Gly Ser Gly Leu Cys Gly Phe Ser Asp Thr Asn Ile Ser
                165                 170                 175
Tyr Val Glu Leu Lys Thr Gly Lys Pro Ala Ser Ser Gly Ser Ala Lys
            180                 185                 190
Val Phe Ser Met Thr Pro Ala Gly Ile Pro Val Thr Ile Leu Phe Ser
        195                 200                 205
Val Leu Val Ser Leu Gly Phe Gly Leu Gly Phe Gly Leu Gly Cys
    210                 215                 220
```

<210> 31880
<211> 150
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (128)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31880
Ile Val Ser Leu Asn Cys Gln Cys Asp Leu Ser Ala Arg Leu His Asn
1 5 10 15
Glu Thr Arg Arg Ala Lys Ser Lys Ile Lys His Cys Ile Asn Tyr Tyr
20 25 30
Gly Asp Arg Ile Asp Ser Asp Lys Asp Arg His Ser Leu Ile Met Arg
35 40 45
Met Ala Asp Pro His Ile His Thr Glu Gln Tyr Gly Val Tyr Val Gln
50 55 60
Tyr Ala Val Gly Gly Cys Pro Ile Tyr Gln Arg Arg Phe Pro Gly Ala
65 70 75 80
Arg Thr Gly Ser Phe Val Ser Glu Met Thr Lys Gly Ser Arg Leu Gln
85 90 95
Ser Gln Gly Asp Gln Thr Lys Gln Glu Arg Ser Ser Gly Asp Gly Glu
100 105 110
Arg Ala Gly Thr Val Gly Gly Gly Gly Gly Gly Ala Gly Ala Gly Xaa
115 120 125
Gly Ser Ala Ala Gly Phe Ala Ala Gly Gly Gly Gly Ser Leu Gly Ser
130 135 140
Cys Arg Gly Gly Glu Tyr
145 150

<210> 31881
<211> 95
<212> PRT
<213> A.fumigatus

<400> 31881
Arg Arg Asn Thr Ser Ser Leu Ala Asn Ile Val Glu Val Met Lys Asn
1 5 10 15
Ser Cys His Asp Val Thr Ser Met Thr Thr Phe Thr Glu Ser His Asp
20 25 30
Val Asn Arg Phe Ala Asn Met Thr Ser Asp Met Ala Val Gly Thr Asp
35 40 45
Pro Phe Pro Pro Thr Lys Ala Ile Pro Pro Pro Leu Pro Ala Asp Thr
50 55 60
Leu Asn Pro Phe Leu Ala Arg Lys Glu Cys Thr Tyr Val Gln His Pro
65 70 75 80
Leu Arg Arg His Pro His His Ile Pro Gly Ala Gly Ala Ala Leu
85 90 95

<210> 31882
<211> 100
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (21),(44),(50),(82),(88)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31882
His Gly Ser Gln Ile Leu Gln His Ile Arg Asn Trp Ile Arg Ser Gly
1 5 10 15
Tyr Pro Asp Gln Xaa Gly Phe Pro Gly Ile Pro Arg Thr Arg Glu Ser
20 25 30

```
Leu Ala Gln Trp Gln Gln Phe Lys Val Gly Ser Xaa Gly Ser Leu Thr
        35                  40                  45
Thr Xaa Asp Leu Ile Ser Ser Ala Ser Ala Thr Gly Ser Ala Ser Thr
    50                  55                  60
Ser Phe Ser Ser Thr Val Arg Phe Phe Ser Thr Ala Ser Ala Tyr Ala
65                  70                  75                  80
Thr Xaa Phe Ala Ser Ala Thr Xaa Phe Ser Thr Leu Ser Lys Ser Ala
                85                  90                  95
Ser Gly Thr Gly
            100
```

<210> 31883
<211> 94
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (8),(14),(62)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31883

```
His Cys Ile Cys Ile Cys His Xaa Phe Cys Ile Cys His Xaa Phe Phe
1               5                   10                  15
His Leu Glu Gln Val Arg Leu Trp His Arg Leu Val Ala Cys Ser Gly
            20                  25                  30
Phe Phe Lys Ser Arg Val Leu Ile Phe Ser Ala Ser Ala Ala Ser Lys
        35                  40                  45
Thr Ala Ser Ala Thr Gly Ser Glu Thr Ser Gly Ala Ser Xaa Ser Ser
    50                  55                  60
Thr Ser Ser Pro Thr Thr Thr Pro Asn Gly Ala Gly Ser Leu Thr Val
65                  70                  75                  80
Pro Ala Gly Ser Leu Leu Leu Gly Leu Val Ala Leu Ala Leu
                85                  90
```

<210> 31884
<211> 153
<212> PRT
<213> A.fumigatus

<400> 31884

```
Ser Tyr Ser Leu Gly Pro Asp Glu Tyr Val Met Ala Val Lys Asn Met
1               5                   10                  15
Asp Leu Glu Val Ser Glu Asn Thr His Glu Arg Arg Asn Met Ile Val
            20                  25                  30
Val Gly Thr Ala Phe Ala Arg Gly Glu Asp Ile Pro Ser Arg Gly Cys
        35                  40                  45
Ile Tyr Val Phe Glu Val Ile Lys Val Val Pro Asp Pro Glu Lys Pro
    50                  55                  60
Glu Thr Asp Arg Lys Leu Lys Leu Ile Gly Lys Glu Leu Val Lys Gly
65                  70                  75                  80
Ala Val Thr Ala Leu Ser Gln Ile Gly Gly Gln Gly Phe Leu Ile Ala
                85                  90                  95
Ala Gln Gly Gln Lys Cys Met Val Arg Gly Leu Lys Glu Asp Gly Ser
            100                 105                 110
Leu Leu Pro Val Ala Phe Met Asp Met Gln Cys Tyr Val Asn Val Leu
```

```
        115                 120                 125
Lys Glu Leu Lys Gly Thr Gly Met Cys Ile Met Gly Asp Ala Val Lys
    130                 135                 140
Gly Leu Trp Phe Ala Gly Tyr Ser Val
145                 150

<210> 31885
<211> 163
<212> PRT
<213> A.fumigatus

<400> 31885
Phe Gln Ile Asp Pro Lys Ser Ser Asn Gly Asp Arg Leu Leu Ala Arg
1               5                   10                  15
Ser Lys Phe His Met Gly His Phe Ala Thr Thr Met Thr Leu Leu Pro
            20                  25                  30
Arg Thr Met Val Ser Ser Glu Lys Ala Met Ala Asn Pro Asp Ser Met
        35                  40                  45
Glu Ile Asp Ser Gln Thr Ile Ser Gln Gln Val Leu Ile Thr Ser Gln
    50                  55                  60
Ser Gly Ser Val Gly Ile Val Thr Ser Val Pro Glu Glu Ser Tyr Arg
65                  70                  75                  80
Arg Leu Ser Ala Leu Gln Ser Gln Leu Ala Asn Ser Leu Glu His Pro
                85                  90                  95
Cys Gly Leu Asn Pro Arg Ala Tyr Arg Ala Val Glu Ser Asp Gly Thr
            100                 105                 110
Ala Gly Arg Gly Met Leu Asp Gly Asn Leu Leu Tyr Gln Trp Leu Asp
        115                 120                 125
Met Gly Gln His Arg Lys Met Glu Ile Ala Ala Arg Val Gly Ala His
    130                 135                 140
Glu Trp Glu Ile Lys Ala Asp Leu Glu Ala Ile Gly Ala Glu Gly Leu
145                 150                 155                 160
Gly Tyr Leu


<210> 31886
<211> 118
<212> PRT
<213> A.fumigatus

<400> 31886
Asn Leu Gly Gln Arg Ile Arg Arg Leu Leu Leu Ser Phe Phe Asn Leu
1               5                   10                  15
Ile Ser Leu Ile Leu Ser Tyr Leu Ile Ser Phe Ser Arg Ser Gly Phe
            20                  25                  30
Leu Leu Val Ser Leu Arg Tyr Arg Val Gln Gly Ser Ser Thr Ser Ile
        35                  40                  45
Ala Ser Cys Ala Leu Ser Ser Ile His Leu Met Ser Tyr Ser Leu Asn
    50                  55                  60
Arg Ala Pro Thr Tyr Ser Cys Pro Ser Gln Gly Gly Phe Thr Pro Tyr
65                  70                  75                  80
His Phe Leu Lys Cys Leu Thr Ile Glu Phe Ser Pro Asn Leu Leu Leu
                85                  90                  95
Cys Tyr Met Thr Leu Leu Lys Ser Leu Phe Gln Asp Gly Gln Val Ala
            100                 105                 110
Ser Leu Asn Thr Arg Ser
```

115

<210> 31887
<211> 69
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (46)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31887
Ile Phe Leu Phe Thr Phe Ala Val Leu Gly Ile Ser Leu Leu Leu Gly
1 5 10 15
Lys Thr Lys Ser Asp Phe Arg Gly Cys Tyr Met Ile Ile Leu Met Pro
20 25 30
Met His Asn Ile Val Glu Gly Arg Leu Ala Ala Val Phe Xaa Phe Phe
35 40 45
Phe Ser Phe Leu Ser Ala Pro Phe Phe Ser Leu Tyr Tyr Ile Leu Cys
50 55 60
Gln Ile Asp Ser Phe
65

<210> 31888
<211> 273
<212> PRT
<213> A.fumigatus

<400> 31888
Leu Glu Arg Gly Tyr Thr Ile Ser Phe Asp Phe Pro Gln Lys Phe Ala
1 5 10 15
Asn Phe Leu Ile Gly Lys Arg Gly Glu Asn Ile Asn Lys Leu Arg Glu
20 25 30
Glu Phe Asp Val Asp Ile Lys Val Asp Asn Gly Lys Val Glu Val Lys
35 40 45
Gly Pro Lys Ala Lys Ala Asp Ala Ala Lys Thr Arg Ile Ile Asn Leu
50 55 60
Gly Lys Lys Leu Glu Asp Glu Thr Thr His Val Leu Lys Ile Pro Ala
65 70 75 80
Gln Tyr His Arg Glu Leu Ile Gly Gln Lys Gly Ser Gln Val Asn Arg
85 90 95
Leu Gln Asp Arg Tyr Ser Val Arg Val Gln Phe Pro Arg Ala Ala Val
100 105 110
Ala Thr Pro Ser Phe Asp Asp Gln Ser Val Ala Asp Thr Ser Ser Glu
115 120 125
Val Gly Gly Ser Arg Pro Ile Arg Pro Asn Gln Ala Pro Asp Glu Val
130 135 140
Ile Val Lys Gly Pro Ser Lys Gly Ala Asp Ala Ala Arg Asp Glu Ile
145 150 155 160
Leu Ser Leu Leu Gln Trp Val Ile Asp His Ser His Ser Ala Thr Val
165 170 175
Ser Val Ala Gln Ser Gln Ile Pro Ser Leu Ile Gly Gln Arg Gly Arg
180 185 190
Glu Met Asp Lys Leu Arg Ala Asp Thr Gly Ala Gln Ile Asp Val Pro
195 200 205

```
Gly Ala Asn Asp Ala Pro Asp Ala Ser Gly Arg Val Gln Ile Lys Ile
    210                 215                 220
Lys Gly Thr Lys Gln Gln Val Glu Glu Ala Lys Lys Ile Leu Leu Gln
225                 230                 235                 240
Arg Ser Ser Glu Phe Asp Ala Ile Val Thr Lys Thr Ile Asp Val Asp
                245                 250                 255
Lys Lys Tyr His Lys Ala Leu Ile Gly Ala Gly Gly Lys Phe Val Leu
            260                 265                 270
Ile
```

<210> 31889
<211> 340
<212> PRT
<213> A.fumigatus

<400> 31889

```
Val Ser Arg Pro Pro Trp Lys Leu Thr Gln Cys Pro Gly Ala Asn Ile
1               5                   10                  15
Arg Lys Ile Val Thr Glu Ala Gly Gly Pro Thr Asp Gly Ser Ala Ser
            20                  25                  30
Arg Ile Val Arg Phe Pro Arg Pro Asp Ser Ser Glu Ser Thr Ile Lys
        35                  40                  45
Leu Glu Gly Asn Gly Lys Val Val Asp Asn Ile Ile Ala Ala Ile Glu
    50                  55                  60
Ala Phe Val Arg Glu Arg Glu Asp Gln Val Thr Val Thr Val Asp Ile
65                  70                  75                  80
Pro Pro Val Gln His Arg Leu Leu Ile Gly Arg Gly Gly Glu Thr Arg
                85                  90                  95
Arg Gly Ile Glu Ser Gln Phe Asn Val Thr Leu Asp Ile Pro Lys Gln
            100                 105                 110
Gly Ser Gly Arg Thr Asp Ile Lys Leu Lys Gly Pro Ser Asn Ala Val
        115                 120                 125
Glu Ser Ala Lys Glu His Ile Leu Ala Met Leu Lys Asp Gln Gln Gly
    130                 135                 140
Glu Thr Val Glu Val Pro Arg His Leu His His Val Val Ala Asp Asn
145                 150                 155                 160
Gly Ala Phe Phe Arg Arg Leu Arg Asn Asp Tyr Arg Val Thr Val Asp
                165                 170                 175
His Ala Gly Gln Gln Val Pro Leu Lys Pro Ala Ser Glu Glu Ser Arg
            180                 185                 190
Ala Thr Thr Asn Gly Ala Ser Ser Leu Pro Leu Ile Thr Asp Glu Pro
        195                 200                 205
Ser Asp Ser Val Asp Ala His Ser Trp Lys Val Val Asp His Ser Asp
    210                 215                 220
Ala Ser Gln Asp Ala Thr Gln Pro Ala Thr Ile Pro Trp Val Leu Ile
225                 230                 235                 240
Gly Ser Ser Asp Asn Val Ala Arg Ala Lys Ser Ala Leu Glu Lys Ala
                245                 250                 255
Ile Ala Ser Ala Ser Gln Gln Thr Ser Thr Gly Tyr Leu Ile Leu Pro
            260                 265                 270
Asp Pro Lys Thr Tyr Arg Phe Val Ile Gly Gln Gly Gly Ser Gln Ile
        275                 280                 285
Asn Thr Ile Arg Lys Gln Thr Gly Cys Arg Ile Asn Val Pro Lys Asp
    290                 295                 300
Gln Ala Arg Gly Glu Ala Ile Glu Ile Lys Gly Ser Lys Asp Gly Leu
```

```
305                 310                 315                 320
Glu Lys Ala Lys Glu Met Ile Leu Asp Ala Val Arg Ala Gly Leu Asn
                325                 330                 335
Gly Gly Ser Arg
            340

<210> 31890
<211> 77
<212> PRT
<213> A.fumigatus

<400> 31890
Ala Ser Glu Val Val Pro Ile Ser Pro Cys His Pro Glu Leu Asn Pro
1               5                   10                  15
Asp Thr Leu Leu Thr Asn Phe Gln Glu Leu Lys Phe Gly Val Glu Ala
            20                  25                  30
Arg Ala Gln Leu Leu Lys Gly Val Asp Thr Leu Ala Lys Ala Val Thr
        35                  40                  45
Ser Thr Leu Gly Pro Lys Gly Arg Asn Val Leu Ile Glu Ser Pro Tyr
    50                  55                  60
Gly Ser Pro Lys Ile Thr Lys Gly Thr Phe Asp Ser Ser
65                  70                  75

<210> 31891
<211> 518
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (49),(287)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31891
Leu Lys Ile Asp Gly Val Ser Val Ala Lys Ala Ile Thr Leu Gln Asp
1               5                   10                  15
Lys Phe Glu Asn Leu Gly Ala Arg Phe Leu Gln Asp Val Ala Ser Lys
            20                  25                  30
Thr Asn Glu Ile Ala Gly Asp Gly Thr Thr Thr Val Thr Val Leu Ala
        35                  40                  45
Xaa Ala Ile Phe Phe Glu Thr Val Lys Asn Val Ala Ala Gly Cys Asn
    50                  55                  60
Pro Met Asp Leu Arg Arg Gly Ile Gln Ala Ala Val Asp Ala Val Val
65                  70                  75                  80
Asp Tyr Leu Gln Lys Asn Lys Arg Asp Ile Thr Thr Gly Glu Glu Ile
                85                  90                  95
Ala Gln Val Ala Thr Ile Ser Ala Asn Gly Asp Thr His Ile Gly Lys
            100                 105                 110
Leu Ile Ser Thr Ala Met Glu Arg Val Gly Lys Glu Gly Val Ile Thr
        115                 120                 125
Val Lys Glu Gly Lys Thr Ile Glu Asp Glu Leu Glu Val Thr Glu Gly
    130                 135                 140
Met Arg Phe Asp Arg Gly Tyr Thr Ser Pro Tyr Phe Ile Thr Asp Thr
145                 150                 155                 160
Lys Ser Gln Lys Val Glu Phe Glu Lys Pro Leu Ile Leu Leu Ser Glu
                165                 170                 175
```

```
Lys Lys Ile Ser Ala Val Gln Asp Ile Ile Pro Ala Leu Glu Ala Ser
            180                 185                 190
Thr Thr Leu Arg Arg Pro Leu Val Ile Ile Ala Glu Asp Ile Glu Gly
        195                 200                 205
Glu Ala Leu Ala Val Cys Ile Leu Asn Lys Leu Arg Gly Gln Leu Gln
    210                 215                 220
Val Ala Ala Val Lys Ala Pro Gly Phe Gly Asp Asn Arg Lys Ser Ile
225                 230                 235                 240
Leu Gly Asp Leu Ala Val Leu Thr Asn Gly Thr Val Phe Thr Asp Glu
                245                 250                 255
Leu Asp Ile Lys Leu Glu Lys Leu Thr Pro Asp Met Leu Gly Ser Thr
            260                 265                 270
Gly Ala Ile Thr Ile Thr Lys Glu Asp Thr Ile Ile Leu Asn Xaa Glu
        275                 280                 285
Gly Ser Lys Asp Ala Ile Ala Gln Arg Cys Glu Gln Ile Arg Gly Val
    290                 295                 300
Met Ala Asp Pro Ser Thr Ser Glu Tyr Glu Lys Glu Lys Leu Gln Glu
305                 310                 315                 320
Arg Leu Ala Lys Leu Ser Gly Gly Val Ala Val Ile Lys Val Gly Gly
                325                 330                 335
Ala Ser Glu Val Glu Val Gly Glu Lys Lys Asp Arg Val Val Asp Ala
            340                 345                 350
Leu Asn Ala Thr Arg Ala Ala Val Glu Glu Gly Ile Leu Pro Gly Gly
        355                 360                 365
Gly Thr Ala Leu Leu Lys Ala Ala Ala Asn Gly Leu Asp Asn Val Lys
    370                 375                 380
Pro Glu Asn Phe Asp Gln Gln Leu Gly Val Ser Ile Ile Lys Asn Ala
385                 390                 395                 400
Ile Thr Arg Pro Ala Arg Thr Ile Val Glu Asn Thr Gly Leu Glu Gly
                405                 410                 415
Ser Val Ile Val Cys Lys Leu Thr Asp Glu Phe Ala Lys Asp Phe Asn
            420                 425                 430
Arg Gly Phe Asp Ser Ser Lys Gly Glu Tyr Val Tyr Met Ile Ser Ser
        435                 440                 445
Gly Ile Leu Asp Pro Leu Lys Val Val Arg Thr Ala Leu Leu Asp Thr
    450                 455                 460
Ser Gly Val Ala Ser Leu Leu Gly Thr Thr Glu Val Ala Ile Val Glu
465                 470                 475                 480
Ala Pro Asp Glu Lys Gly Pro Ala Ala Pro Ala Trp Val Val Trp Val
                485                 490                 495
Val Trp Ala Ala Trp Val Ala Ala Cys Ser Asn Trp Phe His Trp Pro
            500                 505                 510
Trp Tyr His Ser Leu Ser
        515
```

<210> 31892
<211> 195
<212> PRT
<213> A.fumigatus

<400> 31892

```
Lys Ala Met Val Pro Arg Pro Met Glu Pro Val Arg Thr Cys Arg His
1               5                   10                  15
Pro Cys Arg Pro Tyr His Pro Tyr His Pro Cys Arg Ser Ser Gly Ala
            20                  25                  30
Phe Leu Val Arg Gly Leu Asn Asn Ser Asp Leu Ser Gly Thr Glu Gln
```

```
        35                  40                  45
Gly Gly Asp Thr Ala Gly Val Glu Gln Ser Gly Ala Asn Asn Leu Glu
    50                  55                  60
Gly Ile Glu Asp Thr Ala Gly Asp His Val Asp Val Leu Ala Leu Gly
65                  70                  75                  80
Ala Val Glu Thr Ala Val Glu Val Leu Gly Glu Leu Val Gly Gln Leu
                85                  90                  95
Ala Asp Asn Asp Ala Ala Leu Glu Ala Gly Val Leu Asn Asn Gly Ala
            100                 105                 110
Ser Gly Ala Gly Asp Gly Ile Leu Asp Asp Ala His Thr Glu Leu Leu
        115                 120                 125
Val Glu Val Leu Gly Leu Asp Ile Val Lys Ala Val Gly Gly Gly Leu
    130                 135                 140
Glu Lys Gly Gly Thr Thr Thr Gly Glu Asp Thr Leu Leu Asn Ser Ser
145                 150                 155                 160
Thr Gly Ser Ile Glu Ser Ile Asp Asn Thr Val Phe Phe Leu Thr Asp
                165                 170                 175
Leu Asn Leu Gly Gly Thr Thr Asp Leu Asp Asp Gly Asn Thr Ala Arg
            180                 185                 190
Glu Leu Ser
        195

<210> 31893
<211> 320
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (35),(273)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31893
Thr Leu Leu Glu Leu Leu Leu Leu Val Phe Gly Gly Ala Gly Val Arg
1               5                   10                  15
His Asp Thr Ala Asn Leu Leu Ala Ala Leu Gly Asn Gly Val Leu Ala
            20                  25                  30
Ala Leu Xaa Val Gln Asp Asp Gly Val Leu Leu Gly Asp Gly Asp Gly
        35                  40                  45
Ala Gly Gly Thr Lys His Ile Gly Gly Lys Leu Leu Glu Phe Asp Val
    50                  55                  60
Glu Leu Ile Ser Glu Asp Gly Thr Val Gly Lys Asp Gly Lys Ile Ala
65                  70                  75                  80
Gln Asp Ala Leu Ala Val Val Thr Glu Ser Arg Ser Leu Asp Ser Ser
                85                  90                  95
Asp Leu Gln Leu Ala Thr Lys Leu Val Gln Asn Ala Asp Gly Glu Ser
            100                 105                 110
Leu Thr Leu Asn Val Leu Cys Asp Asn Asn Gln Gly Ala Ala Glu Gly
        115                 120                 125
Gly Gly Gly Leu Lys Gly Gly Asp Asp Val Leu Asn Gly Arg Asp Leu
    130                 135                 140
Leu Leu Arg Gln Gln Asn Gln Arg Leu Leu Glu Leu Asn Leu Leu Gly
145                 150                 155                 160
Leu Gly Ile Gly Asp Glu Val Gly Gly Gly Val Ser Thr Val Glu Ala
                165                 170                 175
His Thr Leu Ser Asp Leu Glu Leu Ile Leu Asn Gly Leu Ala Leu Leu
```

```
            180                 185                 190
Asp Ser Asp Asp Thr Leu Leu Ala Asn Thr Leu His Gly Gly Gly Asp
        195                 200                 205
Gln Leu Thr Asp Val Gly Val Thr Val Ser Gly Asp Ser Ser Asn Leu
    210                 215                 220
Ser Asp Leu Leu Thr Gly Gly Asp Val Thr Leu Val Leu Leu Glu Val
225                 230                 235                 240
Val Asp Asp Ser Ile Asn Ser Ser Leu Asp Thr Ala Ala Gln Ile His
                245                 250                 255
Gly Val Ala Ala Ser Ser Asn Ile Leu His Gly Leu Lys Lys Asn Gly
            260                 265                 270
Xaa Gly Lys Asp Gly Asn Gly Gly Gly Thr Val Thr Ser Asn Leu Val
        275                 280                 285
Gly Leu Arg Ser Asp Ile Leu Glu Glu Ala Ser Thr Glu Val Leu Glu
    290                 295                 300
Leu Val Leu Glu Ser Asp Gly Leu Gly Asn Arg Asp Thr Ile Tyr Phe
305                 310                 315                 320
```

<210> 31894
<211> 260
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (156)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31894

```
Thr Tyr Ser Pro Leu Glu Leu Ser Lys Pro Arg Leu Lys Ser Leu Ala
1               5                   10                  15
Asn Ser Ser Val Ser Leu Gln Thr Met Thr Leu Pro Ser Arg Pro Val
            20                  25                  30
Phe Ser Thr Met Val Arg Ala Gly Arg Val Met Ala Phe Leu Met Met
        35                  40                  45
Leu Thr Pro Ser Cys Trp Ser Lys Phe Ser Gly Leu Thr Leu Ser Arg
    50                  55                  60
Pro Leu Ala Ala Ala Leu Arg Arg Ala Val Pro Pro Pro Gly Arg Ile
65                  70                  75                  80
Pro Ser Ser Thr Ala Ala Arg Val Ala Leu Arg Ala Ser Thr Thr Arg
                85                  90                  95
Ser Phe Phe Ser Pro Thr Ser Thr Ser Glu Ala Pro Pro Thr Leu Met
            100                 105                 110
Thr Ala Thr Pro Pro Glu Ser Leu Ala Arg Arg Ser Trp Ser Phe Ser
        115                 120                 125
Phe Ser Tyr Ser Glu Val Leu Gly Ser Ala Met Thr Pro Arg Ile Cys
    130                 135                 140
Ser Gln Arg Trp Ala Met Ala Ser Leu Leu Pro Xaa Pro Phe Arg Met
145                 150                 155                 160
Met Val Ser Ser Leu Val Met Val Met Ala Pro Val Glu Pro Ser Ile
                165                 170                 175
Ser Gly Val Ser Phe Ser Ser Leu Met Ser Ser Ser Ser Val Lys Thr
            180                 185                 190
Val Pro Leu Val Arg Thr Ala Arg Ser Pro Arg Met Leu Leu Arg Leu
        195                 200                 205
Ser Pro Asn Pro Gly Ala Leu Thr Ala Ala Thr Cys Ser Trp Pro Arg
```

```
    210                 215                 220
Ser Leu Phe Arg Met Gln Thr Ala Arg Ala Ser Pro Ser Met Ser Ser
225                 230                 235                 240
Ala Ile Ile Thr Arg Gly Arg Arg Arg Val Val Glu Ala Ser Arg Ala
                245                 250                 255
Gly Met Met Ser
            260
```

<210> 31895
<211> 71
<212> PRT
<213> A.fumigatus

<400> 31895

```
Phe Trp Glu Glu Lys Ser Gly Lys Val Ile His Ser Pro Arg Ile Arg
1               5                   10                  15
Glu Ala Gly Ser Ala Ile Val Phe Met Pro Val Ile Gly Met Tyr Val
            20                  25                  30
Leu Lys Lys Val Val Lys Ile His Ala Leu Leu Ala Trp Gly Asn Ala
        35                  40                  45
His Leu Leu Thr Leu Leu Gly Ile Gln Met Ile Gln Gly Val Arg Asn
    50                  55                  60
Lys Val Glu Leu Leu Val Leu
65                  70
```

<210> 31896
<211> 137
<212> PRT
<213> A.fumigatus

<400> 31896

```
Pro Asp Lys Arg Arg Gly Ile Thr Asn Pro Val Ile Ala Ile Ala Gly
1               5                   10                  15
Thr Gly Trp Gly Ser Val Ser Leu Leu Lys Lys Leu Asp Thr Glu Asn
            20                  25                  30
Tyr Asn Val Val Val Ile Ser Pro Arg Asn Tyr Phe Leu Phe Thr Pro
        35                  40                  45
Leu Leu Pro Ser Cys Thr Thr Gly Gln Val Glu His Arg Ser Ile Met
    50                  55                  60
Glu Pro Ile Arg Asn Ile Leu Arg Gln Lys Lys Ala His Val Lys Phe
65                  70                  75                  80
Tyr Glu Ala Glu Ala Thr Lys Ile Asp Tyr Glu Lys Arg Val Val Tyr
                85                  90                  95
Ile Ser Asp Asp Ser Glu Ile Lys Gly Asp Ile Ser His Thr Glu Val
            100                 105                 110
Pro Phe Asp Met Leu Val Val Gly Val Gly Ala Glu Asn Ala Thr Phe
        115                 120                 125
Gly Glu Ser Arg Ala Leu Ser Ala Asn
    130                 135
```

<210> 31897
<211> 79
<212> PRT
<213> A.fumigatus

<400> 31897

```
Leu Phe Ser Pro Phe Ser Pro Phe Ser Leu Arg Leu Gly Ala Ile Lys
1               5                  10                  15
Thr Phe Asn Gly Trp Lys Phe His Val Pro Leu Gln His Gly Phe Pro
            20                  25                  30
Asn Cys His Ala Val Asn Val Ala Val Ala Gln Val Ala Phe Asp Ala
        35                  40                  45
Ile Ala Ser Pro Arg Ser Pro Val Val Thr Pro Ser Glu Ile Arg Tyr
    50                  55                  60
Phe Leu Ser Ala Val Cys Pro Ala His Leu Pro Ser Leu Leu Cys
65                  70                  75
```

<210> 31898
<211> 384
<212> PRT
<213> A.fumigatus

<400> 31898

```
Val Gln Ile Asp Arg Lys Thr Pro Val Asn Gly Val Ile Thr Gly Ile
1               5                  10                  15
Lys Gly Val Lys Glu His Ser Cys Phe Leu Lys Glu Val Gly Asp Ala
            20                  25                  30
Gln Lys Ile Arg Lys Arg Ile Met Asp Cys Val Glu Thr Ala Met Phe
        35                  40                  45
Lys Asp Gln Pro Glu Glu Glu Val Lys Arg Leu Leu His Met Val Val
    50                  55                  60
Val Gly Gly Gly Pro Thr Gly Val Glu Phe Ala Gly Glu Leu Gln Asp
65                  70                  75                  80
Phe Phe Asn Glu Asp Leu Lys Lys Trp Ile Pro Glu Ile Lys Asp Asn
                85                  90                  95
Phe His Val Thr Leu Val Glu Ala Leu Pro Asn Val Leu Pro Met Phe
            100                 105                 110
Ser Lys Gln Leu Ile Asp Tyr Thr Glu Ser Thr Phe Lys Glu Glu Ala
        115                 120                 125
Ile Thr Ile Arg Thr Lys Thr Met Val Lys Asn Val Thr Asp Lys Tyr
    130                 135                 140
Ile Glu Ala Glu Val Thr Lys Pro Asp Gly Thr Lys Glu Leu Glu Thr
145                 150                 155                 160
Ile Pro Tyr Gly Leu Leu Val Trp Ala Thr Gly Asn Ala Val Arg Asn
                165                 170                 175
Val Val Arg Asp Leu Met Asn Gln Ile Pro Ala Gln Lys Asn Ser Arg
            180                 185                 190
Arg Gly Leu Ala Val Asn Glu Tyr Leu Val Val Asn Gly Thr Glu Asn
        195                 200                 205
Val Trp Ala Val Gly Asp Cys Ala Val Thr Asn Tyr Ala Pro Thr Ala
    210                 215                 220
Gln Val Ala Ser Gln Glu Gly Ala Phe Leu Ala Arg Leu Phe Asn Thr
225                 230                 235                 240
Met Ala Lys Thr Glu Ala Ile Glu Lys Glu Leu Lys Arg Leu Ser Glu
                245                 250                 255
Ala Gln Ala Val Ala Lys Asn Glu Glu Glu Arg Asn Lys Ile Phe Asp
            260                 265                 270
Glu Ile Arg Glu Arg Gln Lys Gln Leu Arg Arg Thr Lys Gln Ile Gly
        275                 280                 285
Pro Phe Gln Tyr Ser His Gln Gly Ser Leu Ala Tyr Ile Gly Lys Glu
    290                 295                 300
Arg Ala Val Ala Asp Ile Ser Trp Leu Ser Gly Asn Ile Ala Ser Gly
```

```
305                 310                 315                 320
Gly Thr Val Thr Tyr Leu Phe Trp Arg Ser Ala Tyr Leu Ser Met Cys
                325                 330                 335
Phe Ser Ser Lys Cys Leu Leu Arg Pro Thr Asn His Lys Ile Val Pro
            340                 345                 350
Phe Pro Phe Leu Thr Ile Ser Ile Ala Arg Asn Arg Val Leu Val Ala
        355                 360                 365
Ala Asp Trp Leu Lys Ala Lys Ile Phe Gly Arg Asp Val Ser Arg Glu
    370                 375                 380
```

<210> 31899
<211> 145
<212> PRT
<213> A.fumigatus

<400> 31899

```
Val Arg Ser Arg Pro Ser Met Val Gly Ser Ser Met Phe Arg Ser Asn
1               5                   10                  15
Met Ala Ser Pro Thr Val Met Gln Leu Thr Ser Leu Ser Arg Arg Ser
            20                  25                  30
Leu Ser Thr Arg Ser Pro Ala Leu Gly Leu Arg Leu Ser Arg Pro Leu
        35                  40                  45
Arg Ser Ala Thr Ser Ser Gln Gln Cys Val Gln Arg Thr Phe Arg Arg
    50                  55                  60
Ser Tyr Ala Asp Ala Ala Pro Thr Pro Lys Pro Lys Lys Arg Phe Arg
65                  70                  75                  80
Phe Leu Arg Trp Ala Trp Arg Leu Thr Trp Leu Ser Gly Val Gly Leu
                85                  90                  95
Thr Gly Ala Leu Ile Tyr Ser Ile Tyr Glu Gln Arg His Pro Ile Glu
            100                 105                 110
Gln Ile Glu Pro Asp Pro Thr Lys Lys Thr Leu Val Ile Leu Gly Met
        115                 120                 125
Leu Gly Ser Leu Pro Cys Leu Pro Pro Ile Asp Arg Val Ala Asn Val
    130                 135                 140
Thr
145
```

<210> 31900
<211> 60
<212> PRT
<213> A.fumigatus

<400> 31900

```
Phe Ser Val Asp Lys Thr Thr Thr Ile Asn Arg Ala Pro Lys Tyr Glu
1               5                   10                  15
Val Ser Leu Gly Pro Trp Arg Trp Pro Asn Ser Ser Gln Ile Leu Met
            20                  25                  30
Thr Phe His Ile His His Glu Tyr Asn Thr Gln Leu Thr Glu Thr Asn
        35                  40                  45
Ile Leu Phe Pro Asp Thr Asn Ile Asp Ser Phe Thr
    50                  55                  60
```

<210> 31901
<211> 127
<212> PRT
<213> A.fumigatus

<400> 31901
Tyr Leu Val Arg Arg Met Pro Val Leu Arg Val Leu Cys Lys Asp Tyr
1 5 10 15
Pro Gln Arg Thr Leu Ile Leu Ala Thr Thr Asp Asp Ala Leu Val Phe
20 25 30
Lys Ala Ile Ala Thr Glu Val Asp His Ser Thr Gly Lys Lys Glu Arg
35 40 45
Asp Asn Ile His Cys Leu Val Glu Phe Cys Ser Leu Ser Ser Val Asp
50 55 60
Leu Thr Gly Tyr Arg Arg Leu Cys Asp Gly His Gly Thr Leu Gly Leu
65 70 75 80
Ile Ala Leu Asp Gly Asp Val Phe Leu Cys Val Val Thr Gly Ala Ser
85 90 95
Lys Ala Ala Thr Val Arg Pro Gly Glu Ala Val Trp Arg Ile Asp Asn
100 105 110
Val His Phe Arg Asn Ser Ser His Ser Leu Val Tyr Leu Ile Phe
115 120 125

<210> 31902
<211> 79
<212> PRT
<213> A.fumigatus

<400> 31902
Phe Pro Leu Pro Arg Leu Ser Tyr Ile Leu Thr Glu Ala Val Cys Leu
1 5 10 15
Asn His Ser Cys Asn Glu Asp Gly Leu Asn Tyr Glu Ser Glu Ser Glu
20 25 30
Phe Ala Ala Glu Glu Ser Asn Arg Gly Glu Asp Lys Glu Ile Val Thr
35 40 45
Asp His Pro Phe Leu Ala Leu Lys Lys Leu Leu Ser Asp Gly Ser Phe
50 55 60
Tyr Tyr Ser Leu Asp Phe Asp Leu Thr Asn Arg Leu Gln Asn Arg
65 70 75

<210> 31903
<211> 375
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (360),(372),(373),(374)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31903
His Ile Val Ser Ser Asn Lys Ala Asp Ala Phe Asp Met Gly Ser Leu
1 5 10 15
Asp Glu Asp Met Leu Trp Asn Ser Tyr Met Ile Asn Pro Leu Leu Ser
20 25 30
Leu Arg Ser His Leu Ser Arg Leu Gly Lys Leu His Leu Asp Met Ser
35 40 45
Arg Met Leu Thr Tyr Val Ile Arg Gly Phe Cys Ser Thr Leu Thr Ile
50 55 60
Pro Thr Ser Arg Pro Ile Val Gln Gln Ala Pro Thr Arg Leu Pro Pro

65 70 75 80
Thr Leu Thr Val Ile Ser Arg Gln Ser Ser Arg Arg Ala Gly Thr Arg
85 90 95
Phe Asn Ser Arg Gly Ile Asp Asp Asp Gly Asn Val Ala Asn Phe Val
100 105 110
Glu Thr Glu Thr Val Leu Trp Ile Pro Pro Cys Phe Thr Phe Ser Tyr
115 120 125
Val Gln Ile Arg Gly Ser Val Pro Val Phe Trp Glu Gln Ala Pro Gly
130 135 140
Phe Phe Pro Gly Gln Gln Lys Ile Glu Val Ile Arg Ser Cys Glu Ala
145 150 155 160
Thr Lys His Ala Phe Asp Lys His Phe Glu Ser Leu Glu Ser Arg Tyr
165 170 175
Gly Ala Val His Ile Val Asn Leu Leu Ser Ser Leu Lys Pro Gly Glu
180 185 190
Val Glu Leu Ser Thr Arg Phe Asn Glu Leu Val Ser Arg Ser Pro Leu
195 200 205
Asn Gln Lys Ala Asn Ala Asp Ala Ser Ser Asn His Met Leu Leu Glu
210 215 220
Met Thr Glu Phe Asp Phe His Ala Glu Ala Arg Gly Pro Leu Gly Tyr
225 230 235 240
Gly Ala Ser Asp Gln Ile Lys Asp Val Ile Leu His Ser Val Asp Gly
245 250 255
Phe Gly Tyr Phe Leu Ser Glu Ser Thr Cys Tyr Gly Asn Glu Ala Lys
260 265 270
Thr Ser Ser Val Val Leu Gln Gln Glu Gly Val Phe Arg Thr Asn Cys
275 280 285
Leu Asp Cys Leu Asp Arg Thr Asn Leu Val Gln Thr Ile Ile Ser Thr
290 295 300
Met Ala Leu Glu Ser Phe Phe Arg Gln Gln Gly Ala His Ile Asp Pro
305 310 315 320
Glu Leu Trp Leu Arg His Ser Thr Leu Trp Ala Asp Asn Gly Asp Ala
325 330 335
Leu Ser Arg Ile Tyr Ala Gly Thr Gly Ala Leu Lys Ser Ser Phe Ser
340 345 350
Arg His Gly Ser Ser Leu Ser Xaa Phe Pro Leu Ala Pro Arg Ile Asn
355 360 365
Lys Tyr Val Xaa Xaa Xaa Asn
370 375

<210> 31904
<211> 451
<212> PRT
<213> A.fumigatus

<400> 31904
Ile Ala Asn His Arg Gly Gln Phe Ala Ile Ala Leu Gly Pro Leu Phe
1 5 10 15
Val Leu Phe Leu Leu Ala Ala Ala Tyr Tyr Arg Ala Ser Ala Arg Asn
20 25 30
Leu Lys Arg His Asp Ser Val Leu Arg Ser Thr Val Phe Ser Arg Phe
35 40 45
Gly Glu Ala Ile Thr Gly Val Ala Ser Ile Gln Ala Tyr Arg Met Glu
50 55 60
Gly Tyr Phe Gln Arg Asn Leu His Glu Ser Ile Asp Ser Met Asn Gly
65 70 75 80

```
Ala Tyr Phe Leu Thr Phe Ser Asn Gln Arg Trp Leu Ser Ile Arg Leu
                 85                  90                  95
Asp Ala Ile Gly Ser Leu Met Ile Leu Val Val Gly Ile Leu Val Val
            100                 105                 110
Thr Ser Arg Phe Asn Val Gly Pro Ser Ile Ser Gly Leu Val Leu Ser
        115                 120                 125
Tyr Val Leu Asn Ile Thr Leu Ser Leu Gln Phe Thr Ile Arg Gln Phe
    130                 135                 140
Ala Glu Val Gly Asn Asn Met Asn Ala Ala Glu Arg Ile His Tyr Tyr
145                 150                 155                 160
Gly Thr Ser Leu Asp Gln Glu Ala Pro Leu Gln Leu Ala Glu Val Pro
                165                 170                 175
Pro Gly Trp Pro Glu Lys Gly Arg Ile Thr Phe Ser Asp Val Gln Met
            180                 185                 190
Arg Tyr Arg Asp Gly Leu Pro Leu Val Leu Lys Gly Leu Thr Met Asp
        195                 200                 205
Val Arg Gly Gly Glu Arg Ile Gly Ile Val Gly Arg Thr Gly Ala Gly
    210                 215                 220
Lys Ser Ser Ile Met Ala Ala Leu Phe Arg Leu Thr Glu Leu Ser Gly
225                 230                 235                 240
Gly Ser Ile Lys Ile Asp Asp Ile Asp Ile Ala Thr Val Gly Leu Arg
                245                 250                 255
Asp Leu Arg Thr Arg Leu Ala Ile Ile Pro Gln Asp Pro Thr Leu Phe
            260                 265                 270
Arg Gly Thr Ile Arg Ser Asn Leu Asp Pro Phe Asn Glu His Thr Asp
        275                 280                 285
Leu Glu Leu Trp Ala Ala Leu Arg Lys Ala His Leu Val Gly Gln Glu
    290                 295                 300
Leu Pro Glu Asp Glu Ser Gln Asp Gly Thr Leu Thr Pro Ser Ser Met
305                 310                 315                 320
Asn Glu Lys Gln Gln Thr Val Gln Arg Leu His Leu Asp Thr Ile Val
                325                 330                 335
Glu Glu Glu Gly His Asn Phe Ser Leu Gly Gln Arg Gln Leu Met Ala
            340                 345                 350
Leu Ala Arg Ala Leu Val Arg Asp Ala Arg Ile Ile Ile Cys Asp Glu
        355                 360                 365
Ala Thr Ser Ser Val Asp Phe Glu Thr Asp Gln Lys Val Gln Glu Thr
    370                 375                 380
Met Ala Gln Gly Phe Gln Gly Lys Thr Leu Leu Cys Ile Ala His Arg
385                 390                 395                 400
Leu Arg Thr Ile Ile Asn Tyr Asp Arg Ile Cys Val Met Asp Gln Gly
                405                 410                 415
Gln Ile Ala Glu Phe Asp Thr Pro Leu Ala Leu Trp Glu Lys Pro Asp
            420                 425                 430
Gly Ile Phe Arg Ser Met Cys Asp Gln Ser Gly Ile Thr Arg Glu Asp
        435                 440                 445
Phe Glu Gly
    450
```

<210> 31905
<211> 195
<212> PRT
<213> A.fumigatus

<400> 31905
Arg Cys Val Ser Thr Tyr Tyr Glu Ile Gln Trp Arg Arg Val Thr Gly

```
1               5                   10                  15
Arg Thr Ser Thr Gln Gln Gln Thr Glu Arg Ile Arg Ala Thr Thr Pro
            20                  25                  30
Val Ser Ser Asn Ser Trp Ser Cys Cys Thr Ser Thr Arg His Glu Arg
        35                  40                  45
Thr Pro Gly Asn Val Thr Ala Leu Gln Ala Ala Val Ser Arg Trp Asn
    50                  55                  60
Ile Asp Ile Val Arg Leu Leu Leu Glu Trp Gly Ala Asp Val Asn Ala
65                  70                  75                  80
Pro Ala Asn Lys His Lys His Gly Gly Lys Pro Ala Leu Gln Thr Ala
                85                  90                  95
Ala Pro Glu Asn His Arg Val Met Thr Asp Leu Leu Val His Gln Gly
            100                 105                 110
Ala Gly Val Asn Gly Val Pro Ser Pro Val Arg Gly Arg Thr Ala Leu
        115                 120                 125
Gln Glu Ala Ala Ser Ser Gly Tyr Val Gln Leu Ser Glu Tyr Leu Leu
    130                 135                 140
Ala His Gly Ala Asp Ala Asp Ala Leu Ala Arg Thr Phe Gly Trp Cys
145                 150                 155                 160
Tyr Ser Leu Ala Arg Gly Arg Asn Thr Arg Gln His Ser His Cys Asp
                165                 170                 175
Asp Ala Ala Ser Gly Arg Gly Arg Cys Pro Trp Ser Cys Ser Arg Glu
            180                 185                 190
Trp Gln Ala
        195
```

<210> 31906
<211> 238
<212> PRT
<213> A.fumigatus

<400> 31906

```
Ala Met Gln Ser Ser Val Leu Pro Trp Asn Pro Cys Ala Ile Val Ser
1               5                   10                  15
Trp Thr Phe Trp Ser Val Ser Lys Ser Thr Asp Glu Val Ala Ser Ser
            20                  25                  30
Gln Met Met Met Arg Ala Ser Arg Thr Arg Ala Arg Ala Lys Ala Ile
        35                  40                  45
Ser Cys Arg Trp Pro Ser Glu Lys Leu Cys Pro Ser Ser Ser Thr Met
    50                  55                  60
Val Ser Arg Cys Ser Arg Cys Thr Val Cys Cys Phe Ser Phe Ile Asp
65                  70                  75                  80
Asp Gly Val Arg Val Pro Ser Trp Asp Ser Ser Ser Gly Ser Ser Trp
                85                  90                  95
Pro Thr Arg Cys Ala Leu Arg Asn Ala Ala His Ser Ser Arg Ser Val
            100                 105                 110
Cys Ser Leu Lys Gly Ser Arg Phe Glu Arg Ile Val Pro Arg Lys Ser
        115                 120                 125
Val Gly Ser Cys Gly Ile Ile Ala Arg Arg Val Arg Arg Ser Arg Ser
    130                 135                 140
Pro Thr Val Ala Ile Ser Met Ser Ser Ile Leu Ile Leu Pro Pro Glu
145                 150                 155                 160
Ser Ser Val Arg Arg Asn Ser Ala Ala Met Met Leu Asp Leu Pro Ala
                165                 170                 175
Pro Val Arg Pro Thr Met Pro Ile Arg Ser Pro Pro Arg Thr Ser Ile
            180                 185                 190
```

Val Ser Pro Leu Ser Thr Arg Gly Ser Pro Ser Arg Tyr Arg Ile Cys
195 200 205
Thr Ser Glu Asn Val Ile Leu Pro Phe Ser Gly Gln Pro Gly Gly Thr
210 215 220
Ser Ala Asn Trp Arg Gly Ala Ser Trp Ser Lys Leu Val Pro
225 230 235

<210> 31907
<211> 123
<212> PRT
<213> A.fumigatus

<400> 31907
Ser Gly Phe Ile Gln Arg Asp Glu Pro Leu Leu Thr Val Arg Arg Arg
1 5 10 15
Lys Ile Ala Leu Tyr Ile Ala Cys Gln Ala Leu Gly Val Ala Ala Thr
20 25 30
Val Ala Ile Ser Gln Thr Ile Ala Ala Ile Gly Phe Pro Ile Leu Ile
35 40 45
Ile Ala Leu Ile Pro Phe Arg Val Trp Ile Met Pro Arg Trp Phe Ser
50 55 60
Val Glu Glu Leu Asp Val Met Asp Asp Leu Thr Ala Asn Asn Ser Ala
65 70 75 80
Val Leu Ala Ser Leu Gly Gly Pro Pro Gln Phe Pro Gly Gln Pro Asp
85 90 95
Asn Glu Met Phe Gly Leu Glu Arg Arg Tyr Ser Glu Gln Arg Phe Gly
100 105 110
Ser Thr Arg Gln Arg Ala Gly Ser Ile His Arg
115 120

<210> 31908
<211> 81
<212> PRT
<213> A.fumigatus

<400> 31908
Val Leu Ser Pro Lys Leu Ser Arg Asn Leu Ser Arg Thr His Gly Ala
1 5 10 15
Tyr Ala Tyr Val Asp His Pro Gln Pro Arg Val Phe Arg Lys Val Lys
20 25 30
Trp Thr Ser Thr Glu Tyr Leu His Ser Val Ser Asn Phe Phe Lys Asn
35 40 45
Asn Asn Asn Asn Ile Ile Ile Ile Ile Val Ile Trp Ile Thr His Asp
50 55 60
Arg Ser Asn Pro Ala Ser Cys Leu Pro Phe Gln Arg Thr Arg Leu Leu
65 70 75 80
Ser

<210> 31909
<211> 383
<212> PRT
<213> A.fumigatus

<400> 31909
Ala Ile Thr Ile Thr Ser Glu Val Lys Met Asp Arg Thr Pro Leu Ala

```
1               5                   10                  15
Gly Asp Arg Cys Leu Asp Ser Asp Leu Ile Phe Ser Ser Ser Pro Gly
            20                  25                  30
Phe Gly Thr Pro Val Arg Pro Leu Arg Lys Ser Asn Leu Asn Ala Pro
        35                  40                  45
Val Ala Arg Ser Ser Val Leu Pro Ile Leu Leu Pro Pro Ser Thr Leu
    50                  55                  60
Arg Pro Val Ala Phe Arg Thr Phe Thr Arg Lys His Asn Leu Thr Ile
65                  70                  75                  80
Ser Ser Ser Ala Leu Gln Thr Leu Ala Ser Phe Val Gly Lys His Cys
                85                  90                  95
Gly Ser Gly Trp Arg Glu Glu Gly Leu Ala Glu Arg Val Leu Asp Glu
            100                 105                 110
Val Ala Lys Gly Trp Lys Lys Ala Gly Gly Gly Val Ile Val Glu Glu
        115                 120                 125
Gly Arg Gly Ala Ser Leu Lys Ala Ile Leu Lys Ala Leu Glu Gly Asn
    130                 135                 140
Met Ser Gly Gly Arg Val Val Ala Ala Lys Pro Ser Ala Ile Arg Glu
145                 150                 155                 160
Gly Pro Ile Asp Val Asn Ala Pro Asn Cys Asp Ala Arg Arg Leu Asn
                165                 170                 175
Pro His Leu Ser Pro Asp Pro Ala Ile Asn Asn Glu Glu Leu Asp Asp
            180                 185                 190
Leu Asp Leu Ser Leu His Pro Arg Asn Trp Ile Lys Ile Val Glu Ala
        195                 200                 205
Phe Asp Met Pro Arg Leu Thr Tyr Asn Val Asp Lys Lys Tyr Phe Glu
    210                 215                 220
Leu Thr Lys Ser Lys Ala Thr Leu Phe Pro Gln Ala Ser His Lys Thr
225                 230                 235                 240
Ser Met Phe Arg Asp Arg Tyr Asn Ile Ile His Gln Arg Leu Leu Arg
                245                 250                 255
Asn Glu Thr Phe Gln Ser Ser Leu Ser Tyr Leu Thr Gly His Ser Met
            260                 265                 270
Lys Arg Ser Ser Ser Ser Phe Ala Pro Thr Gln Cys Tyr Arg Leu Thr
        275                 280                 285
Pro Ile Ala Asn Leu Leu Gly Arg Ser Gly Thr Ser His Leu Leu Leu
    290                 295                 300
Gly Leu Leu Ser Ile Ser Pro Ala Gly Asp Leu Ser Leu Val Asp Leu
305                 310                 315                 320
Thr Gly Ser Val Ala Leu Asp Leu Ser His Ala Arg Thr Ile Pro Asp
                325                 330                 335
Asp Gly Ala Trp Phe Ala Pro Gly Met Val Val Ile Val Asp Gly Val
            340                 345                 350
Tyr Glu Glu Glu Gly Ser Val Arg Gly Ser Val Leu Gly Gly His Ser
        355                 360                 365
Gly Val Gly Gly Ala Val Gly Gly Arg Phe Val Gly Val Ser Ile
    370                 375                 380
```

<210> 31910
<211> 699
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (689)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31910

```
Val Val Phe Lys Gly Asp Leu Asn Glu Asp Leu Arg Cys Leu His Arg
1               5                  10                  15
Phe Val Thr Ser Met Asp Asn Arg Gly Ser Phe Phe Phe Leu Leu Ile
            20                  25                  30
Val Phe Tyr Leu Leu Leu Ser Ser Gln Ser Arg Pro Pro Leu Leu Asp
        35                  40                  45
Gln Asp Arg Glu Arg Gln Arg Glu Val Ala Arg Glu Arg Gly Ala Leu
    50                  55                  60
Arg Leu Leu Asn Glu Ser Lys Tyr Gly Asp Phe Asp Pro Pro Gly Asp
65                  70                  75                  80
Lys Trp Leu Pro Phe Ala Gly Thr Arg Lys Asn Asp Ser Tyr Ala Trp
                85                  90                  95
Gly Ile Leu Pro Glu Ala Gln Gly Arg Ala Arg His Gln Leu Arg Ser
            100                 105                 110
Ala Ile Ser Asn Ala Gly Leu Glu Pro Pro Arg Ser Leu Glu Asp Pro
        115                 120                 125
Asp Ala Leu Pro Ser Leu Asn Leu Thr Gln Leu Leu Leu Pro Val Tyr
    130                 135                 140
Arg Asn Ala Thr Gly Lys Leu Arg Gly Asp Trp Val Arg Arg Lys Leu
145                 150                 155                 160
Asn Lys Glu Tyr Pro Lys Leu Asn Thr Thr Ala Ile Ala Leu Glu His
                165                 170                 175
Gly Tyr Phe Thr His Glu Phe Gly Leu Asn Ile Thr Gly Ser Ser Gly
            180                 185                 190
Thr Phe Tyr Leu Asp Leu Arg Glu Gly Gly Gly Glu Glu Leu Arg Val
        195                 200                 205
Asp Ser Gly Gln Val Arg Glu Ile Arg Ala Thr Leu Ala Val Glu Ser
    210                 215                 220
Asn Asp Phe Trp Gly Asn Thr Trp Tyr Ile Ser Leu Phe Gly Val His
225                 230                 235                 240
Phe Pro Glu Thr Gly Ala Ile Ile Leu Ser Ser Asn Ser Glu Lys Phe
                245                 250                 255
Glu Gly Leu Phe Val Leu Pro His Leu Ala Phe Ser Ser Asp Ala Tyr
            260                 265                 270
Glu Leu Ser His Gln Leu Leu Leu Asn Ser Leu Ser Asp Thr Leu Ser
        275                 280                 285
Glu Lys Glu Asn Arg Pro Pro Thr Leu Phe Pro Trp Ser Ser Leu Ile
    290                 295                 300
Gly Ser Glu Gln Val Glu Phe Pro Ala Pro Lys Cys Glu His Ile Ile
305                 310                 315                 320
Tyr Leu Gln Gln His Pro Val Thr Ile His Asp Tyr Leu Ala Asp Lys
                325                 330                 335
Pro Val Val Asp Gln Ile Glu Glu Glu Leu Arg Phe Pro Ile Gly Ala
            340                 345                 350
Pro Val Pro Pro Ala Pro Leu Met Val Met Ser Ala Val Val Phe Ser
        355                 360                 365
Pro Asp Cys Gly Tyr Ile Leu Glu Thr Lys Gly Thr Pro Asp Phe Pro
    370                 375                 380
Pro Ser Glu Gly Leu Tyr Leu Thr Gly Pro Lys Ile Glu Glu Tyr Asp
385                 390                 395                 400
Lys Tyr Ser Ala Arg Leu Val Phe Ile Ile Cys Gly Val Phe Ala Ala
                405                 410                 415
Gln Ile Thr Leu Leu Leu Arg Gln Ile Lys Glu Ala Ser Thr Pro Ser
```

```
            420                 425                 430
Thr Arg Ser Arg Ile Ser Phe Tyr Thr Ile Ala Leu Met Ala Phe Gly
        435                 440                 445
Asp Ala Phe Val Leu Ile Phe Ile Leu Leu Glu Leu Tyr Pro Ala Val
    450                 455                 460
Ser Phe Leu Val Met Ala Thr Ala Ala Phe Leu Thr Phe Leu Ser Val
465                 470                 475                 480
Ser Tyr Ile Gly Met Lys Phe Met Met Glu Ile Trp Ala Val Gln Ala
                485                 490                 495
Pro Glu Arg Arg Glu Gln Glu Arg Arg Ser Asn Pro Pro Ala Ser Thr
            500                 505                 510
Pro Arg Ser Thr Gly Leu Pro Leu Pro Ala Thr Ser Ala Pro Val Arg
        515                 520                 525
Asp Ser Gly Ala Thr Pro Ile Ile Leu Thr Pro Asp Gln Asp Pro Pro
    530                 535                 540
Ala Glu Glu Asp Asp Gln Pro Thr Asn Arg Gly Thr Thr Ser Ala Ala
545                 550                 555                 560
Gln Glu Thr Arg Asn Asp Val Gly Ala Met Tyr Ala Arg Phe Tyr Phe
                565                 570                 575
Val Leu Phe Val Met Leu Ile Ile Ser Ile Trp Ser Phe Leu Trp Pro
            580                 585                 590
Asn Arg Leu Gly Ala Leu Tyr Ala Arg Ala Leu Ala Phe Val Tyr Leu
        595                 600                 605
Ser Phe Trp Thr Pro Gln Ile Gly Arg Asn Ile Ile Arg Asn Cys Arg
    610                 615                 620
Lys Ala Leu Arg Trp Asp Phe Val Ile Gly Gln Ser Ile Leu Arg Leu
625                 630                 635                 640
Phe Pro Phe Val Tyr Phe Leu Thr Val Arg Gly Asn Val Leu Tyr Ile
                645                 650                 655
His Pro Asp Asn Thr Thr Ala Phe Ala Leu Ala Gly Trp Val Trp Ile
            660                 665                 670
Gln Val Trp Val Leu Ala Thr Gln Asp Ile Leu Arg Pro Arg Phe Phe
        675                 680                 685
Xaa Pro Arg Gly Trp Ala Pro Ala Ala Tyr Asp
    690                 695
```

<210> 31911
<211> 338
<212> PRT
<213> A.fumigatus

<400> 31911

```
Asp Phe Arg Val Ser Gly Thr Phe Ser Asn Gly Phe Pro Gly Pro Val
1               5                   10                  15
Glu Gln Ile Leu Glu His Gly Arg Glu Thr Met Asp Asp Glu Thr Lys
            20                  25                  30
Arg Val Val Thr Lys Leu His Thr Ile Leu Arg Pro Tyr Ile Leu Arg
        35                  40                  45
Arg Leu Lys Ala Asp Val Glu Lys Gln Met Pro Ala Lys Tyr Glu His
    50                  55                  60
Val Val Tyr Cys Arg Leu Ser Lys Arg Gln Arg Phe Leu Tyr Asp Gly
65                  70                  75                  80
Phe Met Ser Met Ala Gln Thr Lys Glu Thr Leu Ala Ser Gly Asn Tyr
                85                  90                  95
Leu Ser Ile Ile Asn Cys Leu Met Gln Leu Arg Lys Val Cys Asn His
            100                 105                 110
```

```
Pro Asp Leu Phe Glu Thr Arg Gln Ile Ser Thr Ser Phe Val Met His
        115                 120                 125
His Ser Val Ala Thr Glu Tyr Ala Ser Lys Glu Gln Leu Val Arg Arg
    130                 135                 140
Arg Leu Leu Tyr Glu His Pro Leu Thr Lys Leu Asp Leu Asp Phe Leu
145                 150                 155                 160
Asn Leu Val Pro Ile Ser Arg Glu Asp Ile Ser Arg Arg Leu Ala Asp
                165                 170                 175
Asp Ser Thr Arg Leu Met Ala Tyr Gly Pro Phe Asn Ile Leu Arg Glu
            180                 185                 190
Arg Gln Tyr Lys Arg Thr Asn Trp Gln Met Met Phe Asp Gly Ser Thr
        195                 200                 205
Val Gln Ser Thr Leu Glu Ala Leu Glu Asn Asp Ala Arg Lys Arg Arg
    210                 215                 220
Met Ala Glu Leu Glu Arg Cys Leu Tyr Phe Glu Ser Lys Arg His Gly
225                 230                 235                 240
Arg Arg Pro Val Tyr Gly Thr Ser Leu Val Glu Phe Leu Thr Ala Asp
                245                 250                 255
Ser Lys Gln Lys Pro Thr Leu Gly Gly Arg Pro Gln Thr Gln Ser Leu
            260                 265                 270
Ala Glu Trp Leu Ser Asn Arg Ser Ser Ile Leu Ala Ser Met Ile Leu
        275                 280                 285
Ser Ile Glu Glu Arg Ser Gln Ala Met Asp Gly Tyr Val Arg Arg Phe
    290                 295                 300
Ala Cys Val Thr Pro Ala Ala Val Ala Ser Gly Ile Thr Glu Ala Ala
305                 310                 315                 320
Leu Thr Pro Ile Glu Thr Arg Tyr Leu Thr Glu Lys Glu Arg Phe Pro
                325                 330                 335
Ser Leu
```

<210> 31912
<211> 351
<212> PRT
<213> A.fumigatus

<400> 31912

```
Pro Lys Arg Ser Val Ser Pro Pro Tyr Asp Pro Phe His Glu Ala Gln
1               5                   10                  15
Met Arg Leu Ser Ile Ala Phe Pro Asp Lys Arg Leu Leu Gln Tyr Asp
            20                  25                  30
Cys Gly Lys Leu Gln Arg Leu Asp Lys Leu Leu Arg Asp Leu Lys Ala
        35                  40                  45
Gly Gly His Arg Ala Leu Ile Phe Thr Gln Met Thr Lys Met Leu Asp
    50                  55                  60
Ile Leu Glu Gln Phe Leu Asn Ile His Gly His Arg Tyr Leu Arg Leu
65                  70                  75                  80
Asp Gly Thr Thr Lys Val Glu Gln Arg Gln Ile Leu Thr Asp Arg Phe
                85                  90                  95
Asn Asn Asp Asp Arg Ile Leu Val Phe Ile Leu Ser Ser Arg Ser Gly
            100                 105                 110
Gly Leu Gly Ile Asn Leu Thr Gly Ala Asp Thr Val Ile Phe Tyr Asp
        115                 120                 125
Leu Asp Trp Asn Pro Ala Met Asp Lys Gln Cys Gln Asp Arg Cys His
    130                 135                 140
Arg Ile Gly Gln Thr Arg Asp Val His Ile Tyr Arg Phe Val Ser Glu
```

```
145                 150                 155                 160
His Thr Ile Glu Ser Asn Ile Leu Arg Lys Ala Asn Gln Lys Arg Met
                165                 170                 175
Leu Asp Asp Val Val Ile Gln Glu Gly Glu Phe Thr Thr Asp Tyr Phe
            180                 185                 190
Thr Lys Leu Asp Val Arg Asp Met Ile Gly Glu Glu Ala Glu Ala Gln
        195                 200                 205
Asp Glu Ala Ser Ala Ala Met Asp Arg Val Leu Ser Ser Arg Val Ala
    210                 215                 220
Thr Gly Gly Ser Arg Val Phe Glu Gln Ala Glu Asp Lys Glu Asp Ile
225                 230                 235                 240
Asp Ala Ala Lys Asn Ala Gln Lys Glu Met Glu Gln Ala Asp Asn Asp
                245                 250                 255
Asp Phe Gly Asp Arg Ser Ile Ser His Thr Pro Gly Gln Val Gly Thr
            260                 265                 270
Pro Leu Ala Thr Gly Pro Gln Glu Gly Glu Thr Pro Gly Ala Gln Leu
        275                 280                 285
Ile Thr Thr Pro Gln Ile His Gly Val Asp Glu Thr Val Asp Val Glu
    290                 295                 300
Pro Gln Pro Gly His Ile Asp Asp Tyr Leu Leu Arg Phe Met Glu Trp
305                 310                 315                 320
Asn Met Lys Asp Glu Pro Leu Val Leu Pro Pro Asp Lys Thr Lys Lys
                325                 330                 335
Lys Ser Lys Lys Gly Lys Glu His Arg Leu Ser Lys Arg Arg Arg
            340                 345                 350
```

<210> 31913
<211> 1025
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3),(6),(7),(8),(9),(10),(12),(787),(790)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31913

```
Ala Leu Xaa Thr Leu Xaa Xaa Xaa Xaa Xaa Trp Xaa Ala Pro Ser Ser
1               5                   10                  15
Pro Val Val Lys Thr Met Pro Ala Asp Ala Asn Asp Ile Ser Ser Asp
            20                  25                  30
His Leu Ser Arg Cys Lys Ser Ala Ser Ser Gln Val Ser Asp Arg Ser
        35                  40                  45
Ser Ala Asp Ala Glu Ser Thr Ala Ala Gln Pro Cys Arg Leu Glu Arg
    50                  55                  60
Thr Thr Ser Phe Asn Thr Asn Thr Arg Pro Pro Ser Arg Glu Pro Val
65                  70                  75                  80
Ser Pro Ala Ser Glu Asn Ser Lys Asp Gly Gln Asn Gly Gly Ser Arg
                85                  90                  95
Ala Ala Thr Gly Asn Ala Ser Val Lys Glu Asp Lys Val Ala Glu Thr
            100                 105                 110
Lys Ala Val Glu Gln Ser Gln Thr Pro Gln Arg Ser Thr Pro Arg Ser
        115                 120                 125
Ile Thr Gly Arg Arg Asn Ser Trp Ile Ser Ser Ile Ser Ser Lys Phe
    130                 135                 140
Ser Ser Gly Ser Thr Pro Pro Ser Gln Ala Ser Met Lys Ser Pro Ser
```

```
145                 150                 155                 160
Pro Lys Ala Thr Ser Pro Met Ser Lys Leu Asp Met Pro Asn Pro Phe
                165                 170                 175
Gly Ala Ala Tyr Ser Pro Lys Asp Lys Glu Glu Glu Arg Arg Asp Glu
            180                 185                 190
His Thr Pro Leu Val Ser Thr Ser Pro Lys Gly Pro Ser Phe Leu His
        195                 200                 205
Ser Ala Leu Arg Lys Phe Ser Ser Ser Gly Lys Val Val Pro Asn Gly
    210                 215                 220
Gly Ile Cys Glu Arg Arg Val Met Asn Ile Asp His Asp Arg Asp Arg
225                 230                 235                 240
Cys Lys Ile Pro Asp Leu Asp Gln Lys Lys Leu Arg Arg Val Ala Phe
                245                 250                 255
Cys Val Asp Val Glu Ile Ala Gly Ile Ser Arg Arg Glu Ser Asp Glu
            260                 265                 270
Glu Ser Pro Thr Gly Ala Ser Asn Gln Lys Ala Lys Arg Ser Asn Ser
        275                 280                 285
Lys Ser Lys Asp Arg Asp Asp Ser Lys Arg Pro Gln Pro Asp Ile Ala
    290                 295                 300
Asp Lys Glu Lys Gly Arg Gln Glu Asn Gly Thr Ser Arg Gln His Pro
305                 310                 315                 320
Lys Pro Ser Glu Thr Pro Ser Asn Glu Ala Lys Pro Asn Gly Glu Ile
                325                 330                 335
Lys Glu Pro Thr Arg Lys Gln Glu Lys Lys Lys Arg Ser Glu Glu Glu
            340                 345                 350
Arg Arg Glu Arg Lys Glu Arg Lys Arg Arg Gln Ala Glu Ala Asn Gly
        355                 360                 365
Thr Ile Pro Leu Gln Leu Arg Ala Glu Asp His Glu Asp Asp Ala Arg
    370                 375                 380
Pro Ala Val Pro Gly Asn Pro Arg Ser Arg Thr Gln Ser His Pro Thr
385                 390                 395                 400
Thr Asp Pro Val Arg Ile Tyr Arg Arg Cys Cys Gln Leu Arg Glu Thr
                405                 410                 415
Pro Val Leu Lys Lys Ile Val Asp Glu Ile Ser Ser Pro Ser Ser Thr
            420                 425                 430
Leu Ala Glu Ser Pro Gly Thr Val Ala Val Leu Asp Leu Thr Asn Phe
        435                 440                 445
Pro Met Thr Ser Gln Asp Met Ala Thr Phe Cys Asp Trp Leu Ala Ile
    450                 455                 460
Val Pro Val Arg Lys Leu Ile Leu Glu Lys Cys Ala Leu Asn Asp Val
465                 470                 475                 480
Ser Val Arg Ala Ile Leu Ala Ala Leu Leu Ser Thr Lys Thr Ile Glu
                485                 490                 495
Gln Met Arg Gln Arg Arg Arg Arg Ala Lys Lys Thr Asp Ala Asp Pro
            500                 505                 510
Val Lys Lys Glu Asp Arg Phe Cys Val Val Glu Lys Leu Ser Leu Lys
        515                 520                 525
Asp Asn Pro Arg Ile Gly Leu Glu Gly Trp Arg His Ile Ser Val Phe
    530                 535                 540
Val His Leu Ala Asn Ser Leu Lys Ala Ile Asp Met Ser Gly Ile Pro
545                 550                 555                 560
Phe Pro Arg Met Pro Leu Ser Ala Asn Asp Phe Ala Thr Ser Leu Ser
                565                 570                 575
Thr Ser Pro Asn Pro Leu Lys Pro Val Asn Asp Val Ala Thr Ile Phe
            580                 585                 590
Ala Asn Ser Leu Ala Gln Arg Phe Gly Gly Asp His Leu Glu Glu Leu
```

595 600 605
Leu Leu Ser Glu Cys Asn Pro Thr Thr Glu Asp Val Gly Arg Ile Cys
610 615 620
Glu Ala Ala Thr Thr Leu Gly Leu Arg Arg Leu Gly Phe Ala Asn Asn
625 630 635 640
Lys Leu Thr Arg Glu Gly Leu Glu His Val Val Arg Tyr Leu Glu Ala
645 650 655
Gly Lys Cys Glu Gly Leu Asp Leu Gly Gly Asn Pro Ile Arg Asp His
660 665 670
Leu Asp Leu Ile Thr Ser Ala Leu Glu Gly Glu Phe Pro Leu Tyr Ala
675 680 685
Leu Ser Leu Ala Asp Cys Ser Leu Thr Pro Ser Val Ile His Pro Leu
690 695 700
Leu Gln Arg Leu Thr Cys Leu Tyr Asn Leu Arg Phe Ile Asp Phe Ser
705 710 715 720
His Asn Pro Asp Leu Phe Ser Ser Lys Pro Asp Ala Leu Ala Thr Phe
725 730 735
Arg Arg Phe Leu Pro Lys Met Lys Ser Leu Lys Arg Ile His Leu Ala
740 745 750
Asp Val Asn Leu Ser Ala Asp His Ala Ile Ala Leu Ala Glu Ile Leu
755 760 765
Pro Glu Cys Pro Ser Leu Cys His Leu Asn Ile Leu Glu Asn Pro Cys
770 775 780
Ile Ala Xaa Leu Ala Xaa Ala Thr Asp Pro Ala Thr Gln Glu Glu Ala
785 790 795 800
Cys Ala Val Tyr Ala Ser Leu Met Ala Ala Val Arg Val Ser Arg Thr
805 810 815
Ile Ile Ala Val Asp Ile Glu Val Pro Ser Ala Glu Asn Asn Glu Val
820 825 830
Val Lys Ala Leu Ala Ser Gln Ile Val Ala Tyr Cys Leu Gln Asn Leu
835 840 845
Glu Arg Gly Ala Ile Glu Glu Glu Leu Ser Asp Pro Ala Asp Pro Ser
850 855 860
Ser Ala Arg Ala Ala Val Pro Val Pro Val Pro Glu Ile Leu Gln His
865 870 875 880
Ile Val Gly His Gly Gly Leu Gly Asp Asp Ile Cys Glu Asp Glu Asp
885 890 895
Glu Pro Ala Pro Asp Glu Asp Tyr Val Ile Gly Gly Thr Gly Val Val
900 905 910
Lys Ala Leu Glu Val Cys Leu Gly Thr Leu His His Arg Asp Met Leu
915 920 925
Gly Asp Gln Ser Gly Pro Pro Ser Gly Thr Thr Thr Pro Arg His Arg
930 935 940
Lys Ser Arg Ser Phe Val Pro Gln Arg Pro Arg Asp Met Ser Lys Asn
945 950 955 960
Leu Leu Glu Ser Ala Arg Asn Ile Arg Thr Arg Ile Gln Ser Ala Leu
965 970 975
Val Arg Glu Asp Arg Ala Gly Asn Asp Ala Asn Tyr Arg Glu Tyr Leu
980 985 990
Ile Arg Ile Val Phe Leu Phe Ser His Asp His Ile Ser Asn Lys Arg
995 1000 1005
Ser Thr Ala Gly Ser Ser Pro Arg Gly Trp Lys Gly Arg Ala Asn Gly
1010 1015 1020
Met
1025

<210> 31914
<211> 90
<212> PRT
<213> A.fumigatus

<400> 31914
Arg Met His Asn Leu Phe Phe Arg Arg Cys Arg Val Gln Cys Ala Thr
1 5 10 15
Asp Pro Val Leu Thr Phe His Ser Tyr Asn Arg Tyr Leu Ala Val Ala
20 25 30
Ala Arg Ala Val Arg Arg Ser Leu Lys Asp Gly Pro Arg Leu Ala Ala
35 40 45
Glu Arg Arg Gly Gln Ser Glu Leu Arg Phe Ala Lys Trp Glu Val Arg
50 55 60
Ile Tyr Thr Ile Phe Val Leu Asp Cys Gly Gly Asp Gly Tyr Asn Asp
65 70 75 80
Trp Leu Tyr Ser Ala Asn Gly Phe Leu Ala
85 90

<210> 31915
<211> 88
<212> PRT
<213> A.fumigatus

<400> 31915
Trp Val Leu Thr Arg Val Gly His Glu Asp Glu Glu Met Ala Asp Val
1 5 10 15
Pro Glu Pro Pro Met Glu Glu Glu Lys Thr Ile Asp Gln Pro Pro Thr
20 25 30
Lys Glu Glu Pro Arg Glu Glu Ile Thr Val Ser Gly Gly Arg Arg Arg
35 40 45
Gly Arg Arg Lys Val Met Lys Lys Lys Thr Val Lys Asp Glu Glu Gly
50 55 60
Tyr Leu Gly Glu Asn Leu Arg Ala Leu Ser Tyr Asp Ala Leu Asn Pro
65 70 75 80
Ala Asn Leu Pro Phe Ser Arg Gln
85

<210> 31916
<211> 68
<212> PRT
<213> A.fumigatus

<400> 31916
Tyr Ile Thr Val Val Leu Gly Asp Ala Ser Asp Glu Glu Glu Pro Glu
1 5 10 15
Glu Leu Phe Pro Asp Ser Gly Lys Ser Ser Thr Ala Ser Tyr Arg Glu
20 25 30
Thr Arg Lys Glu Arg Glu Glu Lys Leu Arg Lys Met Met Glu Asp Glu
35 40 45
Asp Asp Asp Gly Thr Leu Ile Gly Ser Asn Phe His Thr Thr Leu Arg
50 55 60
Ser Asp Gly Tyr
65

<210> 31917

<211> 128
<212> PRT
<213> A.fumigatus

<400> 31917
Cys Leu Val Phe Gln Arg Arg Thr Gly Val Arg Pro Pro Pro Pro Ala
1 5 10 15
Pro Thr Pro Ala Gln Glu Ala Ala Ala Pro Ser Lys Arg Pro Ser Gln
20 25 30
Asp Glu Ala Thr Gln Lys Val Lys Ser Glu Ser Lys Lys Ala Glu His
35 40 45
Ala Ala Met Thr Ser Gln Thr Lys Ala Glu Glu Lys Pro Pro Val Lys
50 55 60
Pro Ser Glu Lys Thr Ala Pro Leu Lys Arg Glu Lys Ser Asp Leu Phe
65 70 75 80
Ser Ser Phe Ala Lys Ala Lys Ser Lys Gln Lys Lys Asp Gly Ser Ala
85 90 95
Thr Pro Ala Val Ser Gly Ala Glu Ser Val Ser Ala Ser Gln Pro Asn
100 105 110
Ile Val Ala Ala Arg Ser Gln Leu Leu Met Lys Leu Pro Gly Arg Ala
115 120 125

<210> 31918
<211> 563
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (40),(51)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31918
Arg Asp Arg His Cys Gly Ala Arg Lys Tyr Ala Thr Tyr Arg Ser Val
1 5 10 15
Asn Ile Arg Gln Thr Pro Ile Arg Lys Arg Gly Phe Pro Glu Ser Cys
20 25 30
Ser Pro Ile Thr Phe Gly Asp Xaa Glu Glu Trp Glu Thr Leu Gln Asn
35 40 45
Leu Val Xaa Phe Met Leu His Cys Arg Tyr Gly Ser Leu Ile Thr Ser
50 55 60
Asn Gly Met Pro Leu Arg Met Gln Gly Leu Leu Thr Thr Thr Asp Asp
65 70 75 80
Ile Tyr Arg Phe Ser Leu Phe Ile Leu Ile Ile Tyr Cys Val Lys Lys
85 90 95
Tyr Tyr Ala Pro Phe Arg Asp Arg Trp Leu Pro Leu Ser Pro Ala Gly
100 105 110
Trp His Tyr Val Val Ala Gly Leu Leu Arg Glu Asn Gln Phe Glu Leu
115 120 125
Ala Leu Asp His Ile Ala His Met Glu Arg Lys Glu Ile Met Val Glu
130 135 140
Asn Trp Leu His Ser Leu Leu Ile Tyr Asn Leu Cys Asp Ile Gly Asp
145 150 155 160
Phe Asp Glu Val Leu Arg Gln Met Arg Lys Arg Thr Ser Gln Gly His
165 170 175
Asp Met Thr Thr Glu Leu Trp Leu Tyr Val Leu Asp Val Ala Val Ala

```
            180                 185                 190
Ala Ser His Leu Glu Thr Thr Arg Tyr Val Trp Thr Gln Met Val Gln
        195                 200                 205
Leu Gly Tyr Leu Gln Pro Ser Arg Val Leu Cys Ser Asp Thr Leu Thr
    210                 215                 220
Val Ala Ala Glu Lys Gly Asp Thr Lys Leu Ala Ser Leu Val Ile Arg
225                 230                 235                 240
Phe Leu Ser Glu Ser Asp Ile Pro Leu Ile Leu Gln Asp Tyr Glu Lys
                245                 250                 255
Thr Val Glu Ala His Val Lys Ser Gly Lys Leu Ser Ser Ala Phe Glu
            260                 265                 270
Ile Leu Cys Lys Met His Lys Ala Gly Ile Lys Leu Glu His Ser Ser
        275                 280                 285
Thr Arg Ala Ile Phe Asn Tyr Met Val Gln Thr Arg Thr Ser Pro Arg
    290                 295                 300
Gln Ala Trp Ala Ile Leu Lys Lys Leu Lys Ser Leu Lys Tyr Pro Val
305                 310                 315                 320
Pro Met Glu Cys Ala His Val Val Ile Glu Leu Cys Asp Tyr Glu Ser
                325                 330                 335
Phe Asn Asp Pro Phe Ala Val Asp Glu Gly Ile Ser Leu Tyr Gln Glu
            340                 345                 350
Leu Tyr Thr Leu Cys Pro Gly Lys Ala Asp Val Ser Ile Tyr Asn Thr
        355                 360                 365
Leu Leu Gly Met Ala Arg Arg Ala Lys Asn Ile Gln Ala Gly Met Phe
    370                 375                 380
Ala Val Lys Glu Met Ser Ser Leu Gly Val Ile Pro Asn Asp Lys Thr
385                 390                 395                 400
Phe Glu His Leu Ile Met Met Cys Leu Asp Ala Gly Asn Phe Glu Ser
                405                 410                 415
Ala Tyr Arg Tyr Tyr Gln Asp Leu Val Ala Arg Gly Phe Arg Pro Asp
            420                 425                 430
Ala Tyr Thr Arg Gln Gln Ile Lys Ser Val Cys Ser Glu Ser Asn Asp
        435                 440                 445
Glu Phe Ala Ile Gln Leu Arg Asn Asp Pro Gln Met Gln Asp Asp Pro
    450                 455                 460
Ala Asp Asp Leu Ile Gln Arg Asn Glu Gly Ala Ser Asp Gln Ser Ala
465                 470                 475                 480
Ser Ile Arg Lys Ile Gly Ser Glu Thr His Ser Arg Tyr Ala Lys Arg
                485                 490                 495
Ser Glu Arg Arg Met Trp Glu Pro Pro Met Arg Ile Leu Leu Ser Lys
            500                 505                 510
Glu Ala Arg Arg Ala Ala Ser Lys Glu Arg Arg Lys Arg Lys Arg Arg
        515                 520                 525
Arg Leu Ala Met Ala Lys Ala Gln Glu Glu Glu Gly Trp Met Asp Tyr
    530                 535                 540
Glu Pro Gly Gly Leu Val Pro Glu Asp Gln Leu Lys Pro Asp Glu Thr
545                 550                 555                 560
Gln Thr Ser
```

<210> 31919
<211> 156
<212> PRT
<213> A.fumigatus

<400> 31919

```
Met Ala Trp Leu Thr Met Arg Ala Glu Ile Leu Asn Tyr Leu Leu Ala
1               5                  10                  15
Thr Leu Thr Ala Gln Ser Ala Ala Pro Leu Ser Ala Glu Gln Ile Ala
            20                  25                  30
Ala Val Val Asn His Arg Asn His Ser Gly Asn Thr Pro Leu His Trp
        35                  40                  45
Ala Ala Leu Asn Thr His Leu Gly Cys Val Lys Ala Leu Val Glu Ala
    50                  55                  60
Gly Ala Asp Ile Gly Val Lys Asn Asp Ala Gly Leu Asp Ala Ile Phe
65                  70                  75                  80
Leu Ala Glu Arg Thr Ala Trp Ser Thr Glu Glu Glu Gly Lys Glu Val
                85                  90                  95
Pro Ala Glu Glu Glu Gly Ala Gly Lys Met Ser Lys Gly Arg Gln Val
            100                 105                 110
Val Glu Trp Leu Leu Ser Ser Asp Lys Ala Gly Asp Leu Glu Glu Gly
        115                 120                 125
Leu Ser Val Ser Ala Gly Val Gly Ala Glu Gly Ser Ala Ser Gly Ser
    130                 135                 140
Gly Ser Gly Glu Thr Met Asp Val Asp Glu Lys Asn
145                 150                 155
```

<210> 31920
<211> 108
<212> PRT
<213> A.fumigatus

<400> 31920

```
Gln His Gln Gly Asn Leu Val Leu Arg Ser Cys Ser Tyr Ser Lys Pro
1               5                  10                  15
Arg Glu Ala Gln Cys Lys Met Ser Thr Ser Thr Pro Val Lys Leu Ser
            20                  25                  30
Phe Glu Ala Ile Asp Asp Leu Ile Tyr Asp Ala Arg Ala Gly Asp Leu
        35                  40                  45
Glu Ala Leu Lys Ala Asp Leu Ala Thr Gln Ser Lys Glu His Asn Cys
    50                  55                  60
Pro Glu Ala Trp Ile Ile Ala Ser Ala Ile Asp Ala Glu Pro Glu Ala
65                  70                  75                  80
Glu Gly Gly Thr Gly Ser Cys Leu Leu His Phe Pro Ala Ala Asn Gly
                85                  90                  95
Asn Ala Gly Thr Leu Thr Leu Asp Ser Thr Arg Leu
            100                 105
```

<210> 31921
<211> 519
<212> PRT
<213> A.fumigatus

<400> 31921

```
Thr Asn Val Arg Tyr Val Asp Arg Trp Arg His Phe Ser Arg Arg Pro
1               5                  10                  15
Arg Ile Ser Tyr Ala Ala Ser Ser Ser Asn Ala Pro His Val Thr Val
            20                  25                  30
Ile Arg Pro Val Lys Gly Leu Glu Pro Tyr Leu Tyr Asp Cys Leu Ala
        35                  40                  45
Ala Thr Phe Tyr Gln Asp Tyr Pro His Asp Lys Leu Thr Ile Tyr Phe
    50                  55                  60
```

```
Cys Val Ser Ser Arg Ala Asp Pro Ala Tyr Pro Thr Leu Arg Lys Leu
65                  70                  75                  80
Leu Ser Asp Phe Pro His Ala Asp Ala His Ile Tyr Val Glu Glu Glu
                85                  90                  95
Asp Pro Leu Leu Gln Pro Asn Asn Ala Val Asn Tyr Asn Leu Gly Pro
            100                 105                 110
Asn Pro Lys Ile Arg Asn Met Ser Arg Ala Tyr Arg Glu Ala Lys Gly
        115                 120                 125
Asp Ile Val Trp Ile Leu Asp Cys Asn Val Trp Val Gly Arg Gly Val
    130                 135                 140
Cys Gly Arg Met Val Asp Arg Leu Cys Gly Leu Gly Asp Thr Pro Gly
145                 150                 155                 160
Arg Lys His Lys Phe Val His His Leu Pro Ile Ala Val Asp Val Thr
                165                 170                 175
Gly Thr Ser Gly Leu Arg Glu Glu Arg Gln Ala Leu Leu Gln Ala Cys
            180                 185                 190
Ala Gln Gly Asp Ser Ala Ser Ala Arg Arg Asp Ala Phe Ala Met Ile
        195                 200                 205
Glu Gln Gln His Arg Glu Val Gly Trp Leu Ala Thr Gly Gly Gly Arg
    210                 215                 220
Leu Glu Glu Leu Phe Leu Ala Ser Ser His Ala Lys Met Tyr Thr Ala
225                 230                 235                 240
Ile Asn Thr Val Leu Ile Ala Pro Cys Ile Val Gly Lys Ser Asn Met
                245                 250                 255
Phe Arg Arg Ser His Leu Asp Tyr Leu Thr Lys Pro Ser Pro Thr Glu
            260                 265                 270
Ala Gln Pro Arg Arg Pro Gly Ile Asp Tyr Phe Ser Asp Asn Ile Cys
        275                 280                 285
Glu Asp His Leu Val Gly Asp Leu Leu Trp Lys Gln Gln Ile Arg Glu
    290                 295                 300
Glu Arg Glu Leu Gly Glu Ser Trp Gly Lys His Gly Met Val Phe Gly
305                 310                 315                 320
Asp Leu Ala Ile Gln Pro Val Ala Ser Met Ser Val Arg Gly Tyr Met
                325                 330                 335
Ala Arg Arg Val Arg Trp Leu Arg Val Arg Lys Phe Thr Val Leu Leu
            340                 345                 350
Ala Thr Leu Val Glu Pro Gly Thr Glu Ser Ile Leu Cys Ser Leu Tyr
        355                 360                 365
Gly Ala Trp Gly Val Thr Thr Ser Leu Ala Gln Phe Leu Gln Arg Gln
    370                 375                 380
Gly Phe Gly Phe Ala Asp His Leu Thr Ser Trp Thr Ala Phe Phe Ser
385                 390                 395                 400
Ile Phe Phe Leu Ser Ile Ala Ala Trp Ile Leu Val Asp Trp Thr Leu
                405                 410                 415
Tyr Ile Lys Leu His Ser Ala Lys Thr Val Glu Leu Asn Asp Asp Thr
            420                 425                 430
Pro Cys Phe Ala Gln Pro Pro Glu Arg Arg Arg Thr Arg Arg Pro Phe
        435                 440                 445
Ser His Trp Leu Ala Ala Trp Leu Gly Arg Glu Met Leu Ala Leu Pro
    450                 455                 460
Ile Trp Ile Trp Ala Phe Tyr Gly Gly Val Thr Val Gln Trp Arg Asp
465                 470                 475                 480
Arg Arg Phe Arg Val Gly Leu Asn Met Lys Val Arg Glu Ile Lys Asp
                485                 490                 495
Gly Lys Gly Val Gln Ile Glu Gly Ser Tyr Ser Ser Pro Ala Ser Arg
            500                 505                 510
```

Leu Ser Ser Ser Gly Gln Gly
515

<210> 31922
<211> 483
<212> PRT
<213> A.fumigatus

<400> 31922
Thr Trp Val Cys Pro Ile Cys Ser Phe Thr Asn Pro Val Pro Ser Asn
1 5 10 15
Phe Asp Pro Ala Thr Ala Thr Ala Ser Thr Pro Leu Ser Pro Cys Leu
20 25 30
Ala Cys Gly Ile Lys Pro Pro Phe Thr Thr Val Leu Lys Ala Ala Ile
35 40 45
Thr Ala Ala Ala Ser Arg Glu Ala Ala Gln Val His Pro Ala Ser His
50 55 60
Glu Pro Gly Gln Pro Glu Ser Asn Asp Asp Glu Thr Val Arg Lys Pro
65 70 75 80
Asn Ala Ser Thr Pro Cys Pro Arg Cys Thr Phe Val Asn His Pro Tyr
85 90 95
Leu Leu Glu Cys Glu Ile Cys Gly Ala Pro Leu Ala Pro Ala Val Ala
100 105 110
Arg Gly Ala Ser Val Asp Gly Ser Arg Arg Ser Glu Ser Pro Ala Pro
115 120 125
Val Phe Gly Gln Gly Asn Ile Ala Asn Thr Glu Thr Phe Glu Val Val
130 135 140
Lys Leu Ser Phe Arg Gly Gly Gly Glu Lys Thr Phe Tyr Glu Arg Leu
145 150 155 160
Lys Gly Ala Leu Val Gln Arg Lys Trp Leu Leu Tyr Asp Ala Pro Pro
165 170 175
Val Pro Gln Gln Pro Ser Gln Ser Pro Ala Thr Pro Asn Leu Thr Ala
180 185 190
Ser Gly Ala Val Ala Ala Asn Val Ser Thr Pro Ala Gln Pro Arg Ser
195 200 205
Pro Ala Val Gly Ile Ala Gly Leu Glu Gln Arg Gly Leu Glu Ala Arg
210 215 220
Arg Asn Asn Glu Val Val Ile Gly Ser Ser Phe Glu Asp Leu Glu Ala
225 230 235 240
Leu Met Ala Ser Ala Lys Arg Ile Ile Asn Leu Ala Glu Thr Leu Ala
245 250 255
Arg Glu Ser Gly Met Ala Gly Asp Glu Asn Thr Ala Ala Thr Asn Ala
260 265 270
Val Leu Ser Glu Ser Ala Ala Ala Leu Gly Met Thr Thr Thr Lys Asp
275 280 285
Met Leu Gly Ser Gly Ala Glu Asn Leu Tyr Leu Ser Glu Leu Ser Arg
290 295 300
Asp Leu Ala Glu Tyr Leu Thr Asp Asp Asn Lys Gly Ile Leu Gln Lys
305 310 315 320
Glu Gly Gly Ile Met Ser Leu Val Asp Leu Trp Ala Met Phe Asn Arg
325 330 335
Ser Arg Asn Gly Val Glu Leu Val Ser Pro Ser Asp Phe Gln Lys Ala
340 345 350
Ala Glu Leu Trp Glu Lys Leu Lys Leu Pro Val Arg Leu Arg Arg Phe
355 360 365
Lys Ser Gly Leu Leu Val Val Gln Arg Tyr Asp Trp Asn Asp Glu Lys

```
    370                 375                 380
Thr Ile Arg Gln Leu Gln Glu Trp Met Ala Glu Leu Arg Gln Ile Pro
385                 390                 395                 400
Pro Ala Asp Pro Val Pro Trp Asp Trp Arg Gln Phe Gly Arg Ala Val
                405                 410                 415
Thr Ala Gln Glu Ala Ala Gln Arg Phe Lys Trp Ser Val Gly Val Ala
            420                 425                 430
Ala Glu Glu Leu Glu Met Ala Glu Asp Lys Gly Val Leu Cys Arg Glu
        435                 440                 445
Glu Gly Ile Glu Gly Leu Arg Phe Trp Ser Asn Tyr Ile Thr Ser Asp
    450                 455                 460
Leu Ser Ser Met Asn Ser Ile Asp Ser Ile Asp Leu Arg Val Ser Ser
465                 470                 475                 480
Leu Ala Ile
```

<210> 31923
<211> 228
<212> PRT
<213> A.fumigatus

<400> 31923

```
Arg Ile Ser Val Ala Phe Tyr Phe Ser Val Gln Pro Tyr Phe Tyr Ser
1               5                   10                  15
Tyr Leu Gln Val Val Gln Gly Tyr Asp Val Ala Thr Ala Gly Arg Val
            20                  25                  30
Thr Gln Thr Phe Ala Phe Thr Ser Thr Ile Ala Ala Phe Ala Val Ser
        35                  40                  45
Ile Leu Ile Lys Tyr Thr Arg Arg Tyr Arg Ala Phe Val Ile Ala Gly
    50                  55                  60
Cys Val Val Tyr Ile Ile Gly Met Val Leu Met Met Val Thr Arg His
65                  70                  75                  80
Glu Gly Ser Thr Pro Ala Gln Ile Leu Val Thr Gln Val Val Val Gly
                85                  90                  95
Ile Gly Gly Gly Leu Leu Asn Val Pro Val Gln Leu Gly Val Gln Ala
            100                 105                 110
Ser Ala Ser His Gln Glu Val Ala Ala Ala Thr Ala Met Phe Leu Thr
        115                 120                 125
Ser Met Glu Met Gly Gly Ala Val Gly Ala Ala Leu Ser Gly Ala Val
    130                 135                 140
Trp Thr His Asn Ile Pro Arg Lys Leu Arg Leu Tyr Leu Pro Glu Glu
145                 150                 155                 160
Asn Lys Gly Asp Ala Asp Ala Ile Phe Gly Lys Ile Thr Lys Ala Leu
                165                 170                 175
Ser Tyr Pro Leu Gly Ser Pro Val Arg Val Ala Ile Asn Gln Ala Tyr
            180                 185                 190
Gln Glu Thr Phe Lys Lys Leu Leu Ile Leu Ala Leu Ile Ala Ile Ile
        195                 200                 205
Pro Leu Val Pro Leu Ser Leu Ala Met Glu Asp Tyr Lys Leu Asp Lys
    210                 215                 220
Val Tyr Asp Ser
225
```

<210> 31924
<211> 159
<212> PRT

<213> A.fumigatus

<400> 31924
Asn Pro Ser Pro Arg Ser Arg Ala Leu Val Tyr Arg Arg Cys Arg Phe
1 5 10 15
Val Leu Met Pro Ser Phe Pro Leu Ser Asn Leu His Ala Glu Leu Thr
20 25 30
Ala Asp Ser Gly Ala Gln Pro Leu Val Asn Asp Asp Gly Thr Ile Ala
35 40 45
Leu Ala Val Asn Gly Glu Ile Tyr Asn His Arg Ile Leu Arg Lys Gly
50 55 60
Leu Lys Lys Gln Tyr Asn Phe Lys Thr His Ser Asp Cys Glu Val Val
65 70 75 80
Ile Pro Leu Val Cys Pro Lys Thr Phe His Lys Ile Ala Gly Phe Gln
85 90 95
Arg Leu Ile Ser Phe Ser Ile Trp Asn Met Val Leu Met Leu Leu Ser
100 105 110
Ile Leu Met Ala Cys Ser Leu Gly Phe Ser Met Thr Arg Arg Lys Thr
115 120 125
Gly Trp Ser Pro Leu Val Thr Pro Ser Val Ser Pro Val Ser Ile Ser
130 135 140
Asp Gly Pro Leu Arg Pro Leu Glu Leu Phe Thr Ser Pro Pro Ser
145 150 155

<210> 31925
<211> 321
<212> PRT
<213> A.fumigatus

<400> 31925
Ser Gly His Ser Phe Gly Met Pro Gln Asp Ile Ser Gln Asn Cys Arg
1 5 10 15
Leu Pro Glu Ala Asn Gln Leu Gln Tyr Met Glu His Gly Leu Asp Ala
20 25 30
Pro Lys His Leu Asp Gly Met Phe Ser Trp Val Leu Tyr Asp Lys Lys
35 40 45
Glu Asp Arg Val Val Ala Ala Arg Asp Pro Ile Gly Ile Thr Ser Phe
50 55 60
Tyr Ile Gly Trp Ser Ser Glu Thr Pro Gly Ala Val Tyr Phe Ala Ser
65 70 75 80
Glu Leu Lys Ser Leu His Pro Val Cys Asp Lys Ile Glu Ala Phe Pro
85 90 95
Pro Gly His Val Tyr Asp Ser Lys Thr Glu Ser Met Thr Arg Tyr Phe
100 105 110
Gln Pro Lys Trp Trp Asp Pro Thr Asn Val Pro Thr Ala Pro Val Asp
115 120 125
Tyr Lys Val Ile Arg Ala Thr Leu Glu Lys Ser Val Arg Lys Arg Leu
130 135 140
Met Ala Glu Val Pro Tyr Gly Val Leu Leu Ser Gly Gly Leu Asp Ser
145 150 155 160
Ser Leu Val Ala Ser Ile Ala Gln Arg Glu Thr Leu Arg Met Gln Glu
165 170 175
Ala Ala Lys Asn Ala Leu Val Asp Gln Thr Gly Ala Ser Asp Leu Val
180 185 190
Gly Ile Asp Asp Thr Asn Glu Leu Ser Val Phe Thr Thr Phe Gln Gln
195 200 205

```
Leu His Ser Phe Ser Ile Gly Leu Pro Gly Ala Pro Asp Thr Glu Ala
    210                 215                 220
Ala Leu Glu Val Ala Arg Phe Leu Gly Thr Lys His His Ala Phe Thr
225                 230                 235                 240
Phe Thr Ile Glu Glu Gly Leu Asp Ala Leu Ser Asp Val Ile Tyr His
                245                 250                 255
Leu Glu Thr Tyr Asp Val Thr Thr Ile Arg Ala Ser Thr Pro Met Tyr
            260                 265                 270
Leu Leu Ser Arg Lys Ile Lys Ala Met Gly Val Lys Met Val Leu Ser
        275                 280                 285
Gly Glu Gly Ser Asp Glu Ile Phe Gly Gly Tyr Leu Tyr Phe His Ala
    290                 295                 300
Ala Pro Asn Lys Glu Glu Phe Gly Leu His Ala Arg Gly Gly Asp Thr
305                 310                 315                 320
Arg
```

<210> 31926
<211> 303
<212> PRT
<213> A.fumigatus

<400> 31926

```
Phe Thr Pro Ala Val Leu Thr Ser Phe Arg Tyr Gly Ala Lys Asn Glu
1               5                   10                  15
Asp Phe Ala Glu Ile Ala Arg Ile Asn His Glu His Ser Lys Arg Asn
            20                  25                  30
Pro Tyr Ser Gln Phe Gln Asp Glu Tyr Thr Leu Glu Gln Ile Leu Lys
        35                  40                  45
Ala Pro Met Ile His Glu Pro Leu Thr Lys Leu Gln Cys Cys Pro Thr
    50                  55                  60
Ser Asp Gly Gly Ala Ala Ala Val Ile Val Ser Gln Ala Phe Leu Asp
65                  70                  75                  80
Ala Arg Pro His Leu Lys Asp Gln Ala Ile Leu Val Ala Gly Gln Gln
                85                  90                  95
Ile Ala Thr Asp Thr Ser Thr Leu Tyr Asn Arg Ser Ser Ile Asp Leu
            100                 105                 110
Met Gly Phe Gly Met Thr Arg Tyr Ala Cys Arg Ala Ala Thr Ala Glu
        115                 120                 125
Ala Gly Val Asn Val Lys Asp Ile Lys Val Cys Glu Leu His Asp Cys
    130                 135                 140
Phe Ser Ala Asn Glu Met Ile Thr Ile Asp Ala Leu Glu Leu Cys Glu
145                 150                 155                 160
Pro Gly Lys Ala His Glu Met Val Arg Lys Gly Asp Ile Thr Tyr Gly
                165                 170                 175
Gly Lys Met Val Ile Asn Pro Ser Gly Gly Leu Ile Ser Lys Gly His
            180                 185                 190
Pro Leu Gly Ala Thr Gly Leu Ala Gln Cys Ser Glu Leu Val Trp His
        195                 200                 205
Leu Arg Gly Trp Ala Asn Asn Arg Leu Val Gln Gly Thr Asp Val Ala
    210                 215                 220
Leu Gln His Asn Leu Gly Leu Gly Gly Ala Val Val Val Thr Val Tyr
225                 230                 235                 240
Lys Arg Ala Asp Gly Lys Val Ala Ala Ala Val Pro Ser Asp Val Val
                245                 250                 255
Ala Lys Ile Thr Gly Leu Gly Tyr Asn Pro Ala Val Glu Ala Lys Gly
```

```
            260                 265                 270
Phe Thr Ala Glu Gln Ala Lys Ser Val Leu Ser Arg Lys His Asn Asp
        275                 280                 285
Gln Trp Ala Leu Gly Asp Thr Gln Glu Arg Val Leu Ala Arg Phe
    290                 295                 300
```

<210> 31927
<211> 193
<212> PRT
<213> A.fumigatus

<400> 31927

```
Ser Ile Ser Ser Thr Phe Tyr Leu Thr Lys Ile Gln His Leu His Thr
1               5                   10                  15
Ser Arg Ala Gln Leu Ile Ser Met Gly Lys Lys Gln Val Ala Pro Ala
            20                  25                  30
Tyr Val Leu Gly Val Gly Met Thr Lys Phe Ile Lys Pro Arg Gly Lys
        35                  40                  45
Val Asp Tyr His Glu Leu Gly Phe Glu Ala Gly Val Lys Ala Met Leu
    50                  55                  60
Asp Ala His Ile Asn Tyr Asp Asp Val Asp Gln Gly Ile Ala Cys Tyr
65                  70                  75                  80
Val Tyr Gly Asp Ser Thr Cys Gly Gln Arg Val Phe Tyr Gln Phe Gly
                85                  90                  95
Leu Thr Asn Ile Pro Ile Tyr Asn Val Asn Asn Asn Cys Ser Thr Gly
            100                 105                 110
Ser Thr Gly Leu Ala Met Ala Arg Thr Met Val Ser His Gly Ala Ala
        115                 120                 125
Asp Cys Val Leu Val Ile Gly Phe Glu Lys Met Ser Pro Gly Ser Leu
    130                 135                 140
Gln Ser Val Tyr Asn Asp Arg Ala Asn Pro Thr Gly Leu Phe Gly Met
145                 150                 155                 160
Met Met Ala Glu Thr Arg Gly Ile Thr Asn Ala Pro Gly Ala Ala Gln
                165                 170                 175
Met Phe Gly Asn Ala Gly Arg Glu Tyr Met Glu Lys Tyr Val Glu Pro
            180                 185                 190
Cys
```

<210> 31928
<211> 421
<212> PRT
<213> A.fumigatus

<400> 31928

```
Arg Met Ser His Ile Ser Arg Lys Ser Thr Thr Ser Thr Gly Ile Tyr
1               5                   10                  15
Glu Thr Asn Met Glu Val Tyr Lys Thr Arg Leu Ser Pro His Val Leu
            20                  25                  30
Pro Ser Ser Pro Ile Ser Thr Pro Leu Ser Ile Leu Asp Ala Thr Val
        35                  40                  45
Ala Arg Phe Ala Pro Ala Gly Ala Ile Trp Leu Trp Asp Arg Phe Ser
    50                  55                  60
Gly Asn Leu Pro Glu Thr Asp Phe Ile Asp Cys Leu Gln Ser Leu Phe
65                  70                  75                  80
Ala Gln Thr Leu Ser Asp Tyr Pro Gln Trp Ala Gly Gln Leu Gln Trp
```

```
                85                  90                  95
Ala Pro Val Arg Glu Gly Gly Asn His Thr Glu Arg Phe Asn Arg Pro
            100                 105                 110
Met Ile Val Tyr Gly Ala Pro Asp Asp Pro Gly Asp Glu Trp Arg Val
        115                 120                 125
Val Lys Arg Asp Gly Ile Ser Val Gly Thr Leu Val Pro Ser Ala Met
    130                 135                 140
Glu Arg Ile Ser Ala Gly Ala Trp Asp Gly Ala Asn Phe Pro Gln Arg
145                 150                 155                 160
Asp Phe Leu Ser Glu Pro Pro Leu Ala Leu His Asp Leu Arg Glu Tyr
                165                 170                 175
Gln Gly Leu Pro Ser Met Gln Val Gln Ile Thr Leu Leu Lys Ser Gly
            180                 185                 190
Ala Phe Ala Ile Gly Ile Arg Met Ala His Val Leu Ala Asp Ala Gln
        195                 200                 205
Thr Leu Met Val Phe Val His Gln Trp Ala Ala Thr Ser Arg Ala Thr
    210                 215                 220
Phe Gly Ser His Asn Ser Lys Ser Leu Met Asp Ala Pro Val Phe Asn
225                 230                 235                 240
Pro Ala Leu Leu Asp Ala His Ala Ala Gly Asp Val Asp Gly Pro Ala
                245                 250                 255
Pro Asp Arg Gly Leu Val Ala Thr Ala Arg Glu Leu Pro Leu His Arg
            260                 265                 270
Phe Asp Trp Trp Lys Thr Asp Asp Pro Gly Tyr Pro Lys Val Leu Val
        275                 280                 285
Pro Asn Thr Leu Asn Ser Met Pro Ser Cys Glu Gln Leu Asp Ser Val
    290                 295                 300
Glu Leu Ser Pro Ser Thr Ser Ala Pro Trp Thr Ser Trp Asp Leu Ser
305                 310                 315                 320
Arg Arg Ile Arg Tyr Thr Gln Ile His Ser Ser Gly Asn Gln Leu Ala
                325                 330                 335
Asp Leu Lys Arg Thr Ala Leu Ala Gln Ser Gln Glu Asp Ile Ser Arg
            340                 345                 350
Leu Asp Ala Leu Leu Ala His Leu Gly Ile Ser Ile Asn Arg Ala Arg
        355                 360                 365
Asn Leu Thr Asn Cys Pro Asp Ser Val Phe Leu Asp Leu Ser Ile Gly
    370                 375                 380
Thr Arg Thr Arg Leu Ser Pro Pro Leu Pro Asp Thr Phe Leu Gly Ser
385                 390                 395                 400
Pro Leu Phe Leu Thr His Val Ser Ser Ala Ala Lys Ala Leu Cys Ala
                405                 410                 415
Ala Phe Ile Arg Gln
            420
```

<210> 31929
<211> 62
<212> PRT
<213> A.fumigatus

<400> 31929

```
Trp Arg Leu Arg Trp Ser Ala Asn Ser Gly Thr Pro Gly Thr Ala Glu
1               5                   10                  15
Phe Gly Asp Gln Asn Ser Phe Val Tyr Ser Gln Phe Tyr Val Glu Ser
            20                  25                  30
Pro Gln Thr Ser Thr Asp Trp Phe Asp Gln Leu Arg Gly Asp Leu Leu
        35                  40                  45
```

```
His Glu Leu Asp His Pro Met Ser Gln Arg Asp Arg Asn Ala
    50                  55                  60

<210> 31930
<211> 810
<212> PRT
<213> A.fumigatus

<400> 31930
Asp Ser Gly His Gln Gly Thr Ala Ala Ala Thr Ser Gln Gly Ala Val
1               5                  10                  15
Ser Arg Gly Arg Gln Ser Glu Ala Gly Glu Ser Ser Val Arg Met Pro
            20                  25                  30
Ser Pro Ser Glu Phe Gln Arg Ala Pro Asp Thr Arg Pro Lys Pro Asn
        35                  40                  45
Arg Tyr Ser Ala Pro Ala Glu Asp Leu Leu Ala Gln Arg Phe Ala Lys
    50                  55                  60
Leu Arg Ala Ser Pro Tyr Pro Val Asn Gly Gln Asn His Pro Asn Lys
65                  70                  75                  80
Gly Gln Asn Gly Ala Thr Thr Thr Pro Ser Pro Pro Lys Tyr Ser Asn
                85                  90                  95
Asp Tyr Pro Pro Arg Pro Phe Ser Tyr Ile Gln Gln Ser Ser Gln Ser
            100                 105                 110
Ser Ala Asn Leu Thr Ser Pro Ser Arg Arg Pro Leu Gly Pro Arg Asn
        115                 120                 125
Met Gly Thr Asn His Asp Leu Pro Asn Pro Pro Pro Lys Ile Pro Leu
    130                 135                 140
Asn Thr Ser Leu Pro Arg Ala Pro Asp Pro Ala Tyr Ser Pro Ile Trp
145                 150                 155                 160
Thr Val Pro Ser Gln Pro Pro Ser Asn Pro Pro Arg Thr Ser Thr Glu
                165                 170                 175
Ser Ser Arg Pro Val Asn Pro Arg Tyr Ser Gln Leu Ala Asn Ser Pro
            180                 185                 190
Arg Gly Ser Pro Ser Arg Gly Gly Leu Asp Asp Asn Pro Tyr Arg Ser
        195                 200                 205
Thr Thr Pro Asn Gly Val His His Val Lys Glu Ala Arg Ser Ser Ser
    210                 215                 220
Ala Asp Leu Pro His Ser Thr Thr Ile Thr Ala Gln Ala Leu Leu Glu
225                 230                 235                 240
Tyr Leu Arg Lys Tyr His Val Leu Leu Ile Asp Val Arg Pro Arg Glu
                245                 250                 255
Glu Phe Asp Gly Gly His Ile Tyr Ala Lys Ser Ile Ile Cys Ile Glu
            260                 265                 270
Pro Val Ala Leu Lys Glu Asn Val Ser Ala Glu Glu Leu Glu Glu Arg
        275                 280                 285
Leu Val Val Ser Pro Glu His Glu Gln Ser Leu Phe Glu Arg Arg Asn
    290                 295                 300
Glu Phe Asp Leu Val Val Tyr Tyr Asp Gln Lys Thr Asp Ser Val Ser
305                 310                 315                 320
Tyr Leu Ala Gly Ser Pro Val Gly Thr Thr Ala Pro His Leu Arg Ala
                325                 330                 335
Leu His Asp Thr Leu Tyr Glu Phe Asn Glu Tyr Lys Pro Leu Lys Asp
            340                 345                 350
Ala Arg Pro Pro Ala Leu Leu Leu Gly Gly Leu Asp Ala Trp Ile Asp
        355                 360                 365
Leu Phe Gly Gln Gln Ser Leu Ala Thr Ser Thr Thr Ala Ala Val Met
```

```
    370                 375                 380
Gly Ser Ile Gln Ala Lys Arg Pro Ala Met Arg Pro Gly Arg Pro Leu
385                 390                 395                 400
Gly Arg Val Pro Thr Met Ala Ser Ala Asn Ser Ser Leu Glu Val Arg
                405                 410                 415
Lys Arg Arg Leu Arg Glu Tyr Lys Pro Leu Asn Pro Glu Glu Leu Thr
            420                 425                 430
Ala Trp Met Glu Lys Ser Lys Asn Glu Glu Ile Asp Thr Ser Thr Tyr
        435                 440                 445
Ile Glu Glu Glu Val Leu Thr Glu Glu Pro Glu Asp Ala Ser Glu Gln
    450                 455                 460
Gln Glu Pro Pro Val Thr Pro Phe Val His Thr Tyr Glu Asp Phe Leu
465                 470                 475                 480
Arg Arg Phe Pro Glu Pro His Ala Ile Gln Glu Ser Met Ile Val Pro
                485                 490                 495
His Ser Gln Pro Ser Ile Pro Ser Ser Thr Pro Asn Tyr Ala Ala Pro
            500                 505                 510
Val Pro Val Val Pro Ser Arg Pro Pro Pro Ala Val Pro Arg Pro Ser
        515                 520                 525
Tyr Ser Gly Val Ser Asp Gly Arg Gln Ile Gln Ala Pro Leu Glu Arg
    530                 535                 540
Gln Asn Ser Ala Thr Lys Thr Ala Leu Tyr Thr Pro Ser Ser Met Leu
545                 550                 555                 560
Ser Arg Leu Lys Leu Pro Arg Thr Gly Leu Thr Asn Phe Gly Val Thr
                565                 570                 575
Cys Tyr Met Asn Ser Thr Ile Gln Cys Leu Ser Ala Thr Val Met Leu
            580                 585                 590
Ser Lys Phe Phe Ile Asp Asn Arg Phe Arg Phe Tyr Val Gln Lys Asn
        595                 600                 605
Trp Lys Gly Ser Gln Gly Ile Met Pro Gly Leu Phe Ala Asn Leu Ile
    610                 615                 620
Arg Ser Leu Trp Lys Asn Asp Val Glu Val Ile Met Pro Thr Ser Phe
625                 630                 635                 640
Arg Asn Phe Cys Gly Arg Leu Asn Gln Glu Trp Ala Ile Asp Arg Gln
                645                 650                 655
Gln Asp Ala Lys Glu Phe Phe Asp Phe Val Val Asp Cys Leu His Glu
            660                 665                 670
Asp Leu Asn Ile Asn Trp Gln Arg Thr Pro Leu Arg Pro Leu Thr Phe
        675                 680                 685
Glu Glu Glu Met Gln Arg Glu Arg Met Pro Val Pro Lys Val Ser Lys
    690                 695                 700
Ile Glu Trp Asp Arg Tyr Cys His Arg Glu Glu Ser Phe Ile Ser Ser
705                 710                 715                 720
Leu Phe Ala Gly Gln His Ala Ser Arg Leu Arg Cys Thr Thr Cys Lys
                725                 730                 735
Arg Thr Ser Thr Thr Tyr Glu Ala Phe Tyr Ser Ile Ser Val Glu Ile
            740                 745                 750
Pro His Thr Gly Thr Gly Asp Ile Tyr Gln Cys Leu Arg Ser Tyr Cys
        755                 760                 765
Gln Glu Glu Leu Leu Ser Gly Asp Glu Val Trp Lys Cys Pro Tyr Cys
    770                 775                 780
Lys Cys Gln Arg Val Ala Thr Lys Gln Ile Ile Ile Thr Arg Ala Pro
785                 790                 795                 800
Glu His Thr Arg Val Phe Ser His Lys Arg
                805                 810
```

<210> 31931
<211> 419
<212> PRT
<213> A.fumigatus

<400> 31931

```
Leu Leu Arg Thr Leu Ser Tyr Ile Tyr Thr Glu Pro Val Thr Phe Gln
1               5                  10                  15
Gly Pro Met Asn Leu Thr Gly Val His Cys Ser Pro Pro Ala Gly Thr
            20                  25                  30
Leu Gln Gln Glu Arg Ser Pro Gly Asn Phe Ser Arg Leu Thr Phe Val
        35                  40                  45
Met Glu Asp Gly Ile Arg Pro Ala Arg His Arg Glu Ser Arg Val Gln
    50                  55                  60
Thr Lys Glu Glu Ser Gly Glu Arg Arg Glu Lys Asn Lys Arg Leu Lys
65                  70                  75                  80
Glu Met Gly Gly Val Cys Leu Trp Cys Tyr Arg Leu Lys Lys Thr Cys
                85                  90                  95
Glu Pro Gln Leu Pro Cys Pro Arg Cys Gln Asp Ser Lys Ser Asn Cys
            100                 105                 110
Ile Arg Arg Pro Ala Glu Leu Ser Leu Leu Pro Cys Gln Asp Met Asn
        115                 120                 125
Gln Gly Ser Ile Ser Phe Gln Thr Lys Ser Glu Asp Ile Leu Ser Pro
    130                 135                 140
Leu Gln Lys Ile Ser Gln Cys Ala Ser Ser Gln Ala Val Val Ser Phe
145                 150                 155                 160
Cys Gln Cys Asn Gly Glu Val Ile Asp Tyr Trp Val Met His Ala Ala
                165                 170                 175
Asn Leu Gly Ala Thr Asn Met Asn Thr Ser Ser Gly Leu Gly Gln Gln
            180                 185                 190
Leu Ile Leu Lys Leu Leu Lys Cys Val Gln Ser Ala Glu Met Asp Lys
        195                 200                 205
Phe Glu Thr Glu Phe Pro Gly Ser Ser Leu Val Gln Thr Ala Val Thr
    210                 215                 220
Met His Lys Leu Leu Ser Ala Ile Leu Cys Leu Ser Lys Thr Gln Val
225                 230                 235                 240
Tyr Leu Arg Ala Ser Asp Val Glu Gln Thr Arg Ile Val Val Ser Phe
                245                 250                 255
Met Leu Ala Leu Cys Arg Gln Cys Leu Cys Glu Leu Ser Asp Asp Leu
            260                 265                 270
Gly Ser Glu Ala Tyr Ser Leu Ile Lys Gln Lys Ser Asp Tyr Asp Gly
        275                 280                 285
Glu Pro Ala Gly Met Lys Asn Asp Cys Ser Gly Ala Ser Cys Val Asn
    290                 295                 300
Pro Val Trp Val Ala Val Gly Leu Tyr His Arg Val Leu Glu Ala Leu
305                 310                 315                 320
Ser Ser Phe Glu Leu Pro Pro Pro Ile Ala Asp Ile Phe Asp Lys Val
                325                 330                 335
Lys Ile Arg Ser Asn Met Val Leu Ser Asn Ile Tyr Cys Val Lys Glu
            340                 345                 350
Lys Ile Ala His Val Phe Gly Ser Lys Leu Glu Lys Glu Lys Leu Glu
        355                 360                 365
Ala Glu Lys Val Ser Phe Glu Gln Tyr Ile Pro Pro Val Ser Cys Arg
    370                 375                 380
Arg Tyr Phe Asn Val Ala Ile Cys Phe Gly Pro Phe Asp Gln Ser Gln
385                 390                 395                 400
```

```
Pro Ser Thr Ala Ile His Arg Gln Ser Leu His Ala Gly Ala Gly Arg
                405                 410                 415
Lys Arg Ile
```

<210> 31932
<211> 154
<212> PRT
<213> A.fumigatus

<400> 31932

```
Phe Pro His His Gly Leu His Trp His Ser Thr His Trp Thr Asp Met
1               5                   10                  15
Cys Ser Leu Cys His Thr Ser Gln Tyr Pro Cys Pro Leu Ser Pro Val
            20                  25                  30
Ala Ala Ile Leu Ser Ala Val Pro Leu Thr Ile Asn Ser Val Phe Val
        35                  40                  45
Phe Ile Cys Pro Met Gln Arg His Leu Tyr Met Val Leu Phe Ala Ala
    50                  55                  60
Val Gln Ile Trp Thr Ile Leu Ile His Asp Gly Asp Met Ile Ser Gly
65                  70                  75                  80
His Trp Thr Glu Lys Ile Ile Asn Ser Pro Ala His His Thr Leu His
                85                  90                  95
His Met Tyr Phe Thr Val Asn Tyr Gly Gln Tyr Phe Thr Trp Ala Asp
            100                 105                 110
Ala Tyr Phe Gly Ser His Arg Ala Pro Glu Pro Ala Leu Asp Pro Leu
        115                 120                 125
His Asp Ala Leu Lys Val Met Arg Ala Lys Gly Leu Val Asp Glu His
    130                 135                 140
Gly Asn Pro Ile Lys Lys Pro Lys Gly Glu
145                 150
```

<210> 31933
<211> 271
<212> PRT
<213> A.fumigatus

<400> 31933

```
Leu Leu Ser Asn Ser Gly Asn Cys Phe Ala Pro Thr Ser Pro Arg Ser
1               5                   10                  15
Leu Pro Gln Ser Leu Leu Tyr Val Ala Gln Arg Pro Ser Pro Arg Arg
            20                  25                  30
Arg Gly Arg Pro Leu Thr Tyr Ser Pro Asp Gln Pro Ala Met Asp Val
        35                  40                  45
Ala Leu Glu Phe Leu Asp Pro Leu Ile Leu Asp Lys Ala Tyr Ala Trp
    50                  55                  60
Leu Leu Pro Ser Glu Pro Asn Val Pro Asp Pro Thr Ser Arg Trp Asp
65                  70                  75                  80
Arg Asp Asn Val Tyr Arg Gln Val Ile Ser Ile Leu Val Leu Thr Gln
                85                  90                  95
Leu Gly Ala Thr Ser Leu Tyr Leu Phe Phe Ser Ala Leu Ser Tyr Tyr
            100                 105                 110
Phe Val Phe Asp Arg Arg Leu Glu Tyr His Pro Arg Phe Leu Pro Asn
        115                 120                 125
Gln Val Arg Gln Glu Ile Lys Ser Ser Leu Ser Ala Ile Pro Phe Ile
    130                 135                 140
```

```
Asn Ile Leu Thr Leu Pro Trp Phe Leu Ala Glu Val Arg Gly Lys Ser
145                 150                 155                 160
Met Leu Tyr Arg Ser Val Ser Asp Tyr Gly Trp Pro Trp Leu Val Val
                165                 170                 175
Ser Ser Ile Leu Tyr Met Ala Phe Asn Asp Ile Gly Ile Tyr Trp Ile
            180                 185                 190
His Arg Leu Glu His His Pro Ser Val Tyr Lys Tyr Ile His Lys Pro
        195                 200                 205
His His Lys Trp Ile Gly Trp Ser Leu Gln Asn Ser His Val Pro Arg
    210                 215                 220
Cys Met Leu Thr Arg Tyr Ser Ser His Thr Met Gly Cys Thr Gly Ile
225                 230                 235                 240
Pro Pro Thr Gly Arg Ile Cys Ala Val Ser Ala Ile Pro Val Ser Ile
                245                 250                 255
Pro Val His Cys Pro Leu Ser Gln Gln Ser Leu Ala Pro Ser Leu
            260                 265                 270
```

<210> 31934
<211> 560
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (188),(499)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31934

```
Met Ser Trp Ser Phe Gln Gln Arg Gly Pro Ser Pro Ala Pro Asp Glu
1               5                   10                  15
Glu Pro Asp Val Glu Met Arg Phe Leu Thr Phe Phe Val Leu Ala Ala
            20                  25                  30
Ala Ala Cys Ala Ala Val Pro Tyr Glu Glu Tyr Ile Leu Ala Pro Ala
        35                  40                  45
Thr Arg Asp Leu Val Pro Glu Arg Val Tyr Gln Val Ser Gly Ser Ile
    50                  55                  60
Ser Asp Pro Ser Ala Val Thr His Ala Glu Gly Gly Lys Ala Thr Phe
65                  70                  75                  80
His Gly Val Ser Ser Val Thr Tyr Asp Phe Gly Arg Asn Ile Ala Gly
                85                  90                  95
Ile Val Ser Val Ala Val Ser Arg Val Ser Ser Pro Asp Ala Phe Ile
            100                 105                 110
Gly Val Thr Phe Ser Glu Ser Ser Ala Trp Ile Ser His Glu Ala Cys
        115                 120                 125
Asp Ala Thr Ala Asp Thr Gly Leu Asp Ser Pro Leu Trp Phe Pro Val
    130                 135                 140
Gly His Gly Pro Gly Arg Tyr Thr Ala Glu Lys Lys His Asn Arg Gly
145                 150                 155                 160
Ala Phe Arg Tyr Leu Thr Leu Phe Thr Asn Thr Ser Ala Thr Val Val
                165                 170                 175
Val Asp Ser Val Arg Phe Asn Phe Thr Ala Val Xaa Thr Gln Asn Leu
            180                 185                 190
Arg Ala Tyr Lys Gly Tyr Phe His Cys Asp Asp Glu Leu Leu Asn Arg
        195                 200                 205
Ile Trp Tyr Ala Gly Ala Tyr Thr Asn Gln Leu Cys Thr Ile Asp His
    210                 215                 220
```

```
Ser Met Gly Asn Ala Leu Pro Leu Leu Gly Thr Val Thr Ser Arg Asp
225                 230                 235                 240
Asn Ile Thr Leu Pro Glu Thr Val Pro Trp Trp Ser Asn Tyr Thr Ile
                245                 250                 255
Ala Asn Gly Ser Ser Val Leu Thr Asp Gly Ala Lys Arg Asp Arg Leu
            260                 265                 270
Val Trp Pro Gly Asp Met Ser Ile Ala Leu Glu Ser Val Ala Val Ser
        275                 280                 285
Thr Tyr Asp Leu Tyr Ser Val Arg Met Ala Leu Glu Ser Leu Phe Ala
    290                 295                 300
Met Gln Gln Ala Asp Gly Arg Leu Pro Tyr Ala Gly Lys Pro Phe Tyr
305                 310                 315                 320
Asp Thr Val Ser Tyr Thr Tyr His Leu His Ser Leu Ile Gly Val Ala
                325                 330                 335
Tyr Tyr Tyr Arg Phe Ala Gly Asp Leu Asn Trp Leu Ala Ala His Trp
            340                 345                 350
Thr Gln Tyr Lys Arg Ala Leu Gln Trp Ser Leu Ser Ser Ile Asp His
        355                 360                 365
Thr Gly Leu Ala Asn Val Thr Ala Ser Ala Asp Trp Leu Arg Phe Gly
    370                 375                 380
Met Gly Gly His Val Arg Pro Ala Pro His Ala Pro Thr Arg Ile Leu
385                 390                 395                 400
Thr Lys His Lys Ala Glu His Arg Ser Lys Leu His Pro Leu Leu Arg
                405                 410                 415
Pro Pro Gly Ile Pro Pro Pro Gly Asn Asn Pro Gln Arg His Arg Leu
            420                 425                 430
Leu Leu Val Leu Val Pro His Arg Lys His Pro Gln Ser Leu Arg Gln
        435                 440                 445
Arg Pro Thr Leu Gly Pro Ser Arg Arg Pro Leu Pro Arg Gln Arg Asn
    450                 455                 460
His His Pro Pro Pro Thr Gly Arg Gln Arg Leu Gly Pro Gln Ser Gln
465                 470                 475                 480
Pro His Leu Val Arg Asn Pro Ile Arg Arg His Leu Arg Arg Pro Leu
                485                 490                 495
Gly Pro Xaa Gly Ala Ile Arg Arg Pro Arg Pro Arg Gly Arg Ile His
            500                 505                 510
Arg Leu Pro Leu Leu His Arg Leu Arg Ala Ala Gly Pro Leu Pro Cys
        515                 520                 525
Gly Pro Ala Ala Ala Arg Ser Gly Phe Asp Ala Pro Ala Val Gly Val
    530                 535                 540
His Ala Gly Arg Ser Ala Asp Asp Pro Val Asp Val His Arg Gly Val
545                 550                 555                 560
```

<210> 31935
<211> 293
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (98)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31935

```
Leu Asn Thr Lys Gln Asn Ile Glu Ala Asn Ser Ile Leu Tyr Phe Val
1               5                   10                  15
```

```
Leu Arg Glu Ser Leu Leu Leu Ala Thr Thr Leu Asn Asp Thr Ala Ser
            20                  25                  30
Ser Ser Ser Trp Ser Arg Ile Ala Ser Thr Leu Lys Ala Ser Ala Asn
        35                  40                  45
Ala Arg Leu Trp Asp Pro Ala Val Gly Leu Tyr Arg Asp Asn Glu Thr
    50                  55                  60
Thr Thr Leu His Pro Gln Asp Gly Asn Ala Trp Ala Leu Lys Ala Asn
65                  70                  75                  80
Leu Thr Leu Ser Ala Thr Gln Ser Ala Ala Ile Ser Ala Ala Leu Ser
                85                  90                  95
Ala Xaa Trp Gly Pro Tyr Gly Ala Pro Ala Pro Glu Ala Gly Ser Thr
            100                 105                 110
Val Ser Pro Phe Ser Thr Gly Phe Glu Leu Gln Ala His Phe Leu Ala
        115                 120                 125
Gly Gln Pro Gln Arg Ala Leu Asp Leu Met Arg Arg Gln Trp Gly Phe
    130                 135                 140
Met Leu Asp Asp Pro Arg Met Thr Gln Ser Thr Phe Ile Glu Gly Tyr
145                 150                 155                 160
Ser Thr Asp Gly Ser Leu His Tyr Ala Pro Tyr Arg Asn Asp Ala Arg
                165                 170                 175
Ile Ser His Ala His Gly Trp Ala Thr Gly Pro Thr Ala Ala Leu Met
            180                 185                 190
Phe Tyr Ala Ala Gly Leu Gln Ile Ala Gly Ala Gly Gly Glu Arg Trp
        195                 200                 205
Leu Phe Ala Pro Met Pro Gly Asp Leu Gln Ala Val Glu Ala Gly Phe
    210                 215                 220
Glu Thr Arg Leu Gly Arg Phe Ala Thr Glu Phe Thr Arg Gly Glu Glu
225                 230                 235                 240
Gly Tyr Thr Lys Leu Val Phe Thr Thr Pro Glu Gly Thr Ser Gly Glu
                245                 250                 255
Val Arg Leu Glu Ala Glu Gly Val Leu Val Ser Gly Asn Gly Thr Arg
            260                 265                 270
Val Lys Leu Val Glu Gly Val Ser Thr Gly Leu His Gly Gly Thr Trp
        275                 280                 285
Arg Leu Thr Arg Val
    290
```

<210> 31936
<211> 135
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (97)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 31936
Thr Gln Ser Arg Thr Ser Lys Gln Thr Pro Ser Ser Thr Ser Ser Ser
1               5                   10                  15
Gly Asn Pro Ser Ser Trp Gln Gln Pro Ser Thr Thr Pro Pro Pro Pro
            20                  25                  30
Arg Pro Gly Pro Ala Ser Gln Ala Pro Ser Lys Pro Pro Pro Thr Pro
        35                  40                  45
Asp Ser Gly Thr Gln Pro Ser Ala Ser Thr Ala Thr Thr Lys Pro Pro
    50                  55                  60
```

```
Pro Ser Thr His Arg Thr Ala Thr Pro Gly Pro Ser Lys Pro Thr Ser
65                  70                  75                  80
Pro Cys Pro Gln Pro Asn Pro Pro Pro Ser Pro Pro Pro Ser Arg Pro
                85                  90                  95
Xaa Gly Gly His Thr Ala Pro Pro Pro Gln Arg Gln Asp Pro Pro Ser
            100                 105                 110
Pro Pro Ser Pro Pro Ala Ser Ser Cys Arg Pro Thr Ser Leu Arg Ala
        115                 120                 125
Ser Arg Ser Ala Leu Trp Ile
    130                 135

<210> 31937
<211> 350
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (254)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31937
Pro Arg Leu Val Leu Gln Ala Val Lys Arg Ser Arg Lys Trp Asn Ala
1               5                   10                  15
Phe Phe Phe Ser Cys Cys Trp His Lys His Arg Thr Ser Thr His Thr
            20                  25                  30
His Thr His Ser Thr Leu Ser Ile Pro Val Gln His Leu Ser Asp Cys
        35                  40                  45
Met Gly Ser Arg His Met Lys Asn Thr Leu His Pro Arg Gln Pro Pro
    50                  55                  60
Ser Pro Thr Met Gln Pro Arg Arg Asn Pro Leu Asn Lys Leu Asn Pro
65                  70                  75                  80
Arg Pro Ile Pro Arg Asp Gln His Ala Leu Arg Leu Gln Pro His Leu
                85                  90                  95
Pro Thr Arg Pro Leu Arg Arg Arg Lys His Gln Leu Arg Ile Ser Leu
            100                 105                 110
Leu Pro Pro Arg Glu Leu Arg Cys Lys Pro Pro Gln Thr Arg Leu Glu
        115                 120                 125
Pro Gly Leu Asn Ser Leu Gln Ile Pro Arg His Gly Arg Glu Gln Pro
    130                 135                 140
Pro Leu Pro Thr Arg Pro Arg Asn Leu Gln Ser Gly Arg Ile Glu His
145                 150                 155                 160
Gln Arg Arg Arg Arg Ala Arg Ser Pro Pro Val Arg Met Arg Asp Pro
                165                 170                 175
Cys Ile Ile Pro Ile Arg Arg Ile Val Gln Arg Pro Ile Arg Thr Ile
            180                 185                 190
Pro Leu Asp Glu Arg Arg Leu Gly His Pro Arg Ile Val Gln His Glu
        195                 200                 205
Pro Pro Leu Pro Ala His Gln Ile Gln Ser Ala Leu Arg Leu Ala Arg
    210                 215                 220
Lys Glu Val Gly Leu Gln Leu Glu Ala Gly Gly Glu Gly Gly Asp Gly
225                 230                 235                 240
Gly Ser Cys Leu Trp Gly Gly Gly Ala Val Trp Pro Pro Xaa Gly Arg
                245                 250                 255
Glu Gly Gly Gly Asp Gly Gly Gly Leu Gly Cys Gly Gln Gly Glu Val
            260                 265                 270
```

```
Gly Phe Glu Gly Pro Gly Val Ala Val Leu Trp Val Glu Gly Gly Gly
        275                 280                 285
Phe Val Val Ala Val Glu Ala Asp Gly Trp Val Pro Glu Ser Gly Val
    290                 295                 300
Gly Gly Gly Phe Glu Gly Ala Cys Asp Ala Gly Pro Gly Arg Gly Gly
305                 310                 315                 320
Gly Gly Val Val Glu Gly Cys Cys Gln Glu Glu Gly Phe Pro Glu Asp
                325                 330                 335
Glu Val Glu Asp Gly Val Cys Phe Asp Val Leu Leu Cys Val
            340                 345                 350
```

<210> 31938
<211> 591
<212> PRT
<213> A.fumigatus

<400> 31938

```
Gly Arg Met Ser Pro Asp Glu Val Ser Leu Pro Ser Pro Tyr Lys Ser
1               5                   10                  15
Thr Ala Ala Ser Leu Val Asp Val Phe Lys Thr Leu Gly Val Ala Arg
            20                  25                  30
Ser Arg Ser Gln Thr Pro Leu Ser Leu Glu Asp Asp Ser Ser His Ser
        35                  40                  45
Leu Ser His Thr Thr Asp Ala Arg Arg Asn Asn Phe Leu Val Leu Gly
    50                  55                  60
Phe Glu Ser Met His Arg Gly Ser Val Val Ser Ser Ser Ser Asp Thr
65                  70                  75                  80
Pro Arg Ala Pro Asp Phe Glu Thr Ser Leu Arg Asn Leu Ser Gln Thr
                85                  90                  95
Gln Asn Leu Ala His Ala Ile Asp Glu Ala Glu His Val Ser Arg Ser
            100                 105                 110
Leu Gln Trp Phe Thr Ser Asp Gln Ser Ile Ala Leu Trp Glu Ala Gly
        115                 120                 125
Ser Tyr Leu Ile His Asn Pro Asp Ser Pro Asp Ala Arg Arg Ser Gly
    130                 135                 140
Ser Met Leu Ile Glu Ala Val Ala Ala Arg Gln Asp Leu Ser Pro Ser
145                 150                 155                 160
Gly Arg Arg Ile Val Phe Glu Ala Ile Ser Cys Ser Ser Glu Pro Asp
                165                 170                 175
Val Ile Pro Ala Arg Val Gln Ser Leu Ile Ser Leu Ser Asp His Gly
            180                 185                 190
Arg Lys Leu Asp Phe Thr Ser Ser Ser Ile Leu Pro Ile Leu Ser Ser
        195                 200                 205
Cys Ala Val Pro Leu Tyr Glu Leu Ile Ser Ser Ser Arg Leu Lys Ala
    210                 215                 220
Arg Lys Ala Lys Val Gly Lys Val Asn Gly Leu Gly Tyr Asp Glu Thr
225                 230                 235                 240
Ala Leu Asp Asp Leu Leu Gln Phe Ala Val Asp Leu Ile Thr Leu Gln
                245                 250                 255
Arg Lys Arg Pro Ser Ala Glu Glu Val Glu Ser Leu Leu Asp Gln Ile
            260                 265                 270
Phe Thr Ile Cys Lys Lys Thr Ser Val Ala Ala Asp Ile Lys Asn Ser
        275                 280                 285
Leu Ala Val Phe Asp Ala Val Ile Leu Tyr Ala Asp Val Pro Asp Gly
    290                 295                 300
Ser Phe Val Pro Met Leu Glu Val Leu Cys Ser Ile His Ala Ser Val
```

```
305                 310                 315                 320
Lys Ser Leu Ser Gly Pro Thr Ser Arg Ala Val Arg Asn Leu Ala Lys
                325                 330                 335
Ser Arg Trp Gln Thr Glu Met Ile Asn Thr Leu Asp Ser Phe Leu Met
            340                 345                 350
Asp Ser Ser Gly Glu Glu Ser Arg Asn Ile Asn Val Leu Arg Gly Thr
        355                 360                 365
Val Tyr Ile Phe Thr Asp Leu Val Arg Ala His Gly Gln Asp Gly Ile
    370                 375                 380
Pro Gln Leu Arg Phe Glu His Leu Met Asp Cys Leu Glu Val Val Ile
385                 390                 395                 400
Arg Lys Asp Asp Ser Arg Leu Glu Ala Asp Val Leu Glu Leu Cys Leu
                405                 410                 415
Asn Ile Leu Asp Gly Asp Phe Ala His Val Ala Leu Glu Ser Ser Trp
            420                 425                 430
Ser Gly Phe Val Arg Val Leu Asn Ser Cys Ser Leu Arg Ala Ile Gly
        435                 440                 445
Glu Cys Glu Glu Arg Ala Ala Ser Ile Ser Ser Ser Gln Ser Pro Phe
    450                 455                 460
Ser Lys Thr Ser Thr Ser Glu Asp Ala Lys Ser Asn Ile Leu Ala Asn
465                 470                 475                 480
Ala Val Gln Ile Ala Ala Thr Val Glu Ser Leu Trp Asp Arg Leu Ser
                485                 490                 495
Arg Glu Gln Lys Leu Glu Ala Thr Arg Phe Leu Met Asn Leu Cys Glu
            500                 505                 510
His Ile Glu Pro Ser Gln Ala Glu Leu Val Ile Asn Thr Met Arg Ser
        515                 520                 525
Glu Asn Leu Cys Leu Pro Ser Arg Ser Asp Trp Val Asn Tyr Cys Gln
    530                 535                 540
Arg Leu Ile Arg Cys Phe Ile Arg Ser Arg Asn Lys Pro Ser Asp Ile
545                 550                 555                 560
Arg Ile Ser Ala Leu Asp Leu Leu Lys Glu Ala Phe Ser Thr Tyr Asp
                565                 570                 575
Ala Leu Val Phe Phe Lys Gly Arg Arg Val Ala Pro Pro Tyr Ala
            580                 585                 590
```

<210> 31939
<211> 93
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (39)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31939

```
Ser Glu Ser Arg Cys Met Ile Glu Ser Ser Glu Trp Met Glu Glu Leu
1               5                   10                  15
Met Glu Glu Val Asp Arg Gln Ser Ile Met Gln Gly Pro Ile Leu Gly
            20                  25                  30
Val Phe Val Trp Gly Ile Xaa Asn Met Pro Lys Tyr Arg Pro Thr Thr
        35                  40                  45
Asp Pro Ser Gln Ala Leu Phe Val Leu Thr Thr Val Gln Lys Ile Pro
    50                  55                  60
Val Glu Leu Tyr Phe Met Glu Gly Leu Glu Ile Gly Thr Ile Val Tyr
```

65 70 75 80
Leu Ala Leu Trp Arg Gln Ser Thr Asn Arg Val Phe Lys
85 90

<210> 31940
<211> 617
<212> PRT
<213> A.fumigatus

<400> 31940
Val Asn Thr Ala Ser Val Ser Lys Val Ser Leu Lys Met Glu Tyr Phe
1 5 10 15
Asp Phe Asp Gly Ala Ser Phe Gly Ser His Ala Pro Asp Asp Glu Val
20 25 30
Ala Ser Asp Arg Phe Glu Leu Asp Glu Asn Asp Ala Ile Glu Asn Tyr
35 40 45
Glu Ser Leu Leu Arg Glu Gln Pro Leu Asp Phe Pro Asn Asp Leu Pro
50 55 60
Glu Gln Asp Ala Leu Asn Pro Gln Thr Glu Ala Pro Ser Val Asn Ala
65 70 75 80
Gln Ser Asn Asn Ala Leu Pro Ile His Arg Ala Lys Glu Pro Cys Asp
85 90 95
Phe Cys Arg His Met Asn Leu Asp Cys Phe Ile Ser Asp Arg Gly Ala
100 105 110
Leu Gln Asn Gly Cys Thr Cys Cys Val Ile Leu Phe Arg Glu Cys Ser
115 120 125
Phe Thr His Ala Lys Lys Pro Gly Lys Tyr Met Glu Thr Leu Gln Ser
130 135 140
Ile Ser Glu Asn Ala Asp Ile Pro Thr Val Gly Pro Lys Gly Arg Lys
145 150 155 160
Thr Leu Lys Ser Leu Thr Gly Met Thr Ile Ser Glu Asp Met Glu Gly
165 170 175
Arg Gly Arg Lys Ser Ser Ser Arg Leu Ser Arg Asp Ala Val Arg Ile
180 185 190
Leu Lys Thr Trp Leu Leu Glu His Leu Asp His Pro Tyr Pro Ser Glu
195 200 205
Gln Glu Lys Asp Glu Leu Lys Lys Arg Thr Gly Leu Lys Arg Ser Gln
210 215 220
Ile Ser Asn Trp Leu Ala Asn Ala Arg Arg Arg Gly Lys Ala Arg Pro
225 230 235 240
Leu Pro Pro Ser Asn Ser Ser Val Pro Gly Ala Ile Asn Ile Pro Gly
245 250 255
Gln Gln Gln Gln Gln Gln Pro Asn Ile Ala Leu Met Thr Pro Leu Glu
260 265 270
Arg Trp Lys Tyr Ser Pro Pro Glu Asn Glu Pro Ala Ser Thr Thr Asp
275 280 285
Ile Leu Arg Ala Leu Val Asn Asn Pro Leu Asp Ser Thr Arg Gln Pro
290 295 300
Gly His Val Arg Ser Leu Ser Arg Lys Gly Ser Ser Asn Asp Ser Ser
305 310 315 320
His Ala Asn Ser Asn Ile Phe Lys Ala Pro Ser Ile Ser Ser Leu Gly
325 330 335
Glu Ser Arg Ser Val Ser Arg Ser Ser Val Ser Asp Leu Ser Phe Ala
340 345 350
Ser Ala Phe Ser His Arg Ser Ser Leu Glu Ser Phe Gly Ser Met Glu
355 360 365

```
Arg Lys Glu Arg Arg Arg Arg Arg Lys Pro Ser Thr Ala Leu Asn Thr
    370                 375                 380
Phe Asn Gln Gln Lys Ala Arg Asn Ser Arg Ile Phe Gln Cys Thr Phe
385                 390                 395                 400
Cys Thr Glu Thr Phe Ala Thr Lys Tyr Asp Trp Gln Arg His Glu Lys
                405                 410                 415
Ser Leu His Leu Ala Leu Asp Lys Trp Thr Cys Ser Pro Gln Gly Gly
            420                 425                 430
Val Val Tyr Val Asn Gly Ala Asn Arg Cys Val Phe Cys Met Ala Ser
        435                 440                 445
Asp Pro Asp Thr Asp His Leu Glu Ser His Cys Tyr Ser Thr Cys Gln
    450                 455                 460
Glu Lys Thr Leu Ala Glu Arg Thr Phe Tyr Arg Lys Asp His Leu Asn
465                 470                 475                 480
Gln His Leu Arg Leu Met His Asn Val Lys Phe Asn Ser Tyr Met Asn
                485                 490                 495
Gln Trp Gln Ser Thr Thr Thr Glu Leu Lys Ser Arg Cys Gly Phe Cys
            500                 505                 510
Gly Thr Thr Leu Thr Thr Trp Lys Asp Arg Val Glu His Leu Ala Ala
        515                 520                 525
His Phe Lys Asn Gly Ala Asp Met Thr Gln Trp Gln Gly Asp Trp Gly
    530                 535                 540
Phe Glu Pro Phe Val Gln Gly Leu Val Glu Asn Ala Met Pro Pro Tyr
545                 550                 555                 560
Leu Ile Gly Gln Asp Arg Lys Thr Leu Asn Pro Tyr Thr Thr Ser Lys
                565                 570                 575
Phe Leu Gly Gln Ser Cys Cys Ser Pro Thr Thr Ala Ser Pro Gly Leu
            580                 585                 590
Ile Glu Pro Asn Asp Val Asn Cys Phe His Arg Leu Gln Arg Glu Leu
        595                 600                 605
Thr Ala Tyr Ile His Lys Gln Val Ala
    610                 615
```

<210> 31941
<211> 297
<212> PRT
<213> A.fumigatus

<400> 31941

```
Arg Ala Leu Ile Phe Gln Pro Arg Arg Val Arg Arg Asp Val Tyr Pro
1               5                   10                  15
Arg Asp Gly Gln Asp Ser Thr Glu Ala His Ile Asp Ser Gln Asn Pro
            20                  25                  30
Gln Gly Pro Asn Gly Thr Glu Ser Ser Gln Lys Ser Thr Gly Arg Lys
        35                  40                  45
Ser Lys Lys Lys Lys Gly Lys Lys Gly Arg Asn Gly Ser His Ala Gln
    50                  55                  60
Gly Asp Glu Thr Ser Thr Pro Met Ser Thr Pro Ser Val Ser Met Ser
65                  70                  75                  80
His Pro Leu Pro Pro Pro Leu Ser Ser His Leu Ala Ser His Asn Ile
                85                  90                  95
Leu Lys Pro Ala Lys Asn Arg Ser Ile Trp Asn Thr Ser Thr Gln Glu
            100                 105                 110
Glu Arg Glu Asn Ile Lys Thr Phe Trp Leu Glu Leu Gly Glu Glu Glu
        115                 120                 125
Arg Arg Gln Leu Val Lys Val Glu Lys Asp Ala Val Leu Lys Lys Met
```

```
    130                 135                 140
Lys Glu Gln Gln Arg His Ser Cys Ser Cys Thr Val Cys Gly Arg Lys
145                 150                 155                 160
Arg Thr Ala Ile Glu Glu Glu Leu Glu Val Leu Tyr Asp Ala Tyr Tyr
                165                 170                 175
Glu Glu Leu Glu Gln Tyr Ala Asn His Asn Gln Gly Ser Phe Glu Lys
            180                 185                 190
Gly Ser Pro Met Val Pro Pro Pro Arg Leu Tyr Gln Pro Pro Leu Arg
        195                 200                 205
Ser Pro Gly Gln His Thr Arg Thr Gln Gly Gln Phe His Pro Ser Arg
    210                 215                 220
Gly Arg Ile His Glu Leu Thr Glu Asp Asp Asp Leu Glu Glu Asp Tyr
225                 230                 235                 240
Asp Glu Glu Glu Asp Asp Gly Asp Glu Pro Tyr Ser Asp Glu Glu Leu
                245                 250                 255
Asp Glu Glu Asp Glu Glu Thr Arg Ala Ala Arg Ala Asp Phe Phe Ala
            260                 265                 270
Phe Gly Asn Ser Leu Thr Val Lys Gly Lys Ala Asp Val Pro Pro Ala
        275                 280                 285
Phe Asp His Ser Asn Arg Ile Leu Tyr
    290                 295
```

<210> 31942
<211> 503
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (267),(270),(274),(275),(283),(286)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31942

```
Ser Lys Asn Ser Trp Arg Arg Arg Leu Gly Thr Asn Ser Glu Met Leu
1               5                   10                  15
Arg Lys Leu Gly Lys Arg Lys Asn Gly Lys Thr Lys Lys Asp Phe Arg
            20                  25                  30
Asn Arg Pro Arg Lys Arg Asn Ala Arg Val Gly Lys Arg Arg Arg Leu
        35                  40                  45
Gln Arg Lys Gln Leu Pro Arg Arg Asn Arg Arg Arg Asn Leu Arg Asn
    50                  55                  60
Ser Glu Arg Asn Gly Arg Ser Ser Gly Arg Arg Lys Lys Gln Asn Gly
65                  70                  75                  80
Arg Pro Lys Lys Arg Ser Val Arg Ala Lys Arg Arg Lys Ser Leu Asp
                85                  90                  95
Val Ser Val Arg Asn Glu Ser Asp Arg Pro Lys Arg Ser Glu Ser Ser
            100                 105                 110
Ala Arg Arg Arg Asn Asp Ala Lys Arg Leu Gly Gly Lys Lys Lys Lys
        115                 120                 125
Asn Ala Asn Cys Gly Lys Arg Arg Gln Arg Lys Ser Ala Thr Ala Arg
    130                 135                 140
Leu Arg Ser Asn Lys Pro Arg Arg Ile Gln Gln Lys Ala Glu Arg Lys
145                 150                 155                 160
Pro Lys Ile Arg Arg Ser Val Met Ile Lys Pro Asn Gly Arg Arg Asn
                165                 170                 175
Arg Tyr Leu Ser Leu Phe Arg Arg Ile Tyr Ile Ile Phe Arg Ala Phe
```

```
            180                 185                 190
Pro Arg Leu Ser Leu Ile Arg Arg Thr Ser His Pro Gln His Leu Cys
        195                 200                 205
Tyr Leu Lys Leu Leu Leu Leu Pro Asn Pro Val Ser His Pro Asn Lys
    210                 215                 220
Ile Leu Ile Pro Pro Arg His Thr Pro Lys Pro Leu Ala Pro Thr Gly
225                 230                 235                 240
Phe Gln Gly Tyr Leu Phe Ser Ser Phe Asp Ala Arg Val Ser Val Ile
                245                 250                 255
Gly Ser Cys Gln Trp Glu Phe Ala Thr Arg Xaa Arg Glu Xaa His Ala
            260                 265                 270
Met Xaa Xaa Gln Pro Gln Leu Phe Thr Pro Xaa Ser Pro Xaa Gly Arg
        275                 280                 285
Ser Ile Pro Pro Gly Phe Ser Ser Val Asn Gly Ile Pro Pro Asn Pro
    290                 295                 300
Pro Gly Leu Ser Gly Met Val Ala Arg Pro Pro Val Gly His Asp Leu
305                 310                 315                 320
Pro Ser Tyr Pro Ser His Ser Gly Pro Phe Ile Ser Pro Phe Arg Gly
                325                 330                 335
Tyr Pro Ala Pro Thr Gly Ile Pro Ala Pro Pro Gly Ile Asn Gly Ala
            340                 345                 350
Arg Pro Met Pro Pro Gly Arg Gly Phe Pro Leu Glu Pro Ala Gln Gly
        355                 360                 365
Phe Ala Phe His Gly Gln Gln Ile Pro Gly Ala Phe Ser Thr Pro Gln
    370                 375                 380
Gly Gly Leu Pro His Arg His Ser Arg Gln Pro Ser Gly Ser Leu Glu
385                 390                 395                 400
Arg Ser Pro Leu Glu Asn His Ala Gln Pro Met Pro Ile Ser Arg Pro
                405                 410                 415
Ser Pro Ile Lys Arg Pro Ser Ser Thr Gln Gln Asp Gln Gln Lys Gly
            420                 425                 430
Asp Asp Arg Thr Thr Gln Arg Asp Val Asp Asp Leu Ser Ala His Leu
        435                 440                 445
Gly Ser Ser Ala Leu Leu Asp Asp Ser Asp Val Ser Leu Ser Ser Asn
    450                 455                 460
Leu Ser Gln Ser Leu Pro Gly Ala Thr Val Pro Gly Thr Phe Ser Gly
465                 470                 475                 480
Pro Ala Arg Ala Ser Phe Gly Gly Pro Ser Leu Phe Pro Asp Pro Leu
                485                 490                 495
Ser Gly Lys Phe Leu Arg Leu
            500
```

<210> 31943
<211> 127
<212> PRT
<213> A.fumigatus

<400> 31943

```
Cys Ala Ala Ser Phe Arg Ser Phe Gln Gln Asn Pro Val Leu Ile Ser
1                   5                   10                  15
Ser Phe Phe Pro Ser Leu Ser Glu Ile Asp Gly Ile Leu Thr Val Ala
            20                  25                  30
Asp Asp Leu Leu Lys Asn Asp Gly Lys His Phe Ile Asp Met Met Glu
        35                  40                  45
Gln Leu Ala Glu Arg Arg Met Gln Arg Glu Glu Asp Thr Gln Tyr Gly
    50                  55                  60
```

```
Ile Ala Ala Ala His Glu Ser Leu His Ser Gly His Asn His Gly Pro
65                  70                  75                  80
Phe Asp Asp Glu Asp Tyr Asp Asp Glu Glu Asp Glu Asp Tyr Asp Ser
                85                  90                  95
Gln Glu Glu Glu Asp Tyr Glu Glu Asp Glu Met Val Cys Pro Gly Val
            100                 105                 110
Val Pro Pro Leu Arg Gly Ile Arg Pro Leu Cys Phe Val His Arg
        115                 120                 125
```

<210> 31944
<211> 350
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (315),(318),(322),(323),(331),(334)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31944

```
Pro Leu Pro Gln Asp Ala Met Thr Glu Glu Gln Arg Met Glu Glu Gly
1               5                  10                  15
Arg Arg Met Phe Gln Ile Phe Ala Ala Arg Met Phe Glu Gln Arg Val
            20                  25                  30
Leu Thr Ala Tyr Arg Glu Lys Val Ala Glu Gln Arg Gln Gln Lys Leu
        35                  40                  45
Ile Glu Glu Leu Met Glu Glu Glu Thr Arg Asn Glu Gln Arg Asn Ala
    50                  55                  60
Lys Lys Ala Arg Glu Ala Gln Lys Arg Lys Asp Lys Lys Arg Leu Gln
65                  70                  75                  80
Lys Gln Ala Lys Glu Glu Glu Arg Ala Arg Arg Glu Ala Glu Lys Ala
                85                  90                  95
Ala Glu Glu Ala Ala Ala Lys Ala Glu Gln Glu Lys Lys Leu Glu Glu
            100                 105                 110
Gln Arg Lys Lys Arg Glu Glu Gln Arg Lys Lys Lys Glu Ala Glu Arg
        115                 120                 125
Lys Ala Gln Glu Glu Glu Arg Ala Arg Lys Glu Ala Glu Lys Leu Arg
    130                 135                 140
Arg Gln Arg Glu Glu Arg Glu Arg Gln Ala Glu Ala Glu Arg Lys Gln
145                 150                 155                 160
Arg Glu Glu Lys Lys Arg Arg Glu Glu Ala Arg Arg Lys Glu Lys Glu
                165                 170                 175
Glu Arg Glu Leu Arg Glu Lys Lys Ala Lys Glu Glu Arg Asp Arg Lys
            180                 185                 190
Ala Gln Glu Gln Gln Ala Lys Lys Asp Thr Ala Lys Gly Gly Glu Glu
        195                 200                 205
Ala Lys Asp Gln Glu Lys Arg Asp Asp Gln Ala Lys Arg Ser Ser Gln
    210                 215                 220
Gln Val Pro Val Pro Ile Pro Thr Asn Leu His His Leu Gln Gly Leu
225                 230                 235                 240
Ser Pro Thr Val Ala His Ser Pro His Val Pro Ser Ala Thr Pro Val
                245                 250                 255
Leu Pro Lys Ala Pro Thr Pro Ala Lys Pro Arg Gln Pro Ser Gln Gln
            260                 265                 270
Asp Ser His Ser Ser Ser Pro His Ser Gln Ala Pro Ser Thr Asp Arg
        275                 280                 285
```

```
Phe Ser Gly Leu Pro Phe Phe Phe Val Arg Cys Pro Gly Leu Ser His
    290                 295                 300
Arg Glu Leu Pro Val Gly Ile Arg Asn Lys Xaa Gln Gly Xaa Ser Cys
305                 310                 315                 320
Asn Xaa Xaa Ser Thr Ser Ala Phe Tyr Ala Xaa Val Pro Xaa Arg Gln
                325                 330                 335
Ile His Ser Ser Trp Ile Leu Glu Arg Gln Arg Asn Thr Thr
            340                 345                 350
```

<210> 31945
<211> 64
<212> PRT
<213> A.fumigatus

<400> 31945

```
Arg Leu Arg Gln Ile Arg Gly Glu Arg Asn Ile Thr Val Ile Lys Glu
1               5                   10                  15
Ser Thr Ala Thr Lys Met Gly Ala Gln Ile Ile His Ile Pro Leu Cys
            20                  25                  30
Gly Ala Ile Ile Thr Leu Leu Leu Val Leu Leu Gly Ala Gly Trp Ser
        35                  40                  45
Phe Asp Arg Ala Arg Ser Arg Asn Trp His Arg Leu Cys Val Ile Leu
    50                  55                  60
```

<210> 31946
<211> 231
<212> PRT
<213> A.fumigatus

<400> 31946

```
Ile Arg Arg Asn Arg Asp Arg Tyr Leu Leu Arg Arg Pro Phe Gly Leu
1               5                   10                  15
Ile Ile Thr Leu Leu Leu Ile Phe Gly Phe Leu Ser Ala Phe Cys Cys
            20                  25                  30
Ile Leu Leu Gly Leu Leu Leu Leu Ser Leu Ala Val Ala Leu Phe Leu
        35                  40                  45
Cys Leu Leu Phe Pro Gln Phe Ala Phe Phe Phe Phe Phe Pro Pro Ser
    50                  55                  60
Leu Phe Ala Ser Phe Leu Leu Leu Ala Leu Leu Ser Leu Arg Phe Gly
65                  70                  75                  80
Leu Ser Leu Ser Phe Leu Thr Leu Thr Ser Lys Leu Phe Arg Leu Phe
                85                  90                  95
Ala Arg Thr Leu Leu Phe Leu Gly Leu Pro Phe Cys Phe Phe Leu Leu
            100                 105                 110
Pro Leu Leu Leu Pro Phe Leu Ser Leu Phe Leu Lys Phe Leu Leu Leu
        115                 120                 125
Phe Arg Leu Gly Ser Cys Phe Leu Cys Ser Leu Leu Arg Phe Pro Thr
    130                 135                 140
Arg Ala Phe Leu Phe Leu Gly Leu Phe Leu Lys Ser Phe Phe Val Phe
145                 150                 155                 160
Pro Phe Leu Arg Phe Pro Ser Phe Leu Ser Ile Ser Leu Phe Val Pro
                165                 170                 175
Ser Leu Leu Leu His Glu Phe Phe Asp Gln Leu Leu Leu Pro Leu Leu
            180                 185                 190
Gly Asp Leu Phe Ser Val Cys Ser Gln Asp Ala Leu Leu Glu His Ser
        195                 200                 205
```

```
Gly Arg Lys Tyr Leu Lys His Pro Ser Ala Phe Phe His Ala Leu Phe
    210                 215                 220
Phe Cys His Gly Ile Leu Arg
225                 230

<210> 31947
<211> 135
<212> PRT
<213> A.fumigatus

<400> 31947
Gln Ser Ala Tyr Tyr Gly Arg Thr Pro Thr Thr Thr Ile Ile Ile Thr
1               5                   10                  15
Ala Gly Val Gln Lys Tyr Arg Ala Ser Ser Gln Ile Ala Phe Cys Ile
            20                  25                  30
Met Arg Pro Ser His Leu Gly Leu Leu Ala Arg Arg Ser Trp Ile Cys
        35                  40                  45
Thr Arg Cys Arg Val Ala Asn Tyr Ser Ser Val Ala Pro Ala Arg Ala
    50                  55                  60
Gly Lys Ser Lys Lys Asn Leu Pro Asp Ala Pro Ala Arg Thr Arg Phe
65                  70                  75                  80
Ala Pro Ser Pro Thr Gly Tyr Leu His Leu Gly Ser Leu Arg Thr Ala
                85                  90                  95
Leu Phe Asn Tyr Leu Leu Ala Lys Arg Thr Gly Gly Gln Phe Leu Leu
            100                 105                 110
Arg Ile Glu Asp Thr Asp Gln Val Arg Pro Trp Ser Lys His Gly Thr
        115                 120                 125
Leu Glu Cys Cys Asp Gln Gly
    130                 135

<210> 31948
<211> 189
<212> PRT
<213> A.fumigatus

<400> 31948
Asp Ala Leu Leu Gln Ser Glu Arg Thr Ala Ile Tyr Arg Glu His Ala
1               5                   10                  15
Asn Gln Leu Val Gln Asn Gly His Ala Tyr Arg Cys Phe Cys Ser Pro
            20                  25                  30
Glu Arg Leu Asp Ser Leu Ala Arg His Arg Ser Gln Ala Gly Leu Pro
        35                  40                  45
Pro Gly Tyr Asp Arg Gln Cys Ala Asp Ile Ser Ala Glu Glu Ser Glu
    50                  55                  60
Asp Arg Ala Ala Lys Gly Glu Ala His Val Val Arg Leu Lys Val Glu
65                  70                  75                  80
Gly Tyr Pro Met Phe Asp Asp Leu Val Tyr Gly Lys Thr Gly Gln Asn
                85                  90                  95
Arg Ser Ser Ser Lys Leu Asp Leu Ile Glu Arg Val Tyr Asp Asp Pro
            100                 105                 110
Ile Leu Leu Lys Ser Asp Gly His Pro Thr Tyr His Leu Ala Asn Val
        115                 120                 125
Val Asp Asp His Cys Met Lys Ile Thr His Val Ile Arg Gly Thr Val
    130                 135                 140
Ser Ile Leu Pro Arg Lys Lys Gln Thr Ala Asn Ile Asp Ser Tyr Arg
145                 150                 155                 160
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Asn Gly Cys Pro Arg His Gln Cys Met Trp Pro Cys Ile Thr Pro Ser
                165                 170                 175
Thr Gly His Leu Arg Ala Ser Val Met Phe Pro Ser Ser
            180                 185

<210> 31949
<211> 121
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (24),(57),(85),(101)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31949
Thr Pro Gly Thr Ile Ala Leu Leu Thr Ala Thr Gln Phe Asn Leu Lys
1               5                   10                  15
Ile Thr Arg Gly Asn Thr Val Xaa Ala Phe Glu Lys Leu Trp Phe Leu
            20                  25                  30
Gln Lys Ala His Ala Gln Arg Phe Ala Ala Thr Gly Gly Pro Val Phe
        35                  40                  45
Asp Glu Met Gly His Gln Val Ser Xaa Ala Gly Glu Glu Thr Tyr Pro
    50                  55                  60
Ala Asp Gln Leu Tyr Val His Asn Pro Ser Thr Pro Leu Arg Asn Asn
65                  70                  75                  80
Gln Leu Thr Phe Xaa Gln Trp Asn His Pro Ser Ile Pro Arg Pro Leu
                85                  90                  95
Asn Gly Leu His Xaa Pro Pro Ser Phe Lys Gly Asp Ala Lys Ile Phe
            100                 105                 110
Thr Asn Ala Pro Gly Ile Leu Pro Gly
        115                 120

<210> 31950
<211> 91
<212> PRT
<213> A.fumigatus

<400> 31950
Leu Val Gln Glu Trp Met Pro Ser Thr Pro Met His Val Ala Leu Tyr
1               5                   10                  15
Asn Ala Phe Asn Trp Thr Pro Pro Arg Phe Gly His Val Pro Leu Leu
            20                  25                  30
Val Asp Lys Ser Gly Gln Lys Leu Ser Lys Arg Asn Ala Asp Ile Asp
        35                  40                  45
Leu Ser Phe Phe Lys Asp Lys Gln Gly Val Phe Ala Ala Thr Leu Ile
    50                  55                  60
Asn Phe Ala Ala Leu Leu Gly Trp Ser His Thr Gln Lys Ser Asp Val
65                  70                  75                  80
Phe Ser Leu Asp Glu Leu Glu Leu Leu Val Gly
                85                  90

<210> 31951
<211> 92
<212> PRT
<213> A.fumigatus
```

<400> 31951
Trp Thr Arg Phe Glu Ala Gln Val Ala Pro Phe His Glu His Pro Arg
1 5 10 15
Leu Ile Trp Thr Thr Gly Phe Lys Gln Ile Leu Thr Arg Met Gly Gln
20 25 30
Phe Leu Thr Pro Ser Thr Val Thr Cys Ser Thr Cys Asn Gly Gln Gly
35 40 45
Glu Phe Phe Ser Pro Lys Asp Lys Cys Lys Lys Cys Lys Gly Asn Lys
50 55 60
Thr Val Glu Glu Lys Lys Met Leu Glu Ile Tyr Ile Pro Arg Gly Ala
65 70 75 80
Val Phe Thr Thr Gly Leu Glu Gly Ala Val Gln Arg
85 90

<210> 31952
<211> 162
<212> PRT
<213> A.fumigatus

<400> 31952
Gln Ala Ala Leu Ala Ser His Pro Asp Lys Val Pro Glu Ala Glu Arg
1 5 10 15
Glu Ala Ala Glu Val Arg Phe Lys Ala Val Gln Glu Ala Tyr Asp Ile
20 25 30
Leu Tyr Asp Glu Asp Lys Arg His Leu Tyr Asp Thr His Gly Met Ser
35 40 45
Ala Phe Asn Gly Ser Gly Glu Pro Gly Met Ala Gly Gly Pro Asp Leu
50 55 60
Asp Asp Ile Leu Ala Gln Met Phe Gly Met Gly Gly Gly Met Pro Gly
65 70 75 80
Met Gly Gly Met Pro Gly Gly Arg Pro Pro Lys Pro Arg Arg Ser Pro
85 90 95
Asp Glu Asn Thr Lys Tyr Glu Val Arg Leu Glu Asp Leu Tyr Lys Gly
100 105 110
Lys Thr Val Lys Phe Ala Ser Thr Lys Asn Val Ile Cys Ser Leu Cys
115 120 125
Gln Gly Lys Gly Gly Lys Glu Arg Ala Thr Ala Lys Lys Cys Ser Thr
130 135 140
Cys Asp Gly Gln Gly Leu Arg His Lys Trp Leu Leu Phe Met Asn Thr
145 150 155 160
Leu Asp

<210> 31953
<211> 101
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (19),(20),(28)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31953
Glu Glu His Gln Leu Cys Thr Leu Glu Arg Leu Thr Asp Val Ile Arg

```
1               5                   10                  15
Phe Ala Xaa Xaa Ile Pro Ala Ser Phe Ser Leu Xaa Ser Arg Gly Leu
            20                  25                  30
Ser Asn Cys Glu Leu Gly Leu Thr Gly Cys Tyr Pro Leu Ile Tyr Leu
        35                  40                  45
Leu Gln Ile Pro Ile Thr Ile Val Ser Ile Ser Pro Ile Leu Asp Ser
    50                  55                  60
Ser Trp Tyr Lys Phe Lys Asp Pro Arg Asp Gly Ser Gly Leu Gln Pro
65                  70                  75                  80
Glu Ile Tyr Leu Tyr Asp Val Asn Pro Pro Thr Ile Ala Thr Arg Ile
                85                  90                  95
Ile Arg Ser Cys Lys
            100
```

<210> 31954
<211> 271
<212> PRT
<213> A.fumigatus

<400> 31954

```
Asn Arg Gly Ala Asn Asn Arg Ser Gln Asp Tyr Ser Leu Arg Ala Lys
1               5                   10                  15
Asp Tyr Asn Ala Lys Lys Ala Lys Leu Lys Arg Leu Gln Glu Leu Ala
            20                  25                  30
Ala Asn Arg Asn Pro Asp Glu Phe Ala Phe Gly Met Met Ser Ala His
        35                  40                  45
Ser Gln Lys Lys Gly Lys His Gly Ser Ala Ala Arg Asp Ser Ala Ala
    50                  55                  60
Lys Arg Gly Leu Ser His Glu Ala Ile Lys Leu Leu Lys Thr Gln Asp
65                  70                  75                  80
Ala Ala Tyr Leu Arg Thr Thr Gly Glu Arg Leu Arg Arg Glu Ile Glu
                85                  90                  95
Lys Val Glu Gln Glu Val Arg Leu Gln Glu Gly Ile Gln Glu Ala Leu
            100                 105                 110
Gly Glu Lys Lys Lys Asp Glu Ser Glu Ser Asp Ile Glu Glu Asp Asp
        115                 120                 125
Asp Asp Phe Asp Phe Asp Phe Gly Pro Lys Glu Lys Arg Gly Gln Lys
    130                 135                 140
Lys Ala Arg Lys Leu Ile Phe Ala Asp Asp Arg Arg Glu Gln Arg Ala
145                 150                 155                 160
Leu Lys Lys Arg Lys Leu His Glu Asp Gln Asp Glu Glu Glu Asp Glu
                165                 170                 175
Asp Glu Glu Gln Ser Phe Gly Glu Leu Gln Lys Lys Gln Leu Gln Lys
            180                 185                 190
Lys Ser Gln Lys Gln Leu Glu Ala Glu Arg Leu Ala Leu Val Glu Ala
        195                 200                 205
Arg Arg Val Arg Lys Met Lys Lys Arg Ala Ala Glu Ala Arg Glu Asn
    210                 215                 220
Lys Leu Lys Ala Leu Arg Lys Gln Tyr Ala Asp Ile Thr Ala Ala Glu
225                 230                 235                 240
Arg Glu Leu Asp Trp Gln Arg Gly Arg Met Asp Asn Ser Val Gly Gly
                245                 250                 255
Thr Asn Lys Asp Gly Ile Lys Trp Lys Ile Arg Glu Arg Lys Lys
            260                 265                 270
```

<210> 31955

<211> 193
<212> PRT
<213> A.fumigatus

<400> 31955
Arg Ser Ser Asp Asn Val His Pro Gly Gln Gly Pro Gly Leu Gly Ile
1 5 10 15
Asp Leu Val Leu Asp Gly Leu Gln Leu Ala Leu Val Gln Val Asp Gly
20 25 30
Asp Gln Asp His Leu Arg Val Asn Ala Val Leu Ser Leu Ala Gln Gln
35 40 45
Ile Arg Ser His Glu Gly Arg Val Gly Val Leu Val Gly Asp Asp Gln
50 55 60
His Leu Thr Arg Ser Gly Gly His Ile Asp Ala Asp Thr Gly Arg Gly
65 70 75 80
Val Val Gly Asn Gln His Leu Gly Cys Arg His Glu Leu Val Thr Gly
85 90 95
Ala Gln Asp Leu Val His Leu Ala Asp Thr Leu Arg Ser Val Ser His
100 105 110
Gly Gly His Gly Leu Arg Thr Thr Gly Glu Asp Asn Ala Leu Gly Ser
115 120 125
His Phe Val Gly Asp Val Asp Asn Leu Gly Gly Asp Ala Ala Ile Gly
130 135 140
Pro Arg Arg Arg Ser Gln Asp Asn Leu Leu Ala Ala Gly Asn His Gly
145 150 155 160
Gly Asp Thr Glu His His Gly Gly Gly Arg Gln His Gly Cys Ala Thr
165 170 175
Gly Asp Val Gln Thr Asn Thr Leu Asn Arg Ala Arg Lys Ala Arg Ala
180 185 190
Asn

<210> 31956
<211> 138
<212> PRT
<213> A.fumigatus

<400> 31956
Arg Ile Arg Cys Ser Gly Ala Tyr Ser Leu Leu Ser Ala Ile Ala Ser
1 5 10 15
Ser Met Ser Arg Thr Thr Lys Val Thr Glu Cys Ala Arg Asp Pro Arg
20 25 30
Thr Met Ser Ile Arg Gly Arg Ala Arg Ala Trp Ala Ser Thr Ser Ser
35 40 45
Ser Met Ala Cys Ser Trp Leu Ser Phe Lys Ser Met Ala Ile Arg Ile
50 55 60
Thr Cys Glu Ser Thr Pro Cys Ser Ala Trp Leu Ser Arg Ser Glu Ala
65 70 75 80
Thr Lys Ala Gly Leu Ala Ser Leu Ser Ala Met Thr Asn Thr Ser Leu
85 90 95
Gly Pro Ala Gly Ile Ser Met Leu Thr Pro Ala Glu Val Ser Leu Glu
100 105 110
Thr Ser Ile Leu Ala Ala Val Thr Asn Trp Leu Pro Gly Pro Lys Ile
115 120 125
Leu Ser Thr Leu Leu Ile Leu Ser Val Pro
130 135

<210> 31957
<211> 112
<212> PRT
<213> A.fumigatus

<400> 31957
Trp Arg Arg Ser Ser Thr Pro Ala Ala Ser Ser Ser Asp Ser Gly Pro
1 5 10 15
Leu Arg Val Leu Val Ile Thr Leu Arg Val Ser Thr Thr Leu Cys Val
20 25 30
Ser Phe Arg Leu Ser Arg Ala Gly Ile Lys Leu Thr Thr Thr Ala Thr
35 40 45
Tyr Gly Tyr Ala Lys Gln Tyr Ser Gly Val Asn Leu Gly Ser Phe Leu
50 55 60
Lys His Ile Thr Ser Ser Asn Leu Thr Ala Glu Gly Leu Leu Gly Leu
65 70 75 80
Ser Arg Thr Val Glu Gln Leu Ala Ala Val Glu Gly Leu Asp Ala His
85 90 95
Lys Arg Ala Val Ser Ile Arg Val Ala Ala Met Lys Lys Asn Gln Ala
100 105 110

<210> 31958
<211> 149
<212> PRT
<213> A.fumigatus

<400> 31958
Ala Cys Ser Pro Gly Pro Gln Gln Leu Ser Ser Ser Ser Cys Gly Leu
1 5 10 15
Asp Glu Pro Arg Arg Glu Pro Ala Ser Pro Pro Gln Val Ala Ser Ala
20 25 30
Thr Phe Ser Val Ala Ala Ser Ser Ala Ile His Gln Thr Thr Val Leu
35 40 45
Arg Pro Arg Pro Pro Pro His Leu Asp Leu Arg Glu Val Ser Val Ser
50 55 60
Ser Thr Arg Ala Ala Pro Ala Asp His Pro Gln Arg Ser Thr Ser Ser
65 70 75 80
Pro Ser Ser Ala Arg Ala Ser Pro Leu Ala Arg Asn Arg Asn Gln Ser
85 90 95
Arg His His Pro Pro Leu Cys Arg Ile Arg Ser His Pro Ser Ser Ser
100 105 110
Pro Gln Glu Pro Pro Glu Ser Pro Pro Val Thr Ser Pro Pro Ala Pro
115 120 125
Pro Ser Arg Ser Pro Ala Val Ala Ala Pro Pro Ser Ser Ala Gly Thr
130 135 140
Pro His Pro Ala Ser
145

<210> 31959
<211> 320
<212> PRT
<213> A.fumigatus

<400> 31959
Val Cys Ser Arg Phe Ser Arg Pro Ile Glu Arg Val Gly Leu Tyr Val

```
1               5                   10                  15
Pro Gly Gly Thr Ala Val Leu Pro Ser Thr Ala Met Met Leu Gly Val
            20                  25                  30
Pro Ala Met Val Ala Gly Cys Gln Lys Ile Val Leu Ala Ser Pro Pro
        35                  40                  45
Arg Ala Asp Gly Ser Ile Ser Pro Glu Ile Val Tyr Val Ala His Lys
    50                  55                  60
Val Gly Ala Glu Ser Ile Val Leu Ala Gly Gly Ala Gln Ala Val Ala
65                  70                  75                  80
Ala Met Ala Tyr Gly Thr Glu Ser Ile Ser Lys Val Asp Lys Ile Leu
                85                  90                  95
Gly Pro Gly Asn Gln Phe Val Thr Ala Ala Lys Met Leu Val Ser Asn
            100                 105                 110
Asp Thr Ser Ala Gly Val Ser Ile Asp Met Pro Ala Gly Pro Ser Glu
        115                 120                 125
Val Leu Val Ile Ala Asp Lys Asp Ala Asn Pro Ala Phe Val Ala Ser
    130                 135                 140
Asp Leu Leu Ser Gln Ala Glu His Gly Val Asp Ser Gln Val Ile Leu
145                 150                 155                 160
Ile Ala Ile Asp Leu Asn Glu Ser Gln Leu Gln Ala Ile Glu Asp Glu
                165                 170                 175
Val Asp Ala Gln Ala Arg Ala Leu Pro Arg Met Asp Ile Val Arg Gly
            180                 185                 190
Ser Leu Ala His Ser Val Thr Phe Val Val Arg Asp Ile Asp Glu Ala
        195                 200                 205
Met Ala Leu Ser Asn Glu Tyr Ala Pro Glu His Leu Ile Leu Gln Val
    210                 215                 220
Lys Asn Ala Glu Ser Val Val Glu Lys Val Val Asn Ala Gly Ser Val
225                 230                 235                 240
Phe Ile Gly Gln Trp Thr Pro Glu Ser Val Gly Asp Tyr Ser Ala Gly
                245                 250                 255
Val Asn His Ser Leu Arg Lys Phe Ser Ser Phe Pro Cys Arg Asn Gln
            260                 265                 270
Ala Asn Asn Asn Ser Asn Leu Arg Leu Arg Gln Ala Val Leu Trp Ser
        275                 280                 285
Gln Pro Gly Leu Val Pro Gln Ala His His Gln Leu Glu Leu Asp Gly
    290                 295                 300
Arg Gly Ile Ala Gly Ile Val Ser His Gly Gly Ala Val Gly Cys Arg
305                 310                 315                 320
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<210> 31960
<211> 314
<212> PRT
<213> A.fumigatus

```
<400> 31960
Gln Ala Ile His Gln Tyr Gly Leu Ile Cys Val Arg Leu Pro Ser Ser
1               5                   10                  15
Tyr Gln Val Trp Arg Leu Leu Thr Thr Asn Arg Ser Asn Thr Phe Ser
            20                  25                  30
His Gln Leu Tyr Ala Ala Phe Arg Pro Thr Tyr Ser Lys Gln Leu Tyr
        35                  40                  45
Ser Ala Val Leu Ala Tyr His Gln Gly Pro Ser Trp Thr Ala Leu Asp
    50                  55                  60
Leu Gly Thr Gly His Gly Leu Val Ala Arg Glu Leu Ser Pro His Phe
65                  70                  75                  80
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```
Gln Arg Val Leu Ala Ser Asp Pro Ser Ala Gly Met Ile His Glu Ala
                85                  90                  95
Arg Gln Leu Ser Thr Gly Phe Pro Asn Met Thr Phe Tyr Gln Ala Arg
            100                 105                 110
Ala Glu Glu Cys Pro Phe Ala Ala Asp Ala Gln Val Asp Leu Val Thr
        115                 120                 125
Ala Ala Gln Ser Ala His Trp Phe Asp Tyr Ala Lys Leu Trp Pro Glu
    130                 135                 140
Met Arg Arg Ile Val Arg Ser Gly Gly Thr Leu Ala Phe Trp Gly Tyr
145                 150                 155                 160
Lys Asp His Val Leu Val Ser Tyr Pro Arg Ala Thr Ser Ile Ile Asn
                165                 170                 175
Glu Tyr Ala Tyr Gly Gln Asp Pro Trp Leu Leu Gly Ser Tyr Trp Gln
            180                 185                 190
Gln Pro Gly Arg Ser Ile Val Gln Gln Lys Leu Arg Ala Val Gln Pro
        195                 200                 205
Pro Val Glu Asp Trp Glu Asp Val Ser Arg Asp Glu Tyr Glu Pro Gly
    210                 215                 220
Val Glu Gly Gly Thr Arg Phe Met His Ala Arg Met Thr Leu Gly Ser
225                 230                 235                 240
Met Glu Glu Tyr Val Arg Thr Trp Ser Ser Phe His Ala Trp Gln Arg
                245                 250                 255
Lys Trp Pro Asp Arg Ile Arg Arg Ala Pro Gly Asn Thr Asp Gln Arg
            260                 265                 270
Gly Asp Val Ile Asp Glu Met Met Asp Lys Ile Arg Glu Thr Glu Pro
        275                 280                 285
Ser Phe Gln Arg Asp Asp Trp Lys Asp Val Glu Val Asp Val Glu Trp
    290                 295                 300
Gly Ser Ala Leu Ile Leu Ala Arg Arg Arg
305                 310

<210> 31961
<211> 111
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (101)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31961
Ala Leu His Lys Leu Leu Ser Val Ile Phe Gln Met Thr Arg Thr Ala
1               5                   10                  15
Ser Val Pro Ile Asn His Ile Thr Ile Arg Thr His Gln Pro Ala Asp
            20                  25                  30
Ile Glu Trp Ile Ile Ser Arg His Gly Thr Leu Tyr Ala Glu Glu Tyr
        35                  40                  45
Asn Phe Asn Asp Lys Phe Val Ala Leu Val Ser Lys Ile Ala Ser Asp
    50                  55                  60
Phe Gln Gln Asn His Asp Pro Thr Ser Glu Arg Cys Trp Ile Ala Glu
65                  70                  75                  80
Arg Thr Gly Lys Thr Thr Asn Glu Pro Val Val Cys Ile Met Arg Leu
                85                  90                  95
Lys Asp Val Asp Xaa Ile Ala Thr Ala Ser Arg Phe Ser Cys Val
            100                 105                 110
```

<210> 31962
<211> 60
<212> PRT
<213> A.fumigatus

<400> 31962
Glu Asp Asn Lys Gly Trp Asn Lys Val Ala Ile Tyr Thr Asn Tyr Phe
1 5 10 15
His Asn Ser Tyr Ile Phe Leu Ile Ser Ile Thr Arg Arg Glu Arg Arg
20 25 30
Leu Leu Lys Leu Ser Ser Asn Tyr Leu Leu Ile Phe Thr Asn Ser Asn
35 40 45
Leu Glu Ala Cys Leu Ile Lys Val Val Glu Val Leu
50 55 60

<210> 31963
<211> 77
<212> PRT
<213> A.fumigatus

<400> 31963
Arg Lys Ala Met Asn Thr Glu Leu Leu Arg Thr Leu Pro Leu Leu Lys
1 5 10 15
Tyr Leu Thr Phe Pro Leu Lys Ala Leu Asp Thr Ser Ile Pro Phe Ser
20 25 30
Val Pro Ser Glu Ala Gln Arg Arg Thr Phe Ile Leu Ser Ala Leu Ala
35 40 45
Thr Thr Tyr Ser Gln Leu Lys Tyr Gly Thr Leu Pro Trp Pro Thr Ser
50 55 60
Ser Ile Pro Ser Asp Tyr Leu Tyr Leu Ala Ala Leu Lys
65 70 75

<210> 31964
<211> 74
<212> PRT
<213> A.fumigatus

<400> 31964
Tyr Asn Arg Ala Leu Ile Asn Thr Lys Leu Ser Thr Glu Gln Glu Ala
1 5 10 15
Ala Leu Ile Lys Tyr Ile Asn Ile Leu Ile Lys Leu Asp Ile Pro Leu
20 25 30
Trp Pro Lys Val Ile Ser Asn Val Val Asn Leu Ile Phe Phe Tyr Arg
35 40 45
Tyr Thr Asn Leu Ile Thr Pro Pro Pro Leu Ile Ser Val Tyr Trp Met
50 55 60
Lys Tyr Phe Leu Lys Tyr Tyr Leu Glu Tyr
65 70

<210> 31965
<211> 312
<212> PRT
<213> A.fumigatus

<400> 31965

```
Leu Ala Asp Met Leu Gly Arg His Glu Cys Thr Ile Ser Glu Ser Val
1               5                  10                  15
Ser Ala Leu Asp Pro Thr Ala Gln Glu Pro Glu Tyr Thr Leu Val Pro
            20                  25                  30
Ser Thr Ser Arg Asp Leu Val Arg Asp Met Thr Leu Asn Met Glu Asp
        35                  40                  45
Ala Gln Ala His Leu Lys Glu His Gly Trp Val Lys Ile Pro Ala Val
    50                  55                  60
Leu Ser Lys Ala Glu Ala Glu Asp Ala Leu Ser Arg Leu Trp Glu Ala
65                  70                  75                  80
Lys Ala Ala Ser Glu Ala Arg Gly Glu Cys Thr Phe Gln Pro Ile Leu
                85                  90                  95
Asp Pro Asn Pro Ala Asn Val Arg Val Phe Tyr Leu Pro Glu Leu Asp
            100                 105                 110
Ala Tyr Trp Arg Asp Met Leu Val Asn Pro Thr Ala Leu Asp Leu Ala
        115                 120                 125
Lys Ser Leu Leu Gly Asp Gln Leu Leu Val Ser Asn Phe Ser Ala Asn
    130                 135                 140
Ile Ala Arg Pro Gly Ala Glu Ser Met Ala Leu His Ser Asp Gln Ser
145                 150                 155                 160
Ile Val Leu Pro Ala Pro Trp Leu Asp Val Trp Ala Val Asn Val Ile
                165                 170                 175
Trp Cys Leu Thr Arg Met Thr Lys Glu Asn Gly Ala Thr Leu Tyr Ile
            180                 185                 190
Pro Gly Ser Asn Lys Trp Thr Thr Trp Glu Asp Val Pro Asp Asn Ala
        195                 200                 205
Pro Asp Leu Leu Val Pro Phe Glu Ala Asp Ala Gly Asp Ile Val Val
    210                 215                 220
Ile Asp Gly Arg Leu Trp His Thr Ser Gly Ser Asn Val Thr Glu Asp
225                 230                 235                 240
Glu Asp Arg Ala Ile Leu Phe Ala Tyr Tyr Ser Ala Pro His Met Arg
                245                 250                 255
Pro Leu Thr Asn Trp Ser Ala Lys Leu Pro Lys Glu Leu Gln Glu Thr
            260                 265                 270
Leu Ser Pro Gln Leu Lys Glu Leu Leu Ala Leu Ser His Ile Gly Tyr
        275                 280                 285
Val Val Lys Gly Asp Leu Thr Tyr Met Ala Gln Lys Tyr Pro Ser Glu
    290                 295                 300
Lys Gly Thr Thr Ala Val Ser Ala
305                 310

<210> 31966
<211> 135
<212> PRT
<213> A.fumigatus

<400> 31966
Gly Cys Thr Gln Pro Ser Leu Gly Gly Glu Ser Cys Leu Gly Gly Ser
1               5                  10                  15
Trp Arg Val His Phe Pro Ala Asp Leu Gly Ser Gln Pro Gly Glu Arg
            20                  25                  30
Ala Arg Leu Leu Ser Pro Arg Val Gly Arg Ile Leu Ala Arg His Ala
        35                  40                  45
Gly Gln Pro Asp Arg Thr Arg Pro Gly Gln Val Pro Pro Gly Arg Pro
    50                  55                  60
Ala Ala Gly Gln Gln Leu Leu Gly Gln His Cys Ser Ser Trp Arg Gly
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65 70 75 80
Glu His Gly Pro Ala Leu Gly Pro Glu His Arg Ser Ser Ser Ala Val
85 90 95
Val Gly Cys Leu Gly Ser Gln Arg Asp Leu Val Pro Asp Glu Asp Asp
100 105 110
Gln Gly Glu Arg Cys Asp Leu Val Tyr Pro Arg Phe Glu Gln Val Asp
115 120 125
His Leu Gly Gly Arg Ala Arg
130 135

<210> 31967
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31967
Phe Gly Gly Leu Gly Asp Leu Gln Thr Ser Thr Cys Ile Thr Thr Val
1 5 10 15
Arg Pro Glu Ala Lys Asp Arg Phe Tyr Asn Asn Thr Leu Glu Lys Ser
20 25 30
Pro Gln Ala Ala Pro Thr Asp Ile Ser Met Gly Glu Pro Ile Leu Thr
35 40 45
Ile Pro Asp Pro Asn Ser Asp Tyr Tyr Phe Asn Leu Pro
50 55 60

<210> 31968
<211> 327
<212> PRT
<213> A.fumigatus

<400> 31968
Ser Glu Ala Val Gln Glu Ser Phe His Leu Ala Phe Ile Tyr Asn Thr
1 5 10 15
Met Ala Pro Val Ala Met Ser Ser Glu Pro Ala Val Phe Asn Thr Lys
20 25 30
Arg Asp Gly His Ala Leu Glu Asp Leu Ser Asp Ala Ile Asp Thr Val
35 40 45
Asn Leu Leu Lys Asn Glu Met Lys Lys Glu Arg Gly Leu Tyr Asp Glu
50 55 60
Ser Glu Phe Asp Lys Asn Lys Asp Lys Thr Gln Phe Arg Gln Tyr Glu
65 70 75 80
Asp Ala Cys Asp Arg Val Lys Asn Phe Tyr Arg Glu Gln His Thr Lys
85 90 95
Gln Thr Val Ala Tyr Asn Leu Lys Ala Arg Asn Asp Phe His Ser Lys
100 105 110
Thr Arg Ala Glu Met Ser Ile Trp Glu Ala Met Glu Lys Leu Asn Thr
115 120 125
Leu Ile Asp Glu Ser Asp Pro Asp Thr Ser Leu Ser Gln Ile Glu His
130 135 140
Leu Leu Gln Ser Ala Glu Ala Ile Arg Arg Asp Gly Lys Pro Arg Trp
145 150 155 160
Met Gln Leu Thr Gly Leu Ile His Asp Leu Gly Lys Leu Leu Tyr Phe
165 170 175
Phe Asp Ala Gln Gly Gln Trp Asp Val Val Gly Asp Thr Phe Pro Val
180 185 190
Gly Cys Ala Phe Asp Asp Arg Ile Ile Tyr Gly Lys Glu Ser Phe Lys

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        195                 200                 205
Glu Asn Pro Asp Tyr Glu His Glu Ile Tyr Gly Thr Lys Tyr Gly Ile
    210                 215                 220
Tyr Thr Pro Gly Cys Gly Leu Asp Asn Met Met Leu Ser Trp Gly His
225                 230                 235                 240
Asp Glu Tyr Leu Tyr His Val Val Lys Asp Gln Ser Thr Leu Pro Asp
                245                 250                 255
Glu Ala Leu Ala Met Ile Arg Tyr His Ser Phe Tyr Pro Trp His Gln
            260                 265                 270
Ala Gly Ala Tyr His Glu Phe Met Asn Glu Lys Asp Gln Lys Met Leu
        275                 280                 285
Gln Ala Val Lys Ala Phe Asn Pro Tyr Asp Leu Tyr Ser Lys Ser Asp
    290                 295                 300
Asp Val Pro Ser Val Glu Glu Leu Lys Val Ser Phe Pro Ser Ser His
305                 310                 315                 320
Ser Thr Arg Arg Val Ile Ser
                325
```

<210> 31969
<211> 107
<212> PRT
<213> A.fumigatus

<400> 31969

```
Pro Phe Asn His Pro Asp Pro Ser Glu Ile Ala Phe Gly Tyr Ala Arg
1               5                   10                  15
Arg Ser Cys Ala Ala Arg Tyr Phe Ala Asp Ala Ser Val Tyr Ile Thr
            20                  25                  30
Val Val Gln Leu Leu Ala Val Phe Asn Val Arg Lys Ala Arg Asp Asp
        35                  40                  45
Gln Gly Asn Glu Ile Pro Val Thr Leu Gln Ala Ile Pro Gly Met Val
    50                  55                  60
Asn Arg Pro Ala Pro Phe Gln Phe Lys Val Glu Pro Arg Ser Gln His
65                  70                  75                  80
His Ile Asp Leu Leu Arg Arg Ile Glu Ser Glu Gln Ile Pro Glu Val
                85                  90                  95
Ser His Ala Ser Leu Leu Lys Pro Ser Thr Val
            100                 105
```

<210> 31970
<211> 531
<212> PRT
<213> A.fumigatus

<400> 31970

```
Val Gln Ser Gly Gln Val Phe Ala Cys Val Phe His Leu Ala Ile His
1               5                   10                  15
Pro Val Val Asp Ala Ile Leu Gly Met Asp His Pro Tyr Leu Gln Asp
            20                  25                  30
Glu Val Leu Arg Gln Ser Leu Gln Asn Pro Asp Glu Phe Trp Ser Arg
        35                  40                  45
Gln Ala Glu Arg Leu His Trp His Arg Lys Pro Asp Thr Ala Leu Arg
    50                  55                  60
Thr Thr Gln Lys Ser Leu Pro Asp Gly Thr Ala His Pro Met Trp Glu
65                  70                  75                  80
Trp Phe Pro Gly Gly Glu Ile Ser Thr Cys Tyr Asn Cys Val Asp Arg
```

```
                85                  90                  95
His Val Ala Ala Gly Asn Gly His Glu Ser Ala Ile Tyr Tyr Asn Ser
            100                 105                 110
Pro Val Thr Asn Thr Lys Glu Thr Ile Thr Tyr His Thr Leu Leu Arg
        115                 120                 125
Glu Val Glu Thr Leu Ala Gly Val Leu Arg Glu Ala Gly Val Lys Lys
    130                 135                 140
Gly Asp Val Val Met Leu Tyr Met Pro Met Ile Pro Ala Ala Leu Ile
145                 150                 155                 160
Gly Met Leu Ala Val Asn Arg Leu Gly Ala Val His Ser Val Val Phe
                165                 170                 175
Gly Gly Phe Ala Pro Asn Ala Leu Ala Gln Arg Val Glu Ala Cys Lys
            180                 185                 190
Pro Asp Val Leu Leu Thr Ala Ser Cys Gly Ile Val Gly Asn Arg Pro
        195                 200                 205
Pro Ile Ala Tyr Gln Ala Leu Val Glu Glu Ala Ile Lys Leu Ser Tyr
    210                 215                 220
His Lys Pro Ala His Thr Ile Val Trp Gln Arg Asp Gln Leu Gln Trp
225                 230                 235                 240
Asp Phe Gln Glu Ser Ala Pro Thr Trp Trp Arg Thr Val Trp Gln Trp
                245                 250                 255
Ile Gln Arg Val Leu Phe Arg Arg Arg Ile Arg Thr Ala Lys Gln Ser
            260                 265                 270
Ser Trp Gln Gln Leu Val Ala Ser Ala Arg Ala Arg Gly Leu Lys Ala
        275                 280                 285
Asp Cys Val Pro Val Pro Ser Asp Gln Pro Ile Tyr Ile Met His Thr
    290                 295                 300
Ser Gly Thr Thr Gly Ala Pro Lys Gly Val Leu Arg Ser Ser Gly Gly
305                 310                 315                 320
His Ala Val Gly Leu Gln Phe Thr Ile Gln Tyr Ile Phe Asn Ile His
                325                 330                 335
Gly Pro Arg Asp Val Met Phe Ala Ala Ser Asp Ile Gly Trp Val Val
            340                 345                 350
Gly His Ser Tyr Ile Leu Tyr Ala Pro Leu Leu Ala Gly Ala Ala Thr
        355                 360                 365
Val Leu Tyr Glu Gly Lys Pro Val Gly Thr Pro Asp Ala Ser Ala Phe
    370                 375                 380
Trp Lys Val Val Glu Glu Tyr Gln Val Asn Thr Met Phe Ala Thr Pro
385                 390                 395                 400
Thr Ala Leu Arg Ala Ile Lys Gln Glu Asp Pro Ser Asn Thr Lys Leu
                405                 410                 415
Ala Glu Ile Gly Ala Arg Gly Gly Leu Arg Ser Leu Gln Ala Leu Phe
            420                 425                 430
Leu Ala Gly Glu Arg Ser Glu Pro Thr Leu Val Ser Met Tyr Gln Glu
        435                 440                 445
Leu Leu Asp Gln His Gly Gly Arg Asn Ala Gln Val Ile Asp Asn Trp
    450                 455                 460
Trp Ser Thr Glu Ala Gly Ser Pro Ile Thr Gly Arg Ala Met Ala Pro
465                 470                 475                 480
His Phe Gly Leu Thr Thr Glu Leu Ser Arg Ser Phe Asp Ile Pro Ile
                485                 490                 495
Pro Pro Ile Lys Pro Gly Ser Ala Gly Lys Pro Met Pro Gly Phe Asp
            500                 505                 510
Val Arg Val Val Asp Glu His Gly Glu Glu Ser Ser Pro Arg Gly Gly
        515                 520                 525
Asp Gln Arg
```

530

<210> 31971
<211> 190
<212> PRT
<213> A.fumigatus

<400> 31971
Leu Val Ala Leu Pro Asp Tyr Cys Val Cys Arg Leu Val Ile Gly Lys
1 5 10 15
Leu Asp Cys Phe Phe Asp Lys Cys Leu Val Arg Asn Arg Gly Pro Ile
20 25 30
Pro His Asp Pro Ala Arg Cys Ser Glu Gln His Ile Arg Phe Ala Arg
35 40 45
Leu Asp Ser Leu Gly Glu Ser Val Gly Arg Lys Ala Ala Glu His Asp
50 55 60
Arg Val Asn Ser Ser Gln Thr Ile Asp Gly Lys His Ala Asn Gln Arg
65 70 75 80
Ser Arg Asp His Gly His Val Gln His Asp His Ile Thr Leu Leu Asp
85 90 95
Pro Cys Leu Ser Gln Asp Pro Gly Gln Arg Leu Asp Leu Pro Glu Glu
100 105 110
Gly Val Ile Arg Asp Gly Leu Leu Cys Ile Arg Asp Arg Ala Val Val
115 120 125
Val Asp Gly Arg Phe Met Ser Val Ser Cys Arg Asp Val Pro Val Tyr
130 135 140
Ala Ile Val Ala Arg Arg Asp Phe Ser Ala Gly Glu Pro Phe Pro His
145 150 155 160
Arg Val Arg Gly Ala Ile Trp Gln Thr Leu Leu Gly Cys Pro Glu Cys
165 170 175
Arg Val Arg Phe Ser Met Pro Val Lys Ala Leu Gly Leu Ala
180 185 190

<210> 31972
<211> 92
<212> PRT
<213> A.fumigatus

<400> 31972
Ser Ser Ser Ser Trp Tyr Met Glu Thr Lys Val Gly Ser Asp Arg Ser
1 5 10 15
Pro Ala Arg Asn Ser Ala Cys Arg Asp Arg Lys Pro Pro Arg Ala Pro
20 25 30
Ile Ser Ala Ser Leu Val Leu Leu Gly Ser Ser Cys Leu Ile Ala Leu
35 40 45
Ser Ala Val Gly Val Ala Asn Met Val Phe Thr Trp Tyr Ser Ser Thr
50 55 60
Thr Phe Gln Asn Ala Asp Ala Ser Gly Val Pro Thr Gly Leu Pro Ser
65 70 75 80
Tyr Lys Thr Val Ala Ala Pro Ala Ser Asn Gly Ala
85 90

<210> 31973
<211> 610
<212> PRT
<213> A.fumigatus

<400> 31973
Asn Arg Arg Gln Ala Lys Arg Leu Glu His Gln Met Arg Asn Gly Ala
1 5 10 15
Asn Ile Gln Asp Ala Ser Glu Asn Ile Glu Gln Ala Arg Pro Asp Lys
20 25 30
Pro Ala Gln Glu Pro Thr Thr Val Val Ser Gln Arg Lys Glu Pro Glu
35 40 45
Ala Gln Val Thr Ala Pro Glu Ser Glu Glu Pro Lys Asp Asn Gly Lys
50 55 60
Ala Lys Arg Ser Pro Lys Glu Glu Gln Gln Glu Gln Gln Pro Asp Val
65 70 75 80
Gln Thr Glu Gln Arg Lys Pro Glu Pro Pro Ala Glu Gly Ser Met Thr
85 90 95
Asp Ala Lys Ala Ala Glu Gln Ala Ala Glu Ser Leu Gln Gln Thr Gln
100 105 110
Pro Glu Val Ser Ser Lys Glu Ser Glu Ala Ile Gln Val Ala Glu Ala
115 120 125
Gly Ile Gly Ser Glu Gly Ser Ala Pro Ser Arg Ala Pro Ser Gln Pro
130 135 140
Glu Ala Glu His Pro Val Glu Pro Val Glu Gln Ala Pro Gly Ser Ala
145 150 155 160
Glu Ala Val His Gly Gln Asp Ser Lys Glu Leu Pro Asp Ser Val Gly
165 170 175
Lys Ala Ala Thr Gln Val Ser Ala Glu Thr Thr Gly Leu Ser Thr Pro
180 185 190
Leu Pro Val Glu Glu Met Ile Glu Asp Thr Arg Lys Arg Lys Arg Arg
195 200 205
Ser Gln Thr Pro Ile Pro Thr Pro Glu Ala Val Ala Ser Lys Arg Ala
210 215 220
Lys Ala Gln Glu Glu Ser Pro Arg Val Leu Leu Pro Glu Asp Arg Asp
225 230 235 240
Ile Met Asp Val Glu Gly Ser Pro Gly Lys Lys Ala Val Ala Val Pro
245 250 255
Ala Glu Asn Glu Gln Ala Gln Asn Gln Asn Gly Asp Asp Arg Asn Asp
260 265 270
Ala Ile Arg Arg Val Ser Ile Ser Asp Asp Val Arg Thr Arg Gly Thr
275 280 285
Ala Ser Ile Lys Gln Asp Ala Arg Phe Lys Asp Leu Phe Ala Pro Ala
290 295 300
Asp Arg Glu Gln Ile Arg Pro Arg Ser Pro Pro Ala Asp Thr Asn Met
305 310 315 320
Glu Asp Ala Glu Val Glu Pro Ala Leu His Val Ala Thr Glu Ala Leu
325 330 335
Tyr Ile Asp Gly Leu Met Arg Pro Leu Gln Pro Ala Ala Leu Lys Asn
340 345 350
His Leu Val Ser Ile Ala Thr Ala Pro Gly Ala Ser Pro Asp Pro Asp
355 360 365
Val Ile Val Asp Phe Tyr Leu Asp Pro Ile Lys Thr His Cys Phe Val
370 375 380
Lys Phe Ala Asn Ile Ser Ala Ala Ser Arg Ala Arg Thr Ala Leu His
385 390 395 400
Gly Val Val Trp Pro Asn Glu Ser Asn Arg Lys Ala Leu Phe Val Asp
405 410 415
Phe Ile Pro Gln Gln Lys Leu Gln Gln Trp Val Ala Arg Glu Glu Glu
420 425 430

```
Ser Arg Gly Arg Gly Gly Pro Pro Pro Arg Trp Glu Val Arg Tyr Asp
        435                 440                 445
Arg Thr Asp Asp Gly Val Glu Ala Val Leu Gln Glu Val Asp Leu Lys
    450                 455                 460
Ser Thr Ala Ser Arg Gln Ala Pro Gly Arg Ala Ser Thr Asp Phe Ser
465                 470                 475                 480
Arg Pro Pro Pro Leu Gly Pro Arg Ala Ser Met Gly Val Lys Asp Arg
                485                 490                 495
Arg Pro Ser Gly Pro Pro Pro Leu Glu Pro Arg Pro Arg Pro Gly Gln
            500                 505                 510
Gly Phe Lys Ala Leu Asp Asp Leu Phe Glu Ser Thr Thr Thr Lys Pro
        515                 520                 525
Lys Leu Tyr Tyr Leu Arg Val Pro Arg Glu Val Ala Asp Arg Arg Leu
    530                 535                 540
Asp Arg Phe Asp Asp Leu Leu Arg Lys Gly Ser Phe Pro Arg Arg Gly
545                 550                 555                 560
Gly Asp Glu Asn Arg Arg Ile Thr Phe Glu Asp Gly Asp Phe Phe Val
                565                 570                 575
Asp Asn Gly Pro Glu Tyr Gly Arg Gly His Gly Arg Arg Arg Gly Arg
            580                 585                 590
Gly Arg Gly Gly Gly Met Gly Asp Ser Trp Arg Asp Asp Arg Arg Gly
        595                 600                 605
Arg Asp
    610
```

<210> 31974
<211> 94
<212> PRT
<213> A.fumigatus

<400> 31974

```
Gly Lys Val Gly Leu Ser Pro Gly Leu Ala Arg Val Val Pro Asp Phe
1               5                   10                  15
Leu Lys Leu Gly Phe Ser Asn Leu Pro Glu Lys Lys Pro Glu Gly Glu
            20                  25                  30
Ala Leu Asn Asp Glu Gln Thr Leu Lys Asp Leu His Arg Leu Leu Leu
        35                  40                  45
Glu Thr His Val Ile Glu Gly Lys Leu Val Cys Gly Asn Cys Gly His
    50                  55                  60
Glu Tyr Leu Ile Lys Glu Gly Ile Ala Asn Phe Leu Leu Pro Ser His
65                  70                  75                  80
Leu Gly Leu Gly Leu Pro Asp Arg Ile Tyr Ile Val Ala Cys
                85                  90
```

<210> 31975
<211> 100
<212> PRT
<213> A.fumigatus

<400> 31975

```
Arg Tyr Ala Ile Val Cys Leu Ile Leu Ser His Leu Leu Lys Phe His
1               5                   10                  15
Phe Ser Ile Ile Leu Leu Cys Asp Leu Asp Thr Met Lys Leu Val Thr
            20                  25                  30
Ala Asn Phe Leu Thr Cys Ala Val Lys Gly Cys Lys Thr Ser Ser Ala
        35                  40                  45
```

```
Ser Phe Pro Leu His Phe Gln Asp Ala Glu Leu Glu Leu Glu Glu Leu
    50                  55                  60
Asp Phe Gln Pro Glu Phe Ile Arg Asn Ile Ile Pro Arg Val Asp Trp
65                  70                  75                  80
Asp Gly Leu Arg Val Thr Ala Asn Glu Val Arg Ser Asp Tyr Leu Leu
                85                  90                  95
Val Trp His Val
            100
```

<210> 31976
<211> 167
<212> PRT
<213> A.fumigatus

<400> 31976

```
Asn Ser Glu Gly Phe Val Phe Ala Leu Asp Lys Glu Cys Asn Val Gln
1               5                   10                  15
Val Asn Cys Glu Val Ser Arg Gly Thr Leu Ile Lys Glu Pro Phe Ala
            20                  25                  30
Thr Cys Arg Ala Ala Glu Ala Gly Asn Ser Val Val Thr Val Pro Phe
        35                  40                  45
Pro Phe Glu Phe Val Val Val Gly Gln Leu Phe Ile Cys Ile Tyr Val
    50                  55                  60
Ser Leu Cys Pro Asp Val Glu Ser Val Gly Leu Ser Val Arg Ile Thr
65                  70                  75                  80
Ser Ser Asn Val Pro Glu Ser Ile Tyr Asn Asn Ser Phe Ala Thr Ile
                85                  90                  95
Asn Leu Asp Asp Leu Cys Ser Ala Ile Arg Ser Thr Ala Met Val Asp
            100                 105                 110
Glu Ala Ser Asp Thr Ser Ser Leu Gly Gly Ile Tyr Asn Ser Val Leu
        115                 120                 125
Val Asp Ser Glu Lys Val Ala Ala Thr Tyr Pro Ala Leu Gln Val Leu
    130                 135                 140
Pro Leu Pro His Val Cys His Leu Leu Ser His Leu Phe Thr Asn Val
145                 150                 155                 160
Leu Tyr Asp His Ile Ile Arg
                165
```

<210> 31977
<211> 70
<212> PRT
<213> A.fumigatus

<400> 31977

```
Ile Ser Asn Leu Gly Ser Arg Leu Pro Val Gln Asn Met Ala Lys Glu
1               5                   10                  15
Ala Glu Ile Leu Leu Ile Phe Asp Glu Ile Leu Pro Ala Val Gln Ile
            20                  25                  30
Gln Asp Tyr Gly Phe Ile Ile Asn Asn Cys Arg Thr Arg Phe Ile Ile
        35                  40                  45
Arg His Pro Pro Phe Asp Leu Arg Asn Arg Val Phe Met Ala Leu Cys
    50                  55                  60
Ser Ser Gly Phe Val Arg
65                  70
```

<210> 31978

<211> 403
<212> PRT
<213> A.fumigatus

<400> 31978

```
Ile Ala Ser Val Glu Pro Gly Asp Met Phe Tyr Glu Glu Ser Gln His
1               5                  10                  15
Ser Glu Ser Ala Glu Leu Gly Thr Val Lys Pro Glu Asn Leu Val Gly
            20                  25                  30
Ile Gly Gly Lys Phe Leu Gly Arg Val Glu Asp Arg Ser Ile Asn Glu
        35                  40                  45
Asp Gly Glu Lys Glu Asn Met Glu Arg Leu His Ile Glu Ser Ala Ile
    50                  55                  60
Gln Gly Ala Asn Leu Gly Ile Gln Gln Pro Leu Pro Asp Glu Ser Thr
65                  70                  75                  80
Thr Thr Lys Ser His Glu Asp Pro Ile Thr Glu Ile Glu Trp Gly Val
                85                  90                  95
Ser Asn Asp Glu Pro Arg Pro Thr Val Val Asp Asp Glu Thr Ile Ile
            100                 105                 110
Leu Asp Leu Asp Gly Trp Gln Asn Leu Val Lys Asp Glu Glu Asp Leu
        115                 120                 125
Cys Phe Leu Arg His Val Leu Asp Gly Gln Ser Arg Ser Lys Val Gly
    130                 135                 140
Asn Leu Ser Ala Trp Ala Trp Arg Gln Lys Glu Ile Lys Ala Leu Asn
145                 150                 155                 160
Arg Ala Gly Glu Ser Gly Pro Val His Gln Glu Thr Arg Ile Pro Asp
                165                 170                 175
Tyr Tyr Val Cys Asn Pro Thr Gly Ala Ala Arg Thr Glu Gly Arg Lys
            180                 185                 190
Arg Ile Leu Glu Ser Glu Lys Ser Lys Tyr Leu Pro His Arg Ile Lys
        195                 200                 205
Val Gln Lys Ala Arg Glu Glu Arg Glu Ala Asn Ala Lys Ser Asp Pro
    210                 215                 220
His Ala Ser Ser Ala Ala Glu Ala Ala Arg Ile Ser Ala Ala Lys Thr
225                 230                 235                 240
Ile Ser Lys Ser Thr Ser Arg Ser Thr Arg Val Asn Asn Arg Thr Leu
                245                 250                 255
Val Ala Asp Ile Asn Ala Gln Lys Gln Ala Leu Pro Met Gln Gly Gly
            260                 265                 270
Gly Gly Asp Val Leu Arg Phe Asn Gln Leu Lys Lys Arg Lys Lys Pro
        275                 280                 285
Val Arg Phe Ala Arg Ser Ala Ile His Asn Gly Gly Leu Tyr Ala Glu
    290                 295                 300
Glu Asn Ile Ser Ala Asn Asp Met Ile Ile Glu Tyr Val Gly Glu Lys
305                 310                 315                 320
Val Arg Gln Gln Val Ala Asp Met Arg Glu Arg Gln Tyr Leu Lys Ser
                325                 330                 335
Gly Ile Gly Ser Ser Tyr Leu Phe Arg Ile Asp Glu Asn Thr Val Ile
            340                 345                 350
Asp Ala Thr Lys Arg Gly Gly Ile Ala Arg Phe Ile Asn His Ser Cys
        355                 360                 365
Thr Pro Asn Cys Thr Ala Lys Ile Ile Lys Val Asp Gly Ser Lys Arg
    370                 375                 380
Ile Val Ile Tyr Ala Leu Arg Asp Ile Gly Arg Gly Asn Ser Asp Arg
385                 390                 395                 400
Gln Ala Asn
```

<210> 31979
<211> 83
<212> PRT
<213> A.fumigatus

<400> 31979
Asn Leu Ser Lys Cys Asp Lys Ile Arg His Thr Ile Ala Tyr Leu His
1 5 10 15
Thr Leu Arg Lys Trp Val Thr Asn Phe Ile Ser Ala Phe Leu Ser Phe
20 25 30
Ile Pro Phe Lys Val Leu Phe Leu Met Tyr Ile Tyr Ile Leu Ser Leu
35 40 45
Phe Arg Val Asn Tyr Lys Ile Gln Asp Gly Lys Arg Leu Leu Ala Glu
50 55 60
Phe Ser Pro Thr Val Tyr Thr Phe Trp Asn Ile Gln Glu Ile Ala Ser
65 70 75 80
Ser Asn Thr

<210> 31980
<211> 134
<212> PRT
<213> A.fumigatus

<400> 31980
Thr His Ser Arg Ile Leu Pro Cys Leu Cys Val Lys Ser His Pro Gln
1 5 10 15
Ala Arg Thr Ala Ile Cys Ser Ala Asp Asn Ile Lys Ser Ser Phe Ser
20 25 30
Ala Thr Arg Leu Ile Pro Leu Asn Leu Asp Gln Met Leu Ser Gln Leu
35 40 45
Asn Ile Gln Leu Arg Thr Pro Thr Pro Pro Gly Ser Arg Ser Thr Asn
50 55 60
Ser Val Pro Lys Thr Pro Tyr Asn Leu Lys Gln Leu Lys Lys Gln Glu
65 70 75 80
Thr Thr Leu Lys Lys Leu Leu Arg Glu His Thr Tyr Ser Pro Pro Thr
85 90 95
Pro Thr Lys Ala Val Leu Gly Gln Ile Ile Lys Gly Cys Glu Met Ala
100 105 110
Met Asn Asn Thr Ala Leu Leu Ala Lys Glu Asn His Asp Leu His Ala
115 120 125
Ala Tyr Glu Lys His Leu
130

<210> 31981
<211> 84
<212> PRT
<213> A.fumigatus

<400> 31981
Leu Glu Pro Pro Arg Ser Arg Thr Asn Gly Ser Lys Arg Ser Ser Pro
1 5 10 15
Lys Phe Phe Pro Ser Leu Ala Pro Ser Ser Tyr Asn Thr Gln Pro Val
20 25 30

```
Arg Val Ser Leu Ala Phe Gly Ala Lys His Lys Glu Leu Trp Ser Ile
        35                  40                  45
Ile Ile Lys Val Ala Glu Pro Val Leu Thr Ser Met Asn Pro Asp Leu
    50                  55                  60
Trp Ala Arg Phe Gly Pro Ile Leu Glu Ala His Lys Ala Ala Tyr Gly
65                  70                  75                  80
Ser Val Cys Arg
```

<210> 31982
<211> 106
<212> PRT
<213> A.fumigatus

<400> 31982

```
Val Leu Phe Trp Glu Cys Gly Glu Thr Ile Lys Glu Ser Ser Glu Lys
1               5                   10                  15
His Lys His Val Ala His Lys Leu Gly Glu Trp Ser Asp Val Ser Gln
            20                  25                  30
Gly Met His Gln Ile Leu Val Trp Thr Ala Leu Gly Leu Glu Gly Val
        35                  40                  45
Gly Ala Asn Leu Gln His Thr Asn Ser Ile Pro Pro Ile Glu Ala Ala
    50                  55                  60
Ile Lys Lys Phe Ala Gly Val Pro Glu His Tyr Thr Trp Lys Ala His
65                  70                  75                  80
Leu Asn Tyr Gly Asp Lys Gln Ala Asp His Pro Glu Lys Pro Ala Lys
                85                  90                  95
Leu Pro Met Gly Glu Ile Leu Met Ile Leu
            100                 105
```

<210> 31983
<211> 85
<212> PRT
<213> A.fumigatus

<400> 31983

```
Ile Ser Val Ser Pro Leu Gly Ala Thr Ile Gly Thr Val Arg Phe Leu
1               5                   10                  15
Thr Pro Leu Pro Gly Pro Ser Ser Phe Gly Leu Arg Arg Arg Phe Phe
            20                  25                  30
Ala Lys Met Ala Val Leu Glu Thr Gln Pro Ala Pro Gln Lys Ala Pro
        35                  40                  45
Glu Ser Ala Thr Ala Glu Pro Arg Lys Lys Leu Phe Gly Arg Glu Phe
    50                  55                  60
Tyr Glu Ser Leu Gly Ser Pro Lys Tyr Ile Val Ala Pro Met Val Asp
65                  70                  75                  80
Arg Ser Glu Phe Val
                85
```

<210> 31984
<211> 261
<212> PRT
<213> A.fumigatus

<400> 31984

```
Glu Val Pro Ser Ile Leu Trp His Leu Trp Ser Thr Asp Arg Asn Leu
```

```
1               5                   10                  15
Tyr Ser Pro Cys His Ser Tyr Gln Arg Ile Arg Thr Asn His Ser Ile
            20                  25                  30
Ser Gln Ala Trp Arg Met Leu Thr Arg Ser Phe Met Pro Pro Asp Asp
        35                  40                  45
Pro Lys Pro Ile Leu Ala Tyr Ser Pro Met Tyr His Ala Arg Leu Phe
    50                  55                  60
Arg Glu Gln Ala Asn Val Arg Trp Gln His Phe Gln Pro Thr Arg Ala
65                  70                  75                  80
Gly Leu Asp Lys Asn Asp Asn Ser Leu Tyr Leu Asp Gly Asn Pro Ala
                85                  90                  95
Phe Asp Arg Pro Leu Ile Val Gln Phe Cys Ala Asn Asp Pro Asp Asp
            100                 105                 110
Phe Leu Glu Ala Ala Arg His Val Ala Pro Tyr Cys Asp Ala Val Asp
        115                 120                 125
Leu Asn Leu Gly Cys Pro Gln Gly Ile Ala Arg Lys Gly His Tyr Gly
    130                 135                 140
Ala Phe Leu Gln Glu Asp Trp Asp Leu Ile Tyr Lys Leu Ile Asn Arg
145                 150                 155                 160
Leu His Lys Glu Leu Pro Ile Pro Val Thr Ala Lys Phe Arg Ile Gln
                165                 170                 175
Glu Ser Lys Glu Lys Thr Leu Glu Tyr Ala Lys Met Ile Leu Ser Ala
            180                 185                 190
Gly Ala Ser Ile Ile Thr Leu His Gly Arg Thr Arg Glu Gln Lys Gly
        195                 200                 205
His Asn Thr Gly Leu Ala Asp Trp Ser Tyr Ile Arg Tyr Leu Arg Asp
    210                 215                 220
Asn Leu Pro Pro Glu Thr Val Ile Phe Ala Asn Gly Asn Asn Leu Asn
225                 230                 235                 240
His Asp Asp Leu Glu Arg Cys Leu Glu Ala Thr Gly Ala Asp Gly Val
                245                 250                 255
Met Ser Ala Glu Gly
            260
```

<210> 31985
<211> 138
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (133)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 31985
Ser Thr Thr Glu Pro Pro Ile Pro Pro Asn Arg Arg Phe Ala Ala Asn
1               5                   10                  15
Ile Ile Glu Phe Leu Glu Pro Ser Asn Gln His Ile Ile Ser Leu Pro
            20                  25                  30
Leu Leu Leu Lys Met Pro Leu Ser Lys Glu Asn Arg Met Gln Met Ala
        35                  40                  45
Ile Ser Ala Tyr Lys Lys Gly Gln Phe Lys Ser Lys Ala Ala Ala Ala
    50                  55                  60
Lys Val Phe Gly Val Ser Arg Glu Thr Leu Arg Asp Arg Leu Arg Gly
65                  70                  75                  80
Ile Lys Pro Arg Ala Glu Thr Arg Ala Asn Ser His Lys Leu Thr Ala
```

```
                85                  90                  95
Leu Glu Glu Glu Ala Leu Ala Lys Arg Leu Leu Asp Ala Asp Arg Arg
            100                 105                 110
Gly Phe Ser Ile Arg Pro Gln Phe Leu Arg Gly Met Ala His Ile Pro
        115                 120                 125
Thr Tyr Cys Leu Xaa Asn Pro Gly Gly Lys
    130                 135
```

<210> 31986
<211> 467
<212> PRT
<213> A.fumigatus

<400> 31986

```
Pro Pro Leu Gly Ser Ala Ala Val Glu Arg Lys Pro Leu His Arg Thr
1               5                   10                  15
Leu Thr Ile Ala Gln Ala Val Lys Ala Arg Pro Ser Gly Pro Lys Gly
            20                  25                  30
Gly Arg Pro Leu Met Ser Arg Glu Ala Arg Leu Asp Ser Ser Gln Ala
        35                  40                  45
Arg Asn Asn Lys Arg Val Arg Leu Trp Ala Ala Arg Pro Ser Lys Arg
    50                  55                  60
Arg Lys Thr Leu Ser Leu Leu Glu Thr Leu Pro Val Glu Leu Ile Glu
65                  70                  75                  80
Lys Ile Phe Leu Tyr Ser Leu Asn Val Asn Leu Pro Arg Ala Ser Pro
                85                  90                  95
Ser Leu Ala Ala Ala Val Ser Ser Glu Arg Ile Tyr Arg Val Leu Ile
            100                 105                 110
Leu Leu Gly Phe Trp Asn Asp Ser Ala Ser Glu Ala Glu Asp Pro Asp
        115                 120                 125
Ser Ala Ile Ser Arg Ile Leu Arg Pro Leu Asp Tyr Ala Pro Leu Gln
    130                 135                 140
Asp Asp Asp Arg Glu Asn Leu Gln Thr Ser Val Leu Arg Cys Arg Trp
145                 150                 155                 160
Cys Thr Met Pro Arg Leu Leu Met Gln Leu Ser Asp Met Thr Asn Leu
                165                 170                 175
Thr Ile Gln Arg His Trp Val Asn Ala Gly Ile Glu Met Thr Arg Asp
            180                 185                 190
Gln Gln Glu Ser Leu Asp Arg Phe Leu Ala Arg Glu Asn Asp Thr Ser
        195                 200                 205
Thr Tyr Glu Gly Thr Asp Lys Asp Gly Asn His Tyr Thr Leu Ser Ile
    210                 215                 220
Thr Pro Phe Val Ser Ile Asn Ile Ala Cys Gln Glu Thr Asp Glu Gln
225                 230                 235                 240
Gln Thr His Lys Ile Leu Ser Ile Lys His Phe Pro Glu Lys Leu Leu
                245                 250                 255
Leu Gly Ala Ser Gly Glu Gly Phe Ser Asp Asp His Ala Thr His Leu
            260                 265                 270
Glu Ile Met Arg Val Ala Cys Gly Leu Ser Arg Ser Asp His Leu Glu
        275                 280                 285
Thr Asp Val Ser Val Ser Arg Glu Ser Leu His Gln Gly Val His Ile
    290                 295                 300
Ala Leu Val Glu His Asn Thr Arg Ala Leu Ala Thr Leu Leu Lys Ile
305                 310                 315                 320
Asp Glu Tyr Ile Phe Arg Ser Asn Ala Ala Val Ala Gly Gly Leu Pro
                325                 330                 335
```

```
Tyr Ser Ile Pro Pro Glu His Phe Arg Thr Ala Val Arg Val Ala Arg
            340                 345                 350
Asn Asp Pro Ala Leu Phe Gln Thr Leu Leu Arg Ala Ser Ala Glu Ser
        355                 360                 365
Val Pro Ala Asp Asp Pro Asp Ile Thr Glu Trp Ala Met Asn Leu Gly
    370                 375                 380
Asp Pro Phe Gly His Trp Leu Leu Asp Leu Met Leu Arg Leu Pro Gln
385                 390                 395                 400
Gln Ile Glu Thr Ala Asn Ala Asn Pro Ala Glu Gly Ala Leu Phe Tyr
                405                 410                 415
Leu Gly Arg Ala Asn Gly His Ile Glu Leu Ala Arg Arg Tyr Leu Arg
            420                 425                 430
Asp Val Leu Asn Val Asp Glu Leu Pro Ser Trp Met Glu Ala Ser Asp
        435                 440                 445
Asp Leu Phe Arg Gln Trp Arg Val Ile Thr Thr Thr Thr Gly Ile Tyr
    450                 455                 460
Met Phe Val
465
```

<210> 31987
<211> 193
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (10)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31987

```
Ile Cys Gly Gly Lys Arg Tyr Asn His Xaa Arg His Pro Tyr Gly His
1               5                   10                  15
Tyr Phe Thr Pro Thr Phe Phe Ala Asp Val Thr Pro Ser Met Arg Ile
            20                  25                  30
Ala Gln Thr Glu Leu Phe Ala Pro Val Phe Val Leu Met Arg Ala Glu
        35                  40                  45
Ser Val Ser His Ala Ile Ser Ile Ala Asn Ser Thr Met Tyr Ala Leu
    50                  55                  60
Gly Ala Ser Val Phe Gly Tyr Asn Gln Lys Asp Val Ala Ala Cys Val
65                  70                  75                  80
Ser Gln Ile Lys Ala Gly Met Val Ser Val Asn Asp Phe Ala Ser Tyr
                85                  90                  95
Tyr Ala Val Gln Leu Pro Phe Gly Gly Val Lys Gly Ser Gly Tyr Gly
            100                 105                 110
Arg Phe Ala Gly Glu Glu Gly Leu Arg Ser Val Ser Asn Ile Lys Ala
        115                 120                 125
Val Cys Val Asp Arg Phe Pro Arg Leu Met Ala Thr Arg Ile Pro Pro
    130                 135                 140
Arg Val Asp Tyr Pro Ile Gln Lys Gly Asp Asp Asp Lys Gln Asn Gly
145                 150                 155                 160
Thr Gly Ala Trp Glu Leu Cys Lys Gly Val Val Glu Thr Gly Tyr Gln
                165                 170                 175
Leu Thr Leu Ala Gly Arg Leu Gly Gly Ile Leu Arg Leu Leu Lys Asn
            180                 185                 190
Met
```

<210> 31988
<211> 62
<212> PRT
<213> A.fumigatus

<400> 31988
Ile Gln Gly Val Phe Arg Ser Ile Gly Ala Cys Leu Met Gly Ile Val
1 5 10 15
Asn Thr Ile Gly Ala Val Leu Lys Ala Ile Ile Asn Gly Val Val Ser
20 25 30
Leu Cys Asn Ile Val Ile Ser Cys Leu Thr Cys Gly Tyr Cys Gly Asn
35 40 45
Arg Gly Arg Met Arg Ser Ser Arg His Arg Arg Ser Arg Val
50 55 60

<210> 31989
<211> 103
<212> PRT
<213> A.fumigatus

<400> 31989
Asn Tyr Val Leu Arg Ser Thr Phe Phe Ser Pro Gly Phe Tyr Ser Tyr
1 5 10 15
Ala Ala Cys Pro Phe His Asp Ile Gln Leu Ser His Ser Trp Asn Ile
20 25 30
Pro Thr Ser Tyr Ile Ile Leu Arg Pro Trp Arg Tyr Cys Asp Ile Val
35 40 45
Pro Ala Ile Tyr Ser Leu Thr Ile Pro Leu Val Gln Pro Phe Thr Met
50 55 60
Arg Pro Phe Ser Asp Thr Ser Val His Thr Thr Ala Ser Ser Ser Thr
65 70 75 80
Leu Ser Asn Thr Asp Asn Ala Ser Ser Ser Lys Pro Gln Thr Val Ile
85 90 95
His Ile Lys Thr Lys Ile Leu
100

<210> 31990
<211> 264
<212> PRT
<213> A.fumigatus

<400> 31990
Glu Asn Ile Val Ile Ala Thr Lys Val Trp Ala Pro Val Gly Arg Gly
1 5 10 15
Lys Glu Tyr Pro Leu Phe Leu Ser Asn Glu Glu Arg Asp Asn Ala Gly
20 25 30
Tyr Val Asn Glu Tyr Gly Leu Ser Arg Lys His Ile Phe Asp Ser Ile
35 40 45
Glu Ala Ser Leu Lys Arg Leu Asp Leu Pro Tyr Val Asp Leu Leu Gln
50 55 60
Ile His Arg Phe Asp Pro Asn Thr Pro Val Lys Glu Thr Met Glu Ala
65 70 75 80
Leu His Asp Val Val Lys Ser Gly Lys Val Arg Tyr Ile Gly Ala Ser
85 90 95
Ser Met Trp Ala His Gln Leu Leu Glu Tyr Gln Tyr Thr Ala Arg Met

```
            100                 105                 110
Asn Gly Trp Thr Glu Phe Ile Ser Met Gln Asn Phe His Asn Pro Ile
        115                 120                 125
Tyr Arg Glu Glu Glu Arg Glu Met Phe Pro Ala Cys Ala Lys Phe Gly
    130                 135                 140
Met Gly Ala Ile Pro Trp Ser Pro Leu Ala Met Gly Phe Leu Thr Arg
145                 150                 155                 160
Pro Trp Lys Ala Phe Glu Glu Thr Thr Arg Gly Lys Ser Leu Asn Gly
                165                 170                 175
Lys Leu Met Gly Gln Pro Phe Thr Glu Thr Asp Lys Lys Ile Ser Glu
            180                 185                 190
Thr Ile Glu Asp Ile Ala Asn Lys Arg Gly Val Ser Met Thr Ile Val
        195                 200                 205
Ser Leu Ala Trp Ser Leu Ser Lys Pro Phe Ile Thr Ala Pro Ile Val
    210                 215                 220
Gly Leu Ser Lys Lys Glu Arg Val Asp Glu Ala Ile Gln Ala Ile Asp
225                 230                 235                 240
Phe Lys Leu Thr Glu Glu Glu Ile Lys Ser Ile Asp Asp Leu Tyr Gln
                245                 250                 255
Pro Lys Lys Val Ile Gly His His
            260
```

<210> 31991
<211> 61
<212> PRT
<213> A.fumigatus

<400> 31991

```
Met Leu Thr Pro Pro Pro Phe Ser Thr Thr Lys Thr Thr Tyr Tyr Ser
1               5                   10                  15
Thr Thr Ser Ala Ser Thr Asp Phe Leu Asp Asn Phe Phe Phe Phe Leu
            20                  25                  30
Ser Ser Ile Ile Leu Gln Arg His Leu Phe Ser Pro His Leu Gly Ala
        35                  40                  45
His Tyr Ser Ala Ile Phe Thr Ile Ser Arg Pro Leu Ile
    50                  55                  60
```

<210> 31992
<211> 66
<212> PRT
<213> A.fumigatus

<400> 31992

```
Ile Thr Leu Arg Ser Pro Leu Leu Phe Pro Lys Thr Gly Arg Met Ile
1               5                   10                  15
Phe Leu Ala Leu Ser Val Leu Ile Pro Ser Phe Leu Ser Leu Leu Ala
            20                  25                  30
Phe Ile Ser Ile Arg Glu Lys Gly Ser Leu Asn Arg Gln Leu Thr Asp
        35                  40                  45
Tyr Val Ala Phe Tyr Leu Leu Ile Arg Ser Glu Gln Tyr Tyr Asn Gln
    50                  55                  60
Asp Tyr
65
```

<210> 31993
<211> 115

<212> PRT
<213> A.fumigatus

<400> 31993
Ile Ser His Ser Arg Tyr Asn His Asn Leu Ser Ser Thr Val Ser Leu
1 5 10 15
Pro Ile Asn Met Phe Thr Ala Arg Arg Leu Leu Thr Ser Ala Pro Arg
20 25 30
Ala Ile Ser Arg Arg Ala Leu Phe His Ser Thr Ala Pro Ala Phe Val
35 40 45
Gln Lys Gly Asp Ala Ile Pro Asp Leu Asp Val Leu Val Glu Ser Ser
50 55 60
Pro Gly Asn Lys Val Asn Leu Ala Lys Glu Leu Lys Gly Lys Gly Ile
65 70 75 80
Ile Ile Gly Val Pro Ala Ala Phe Ser Thr Phe Ala Ala Pro Arg Leu
85 90 95
Glu Pro Leu His Leu Leu Arg Ile Gln Ser Asp Met Arg Ser Thr Arg
100 105 110
Gly Lys Arg
115

<210> 31994
<211> 186
<212> PRT
<213> A.fumigatus

<400> 31994
Cys Ala Thr Arg Gly Ser Phe Gln Pro Arg Gly Glu Asp Lys Ile Leu
1 5 10 15
Lys Ser Pro Gly Ala Arg Lys Ile Pro Ile Phe Val Lys Asp Met Glu
20 25 30
Glu Thr Ile Asn Thr Ala Thr Gln Phe Val Ser Gln Arg Ile Cys Pro
35 40 45
Ile Phe Gln Val Ser Asn Val Thr Gly Glu Asn Leu Glu Leu Val Arg
50 55 60
Thr Phe Leu Asn Ile Leu Pro His Arg Gly Gln Tyr Asn Thr Glu Ala
65 70 75 80
Pro Phe Glu Phe Leu Ile Asn Asp Thr Phe Ser Val Pro His Val Gly
85 90 95
Thr Val Val Ser Gly Val Ala Lys Ser Gly Val Ile His Ala Gly Asp
100 105 110
Ser Val Leu Val Gly Pro Asp Ser Leu Gly Gln Phe Thr Thr Thr Thr
115 120 125
Ile Lys Ser Ile Glu Arg Lys Arg Ile Gln Val Asn Ala Cys Phe Ala
130 135 140
Gly Gln Ser Gly Ser Phe Ala Leu Lys Arg Val Arg Arg Lys Glu Val
145 150 155 160
Arg Lys Gly Met Val Val Leu Lys Lys Leu Glu Gln Pro Pro Lys Val
165 170 175
Tyr Arg Glu Phe Val Ala Glu Gly Thr Phe
180 185

<210> 31995
<211> 96
<212> PRT
<213> A.fumigatus

<400> 31995
Leu Glu Pro Val Leu Ile Leu Ser His Ala Thr Thr Ile Lys Pro Arg
1 5 10 15
Tyr Gln Ala Met Leu His Val Gly Ala Val Ser Gln Thr Cys Ser Val
20 25 30
Ile Asp Ile Asp Arg Pro Phe Ile Arg Thr Gly Asp Arg Ala Leu Val
35 40 45
Ala Phe Arg Phe Ile Gln Arg Pro Glu Phe Leu Ala Pro Gly Asp Arg
50 55 60
Val Leu Phe Arg Glu Gly Lys Thr Lys Gly Leu Gly Ile Val Lys Ser
65 70 75 80
Val Gly Tyr Asp Pro Asp His Pro Leu Asn Pro Glu Ala Lys Thr Lys
85 90 95

<210> 31996
<211> 520
<212> PRT
<213> A.fumigatus

<400> 31996
Phe Tyr Ser Asn Ser Phe Gly Ser Ala Trp Arg Ser Phe Trp His Thr
1 5 10 15
Met Thr Ser Tyr Asp Arg His Ala Ser His Asp Ser Pro Tyr Arg Thr
20 25 30
Gly Arg His Val Pro Leu Ser Gln Ser Arg His Glu Pro Leu Thr Ser
35 40 45
Ile Ala Thr Ser Ala Ile Glu Ser Arg Pro Asp Leu Thr Asp Thr Phe
50 55 60
Glu Asp Asp Gln Pro Lys Gly Ser Thr Asn Ser Asn Ser Asn Gly Trp
65 70 75 80
Thr Gly Ser Pro Thr Gly Val Gly Ser Pro Asn Arg Pro Tyr Ser Pro
85 90 95
Gly Leu Arg Ser Leu Ser Ser Gln Lys Arg Arg Ser Thr Glu Arg Gly
100 105 110
Ala Asp Gly Ala Pro Glu Ile Gln Met Gln Ser Phe His Asp Gly Ala
115 120 125
Pro Pro Pro Pro Pro Val Ala His Ser Trp Arg Lys Ile Asp Arg Trp
130 135 140
Leu Glu Asn Asn Tyr Glu Glu Leu Tyr Asp Asn Leu Cys Glu Gly Cys
145 150 155 160
Thr Gln Asn Asp Ile Asn Glu Leu Glu His Glu Leu Asp Cys Ser Leu
165 170 175
Pro Leu Glu Val Arg Glu Ser Leu Met Ile His Asp Gly Gln Glu Arg
180 185 190
Pro Gly Leu Pro Thr Gly Val Ile Phe Gly Cys Met Leu Leu Asp Cys
195 200 205
Glu Glu Ile Val Gln Glu Trp Lys Asn Trp Arg Thr Val Asn Glu Glu
210 215 220
Phe Leu Ser Asn Ser Thr Met Met Asn Pro Pro Pro Lys Ala Thr Ala
225 230 235 240
Ser Ser Ser Ser Ala Val Pro Pro Leu Gln Gly Ala Asn Pro Leu Trp
245 250 255
Arg Gln Glu Leu Leu Asp Arg Gln Asp Ser Gln Pro Pro Gly Ala Val
260 265 270
Gln Lys Ala Tyr Ala His Pro Ala Trp Ile Pro Leu Ala Arg Asp Trp

```
        275                 280                 285
Gly Gly Asn Asn Ile Ala Ile Asp Leu Ala Pro Gly Pro Ala Gly Lys
    290                 295                 300
Trp Gly Gln Val Ile Ile Phe Gly Arg Asp Tyr Asp Cys Lys Tyr Val
305                 310                 315                 320
Val Ala Arg Ser Trp Ala Ala Phe Leu Ala Val Leu Ala Asp Asp Ile
                325                 330                 335
Cys Ser Gly Lys Val Ser Val Asp Glu Glu Thr Asn Glu Leu Lys Leu
            340                 345                 350
Leu Glu Phe Lys Gly Gln Asn Val Glu Pro Pro Tyr Leu Glu Ile Leu
        355                 360                 365
Arg Trp Arg Thr Asp Gln Lys Tyr Gly Arg Arg Ala Pro Arg Arg Lys
    370                 375                 380
Ala Pro Asn Gly Leu Gly Leu Asn Thr Asn Ser Arg Pro Gly Lys Glu
385                 390                 395                 400
Ser Pro Tyr Gly Ser Pro Thr Pro Ser Glu Glu Arg Gly Arg Ser Pro
                405                 410                 415
His Arg Phe Pro Asn Arg Gly Ser Thr Gln Ser Pro Lys Thr Gln Phe
            420                 425                 430
Gly Val Ser Ser Pro Leu Ala Arg Val Thr Glu Glu Ala Thr Ser Pro
        435                 440                 445
Val Asn Thr Ser Ala Glu Val Glu Met Pro Glu Asp Ala Phe Lys Glu
    450                 455                 460
His Arg Lys Glu Pro Glu Thr Asp Asp Leu Met Glu Val Val Thr Pro
465                 470                 475                 480
Gln Ile Ser Gly Lys Glu Asn Gln Asp Leu Thr Asp Lys His Asp Glu
                485                 490                 495
Trp Lys Ser Pro Lys Pro Glu Lys Val Gln Arg Arg Glu Ser Ser Gln
            500                 505                 510
Gly Thr Thr Ala Val Ser Glu Thr
        515                 520
```

<210> 31997
<211> 139
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (8)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 31997

```
Pro Ser Ala Pro Ser Gly Glu Xaa Ala Thr Arg Asp His Glu Val Arg
1               5                   10                  15
Phe Ala Arg Val Asp Val Arg Asn Thr Pro Phe Val Val Asn Lys Leu
            20                  25                  30
Asn Ile Arg Val Leu Pro Cys Val Ile Gly Phe Lys Asp Gly Ile Val
        35                  40                  45
Val Glu Arg Val Val Gly Phe Glu Gly Leu Gly Ala Gly Gly Arg Asp
    50                  55                  60
Gly Ala Asp Ser Phe Asp Ile Ala Thr Leu Glu Lys Arg Leu Leu Trp
65                  70                  75                  80
Lys Gly Ile Leu Thr Gln Thr Lys Phe Lys Asn Asn Glu Asp Asp Ser
                85                  90                  95
Asp Ile Ser Glu Gly Gly Ser Gly Asp Glu Gly Ser Asn Arg Arg Arg
```

```
            100                 105                 110
Pro Cys Thr Gly Arg Arg Thr Ile Arg Ser Gly Asn Gly Arg His His
        115                 120                 125
Gly Gly Asp Asp Asp Asp Asp Asp Asp Trp Gly
    130                 135
```

<210> 31998
<211> 478
<212> PRT
<213> A.fumigatus

<400> 31998

```
Ala Ala His Tyr Pro Leu Lys Asp Cys Gly Gln Thr Leu Gln Arg Pro
1               5                   10                  15
Phe Thr Ser Thr Met Pro Pro Pro Lys Leu Ser Tyr Gly Leu Asn Leu
            20                  25                  30
Pro Ser Lys Lys Ala Pro Ile Ser Lys Leu Gly Pro Pro Gly Ser Gln
        35                  40                  45
Lys Arg Lys Lys Thr Ile Phe Asp Ser Asp Ser Glu Gly Asp Asn Gln
    50                  55                  60
Asn Asp Ala Gly Asp Gly Gly Gly Asp Gly Pro Ile Glu Ile Thr Thr
65                  70                  75                  80
Ile Gly Gly Leu Glu Glu Pro Pro Arg Pro Ser Thr Asn Glu Arg Gln
                85                  90                  95
Thr Thr Glu Pro Pro Ala Lys Arg Lys Pro Leu Ala Gly Pro Pro Thr
            100                 105                 110
Gly Lys Pro Asn Ile Lys Pro Leu Ser Lys Asn Ser Ile Phe Ala Asp
        115                 120                 125
Gly Glu Glu Thr Gln Glu Pro Gln Ala Met Pro Leu Gly Leu Asn Pro
    130                 135                 140
Ala Lys Asn Lys Ser Ser Ala Pro Pro Thr Ala Glu Leu Thr Asn Leu
145                 150                 155                 160
Ser Ala Leu Arg Ser Ser Lys Lys His Ala Glu Asp Ala Gln Gln Leu
                165                 170                 175
Asp Pro Thr Ile Tyr Ser Tyr Asp Ala Ile Tyr Asp Ser Leu His Thr
            180                 185                 190
Ala Lys Ser Asp Lys Ala Lys Ala Ala Ser Ala Asp Ala Lys Asn Asp
        195                 200                 205
Gly Pro Arg Tyr Met Thr Ser Leu Leu Arg Ser Ala Glu Ile Arg Lys
    210                 215                 220
Arg Asp Gln Leu Arg Ala Arg Asp Arg Leu Leu Ala Lys Glu Arg Glu
225                 230                 235                 240
Ala Glu Gly Asp Glu Phe Ala Asp Lys Glu Lys Phe Val Thr Ser Ala
                245                 250                 255
Tyr Lys Ala Gln Gln Glu Glu Leu Arg Arg Ile Glu Gln Glu Glu Ala
            260                 265                 270
Glu Arg Glu Arg Gln Glu Glu Glu Arg Arg Lys Gln Asn Gly Gly Ala
        275                 280                 285
Gly Met Val Gly Phe Tyr Arg Asp Met Leu Ser Arg Asp Glu Gln Arg
    290                 295                 300
His Glu Glu Val Val Lys Ala Ala Glu Glu Ala Ala Arg Arg Val Gln
305                 310                 315                 320
Ala Gly Glu Ile Pro Ala Asp Glu Ala Ala Ala Glu Ala Glu Ala Ser
                325                 330                 335
Lys Glu Lys Thr Glu Ala Gln Ile Ala Ala Glu Leu Asn Ala Lys Gly
            340                 345                 350
```

```
Ala His Ile Ala Ile Asn Asp Glu Gly Glu Ile Val Asp Lys Arg Gln
        355                 360                 365
Leu Leu Ser Ala Gly Leu Asn Val Ala Pro Lys Pro Lys Pro Ser Ala
    370                 375                 380
Ser Ala Ser Ala Ala Ala Ala Ala Ala Arg Ala Ala Ala Asn Lys Pro
385                 390                 395                 400
Arg Leu Asp Ser Gly His His Ala Ala Arg Thr Asn Gln Arg Ala Arg
                405                 410                 415
Gln Thr Glu Met Ile Ala Arg Gln Leu Glu Glu Lys Ala Arg Gln Glu
            420                 425                 430
Ala Glu Ala Glu Ala Ala Arg Gln Arg Glu Ile Ala Glu Arg Thr Arg
        435                 440                 445
Thr Arg Lys Thr Glu Thr Asp Val Leu Ser Ala Lys Glu Arg Tyr Leu
    450                 455                 460
Ala Arg Lys Arg Glu Arg Glu Glu Ala Ala Lys Lys Gly Ser
465                 470                 475
```

<210> 31999
<211> 92
<212> PRT
<213> A.fumigatus

<400> 31999

```
Ala Arg Thr Pro Ser Leu Pro Thr Gly Lys Arg Pro Lys Asn His Arg
1               5                   10                  15
Gln Cys Arg Trp Ala Ser Thr Pro Gln Lys Thr Asn Pro Ala Arg His
            20                  25                  30
Pro Pro Pro Ser Ser Gln Thr Phe Pro Pro Ser Ala Val Ala Arg Asn
        35                  40                  45
Thr Pro Arg Thr Pro Asn Ser Leu Thr Pro Pro Ser Thr Pro Thr Thr
    50                  55                  60
Pro Ser Thr Thr Ala Cys Ile Pro Pro Asn Leu Thr Lys Pro Lys Pro
65                  70                  75                  80
Leu Pro Arg Thr Pro Lys Thr Thr Gly Arg Gly Thr
                85                  90
```

<210> 32000
<211> 263
<212> PRT
<213> A.fumigatus

<400> 32000

```
Gly Arg Gly Arg Arg Val Arg Arg Gln Gly Glu Val Arg Asp Val Arg
1               5                   10                  15
Val Gln Gly Ala Ala Gly Gly Ala Ala Ala Asp Arg Ala Gly Arg Ser
            20                  25                  30
Arg Ala Gly Thr Ala Gly Gly Gly Ala Ala Glu Ala Glu Arg Arg Gly
        35                  40                  45
Gly Asp Gly Arg Val Leu Pro Gly His Ala Ile Ala Arg Arg Ala Ala
    50                  55                  60
Ala Arg Gly Ser Arg Gln Gly Cys Arg Gly Gly Arg Ala Thr Gly Ala
65                  70                  75                  80
Gly Gly Arg Asp Pro Ser Arg Arg Ser Arg Arg Gly Gly Gly Ser Lys
                85                  90                  95
Gln Gly Lys Asp Arg Gly Ala Asp Arg Arg Gly Ala Gln Arg Gln Gly
            100                 105                 110
```

```
Arg Ala His Arg His Gln Arg Arg Gly Arg Asn Arg Arg Gln Ala Ala
        115                 120                 125
Ala Ala Val Arg Gly Ala Glu Arg Arg Ala Gln Ala Gln Ala Val Arg
    130                 135                 140
Leu Gly Glu Arg Arg Cys Gly Cys Cys Ser Cys Gly Cys Gln Gln Ala
145                 150                 155                 160
Ala Ser Arg Leu Gly Ala Pro Arg Gly Ala Asp Glu Pro Ala Arg Pro
                165                 170                 175
Ser Asp Gly Asp Asp Arg Ala Thr Ala Arg Gly Glu Gly Pro Thr Gly
            180                 185                 190
Ser Arg Gly Arg Gly Arg Ala Thr Ala Gly Asp Arg Gly Ala His Ala
        195                 200                 205
Tyr Ser Gln Asn Gly Asp Gly Cys Ala Glu Arg Glu Gly Ala Ile Ser
    210                 215                 220
Gly Glu Lys Ala Gly Ala Arg Arg Ser Gly Gln Glu Gly Val Val Ala
225                 230                 235                 240
Leu Leu Val Tyr Phe Phe Ala Ser Ala Leu Thr Arg Cys Leu Asn Arg
                245                 250                 255
Arg Lys Gly Arg Asn Ser Ala
            260
```

<210> 32001
<211> 80
<212> PRT
<213> A.fumigatus

<400> 32001

```
Leu Pro Val Pro Lys Met Ser Tyr Tyr Phe Thr Ile Leu Ser Pro Thr
1               5                   10                  15
Asp Val Pro Leu Phe Asn Ile Ala Phe Gly Thr Ser Lys Gly Gly Gly
            20                  25                  30
Asp Gly Ile Ala Arg Phe Arg Phe Pro Asp Thr Ala Gln Tyr Met Asn
        35                  40                  45
Gln Phe Ile Ile His Ser Ser Leu Asp Ile Val Glu Glu Ala Gln Trp
    50                  55                  60
Met Asn Gly Asn Met Tyr Gly Pro Pro Tyr Ser Asn Leu Thr Asp Ile
65                  70                  75                  80
```

<210> 32002
<211> 125
<212> PRT
<213> A.fumigatus

<400> 32002

```
Thr Ser Lys Ala Thr Thr Pro Ser Trp Pro Leu Leu Leu Ala Pro Ala
1               5                   10                  15
Phe Ser Pro Asp Ile Ala Pro Ser Arg Ser Ala His Pro Ser Pro Phe
            20                  25                  30
Cys Glu Tyr Ala Cys Ala Pro Arg Ser Pro Ala Val Ala Arg Pro Arg
        35                  40                  45
Pro Arg Leu Pro Val Gly Pro Ser Pro Leu Ala Val Ala Arg Ser Ser
    50                  55                  60
Pro Ser Asp Gly Arg Ala Gly Ser Ser Ala Pro Arg Gly Ala Pro Ser
65                  70                  75                  80
Arg Asp Ala Ala Cys Trp Gln Pro His Glu Gln Gln Pro Gln Arg Arg
                85                  90                  95
```

```
Ser Pro Arg Arg Thr Ala Trp Ala Trp Ala Arg Arg Ser Ala Pro Arg
            100                 105                 110
Thr Ala Ala Ala Ala Cys Arg Arg Phe Arg Pro Arg Arg
        115                 120                 125

<210> 32003
<211> 151
<212> PRT
<213> A.fumigatus

<400> 32003
Arg Leu Pro Arg Ala Ala Ala Arg Leu Ala Ile Ala Cys Pro Gly Arg
1               5                   10                  15
Thr Arg Pro Ser Pro Pro Arg Arg Ser Ala Ser Ala Ala Pro Pro Pro
            20                  25                  30
Ala Val Pro Ala Leu Leu Leu Pro Ala Arg Ser Ala Ala Ala Pro Pro
        35                  40                  45
Ala Ala Pro Cys Thr Arg Thr Ser Arg Thr Ser Pro Cys Arg Arg Thr
    50                  55                  60
Arg Arg Pro Leu Pro His Ala Leu Trp Arg Ala Ala Cys Pro Ala Arg
65                  70                  75                  80
Ala Ala Gly Pro Ala Cys Gly Ser Leu His Cys Ala Ile Ala Arg Ser
                85                  90                  95
Cys Thr Ala Ala Arg Arg Phe Trp Arg Pro Arg Lys Arg Leu Trp Leu
            100                 105                 110
Cys Gln Ile Trp Arg Tyr Ala Gly Cys Arg Arg Trp Arg Arg Arg Ser
        115                 120                 125
Arg Trp Trp Gly Gln Ala Val Gly Arg Pro Arg Arg Val Ser Cys Tyr
    130                 135                 140
Cys Gly Gly Arg Lys Gly Leu
145                 150

<210> 32004
<211> 84
<212> PRT
<213> A.fumigatus

<400> 32004
Thr Arg Val Glu Tyr Met Glu Lys Gly Gly Asp Ile Gly Arg Arg Gly
1               5                   10                  15
Glu Arg Lys Lys Asn Glu Ile Pro Tyr Thr Leu Ser Tyr Thr Gln Gln
            20                  25                  30
Thr Ser Leu Cys Leu Trp Arg Gly Trp Lys Arg Leu Leu Ala Asp Pro
        35                  40                  45
Ser Leu Pro Tyr Ile Gln Leu Gly Gly Asn Thr Ile Val Gly Leu Ser
    50                  55                  60
Trp Glu Val Ser Ser Ser Ile Cys Thr Met Thr Gln Thr Ala Cys Thr
65                  70                  75                  80
Ala Glu Glu Gly


<210> 32005
<211> 64
<212> PRT
<213> A.fumigatus
```

<400> 32005
Asn Cys Glu Ala Asn Ala Glu Ala Cys Thr Val Tyr Tyr Lys Ala Gly
1 5 10 15
Asn Ile His His Asn Trp Ser Leu Thr Phe Val Phe Ser Ser Val Ser
20 25 30
Gly Ser Met Phe Leu Gln Phe Leu Ala Ile Gly Thr Pro Asp His Tyr
35 40 45
Ser Ser Phe Leu Ile Gly Arg Cys Arg Gly Ser His Gly Leu Ser Val
50 55 60

<210> 32006
<211> 128
<212> PRT
<213> A.fumigatus

<400> 32006
Val Ile Val Asp Val Gln Pro Pro Phe Ser Cys Tyr Val Tyr Arg Gly
1 5 10 15
Tyr Tyr Gly Ala Ala Thr Gly Lys Gly Arg Gln Ala Ala Lys Ala Glu
20 25 30
Leu Glu Lys Leu Asp Leu Ala Ser Glu Lys Leu Thr Leu Leu Glu Ala
35 40 45
Val Arg Glu Ala Ala Arg Ile Ile Tyr Val Ala His Glu Asp Ser Lys
50 55 60
Asp Lys Glu Phe Glu Leu Glu Met Ser Trp Ile Ser Ser Leu Asp Gly
65 70 75 80
Pro Thr Lys Gly Lys His Glu Ala Val Pro Arg Glu Leu Leu Glu Glu
85 90 95
Ala Glu Lys Ala Ala Lys Arg Ala Leu Glu Gly Glu Asp Glu Asp Glu
100 105 110
Glu Glu Thr Thr Lys Asn Asp Gly Asn Gly Gly Glu Arg Met Glu Glu
115 120 125

<210> 32007
<211> 82
<212> PRT
<213> A.fumigatus

<400> 32007
Val Pro Trp Gly Tyr Gly Asp Leu Phe Asn Gly Asp Arg Phe Cys Gln
1 5 10 15
Ile Ala Trp Glu Ile Asn Val Glu Ser Leu Ser Asn Ser Lys Pro Ile
20 25 30
Ser Asn Lys Leu Gln Arg Asn Asn Val Glu Lys Ser Leu Lys Ala Val
35 40 45
Asn Gly Leu Trp Asp Leu Asn Leu Phe Gly Leu Gly Gly Arg Glu Leu
50 55 60
Trp Val Val Met Val Ala Asn His Asn Gly Thr Thr Thr Ala Ser Asn
65 70 75 80
His Trp

<210> 32008
<211> 96
<212> PRT
<213> A.fumigatus

<400> 32008
Gly Pro Ile Pro Ile Ser Ala Leu Ala Asn Arg Leu Gly Ser Tyr Val
1 5 10 15
Gln Ala Tyr Thr Leu Tyr Ser Ser Val Arg Pro Phe Gly Val Thr Ala
20 25 30
Ile Val Gly Gly Trp Asp Ser Asp Thr Glu Leu Ala Val Asp Gly Gln
35 40 45
Val Gly Thr Gly Pro Ala Ala Gly Ser Gly Gly Lys Thr Ser His Ala
50 55 60
Lys Val Gly Gly Pro Gly Leu Tyr Met Ile Glu Pro Ser Gly Leu Tyr
65 70 75 80
Trp Val Ser Asp Arg Gly Arg Ser Thr Ser Phe Leu Val Leu Cys Leu
85 90 95

<210> 32009
<211> 121
<212> PRT
<213> A.fumigatus

<400> 32009
Arg Tyr Leu Pro Leu Leu Ile Ala Val Arg Leu Asn Asn Phe Ser Phe
1 5 10 15
Tyr Pro Val Ser Ser Leu Gln Thr Lys Phe His Gly Gly Phe Thr Pro
20 25 30
Ile Leu Thr Met Ile Val His Ser Leu Leu Ala Lys Thr Ser Ser Phe
35 40 45
Gln Ala Leu Phe Phe Arg Gln Asn Ser Glu His Ser Glu Asn Tyr Trp
50 55 60
His Ala Ser Ile Lys Leu Asn Thr His Gln Thr Met Arg His Arg Ile
65 70 75 80
Arg Asn Val Leu Lys Met His Cys Leu Ser Leu Asp Glu Asn Thr Asp
85 90 95
Ser Asn Asp Gly Val Lys Arg Leu Ser Cys Ser Arg Ser Trp Arg Cys
100 105 110
Leu Thr Gln Val Cys Ser Arg Gly Arg
115 120

<210> 32010
<211> 89
<212> PRT
<213> A.fumigatus

<400> 32010
Leu Ser Leu Pro Pro Ala Phe Ile Leu His Thr Ser Asn His Ser Pro
1 5 10 15
Val Ile Ala Arg Gly Gly Arg Pro Ile Val Ile Cys Asn His Asp Asp
20 25 30
Pro Glu Phe Ser Ser Ala Gln Thr Glu Lys Ile Glu Val Pro Lys Thr
35 40 45
Val Asp Cys Leu Gln Gly Leu Leu Asn Val Ile Pro Leu Gln Leu Ile
50 55 60
Ala Tyr Trp Leu Ala Val Gly Glu Gly Leu Asn Val Asp Phe Pro Arg
65 70 75 80
Asn Leu Ala Lys Ser Val Thr Val Glu
85

<210> 32011
<211> 141
<212> PRT
<213> A.fumigatus

<400> 32011
Ser Glu Ile Phe Thr Arg Ile Tyr Thr Ala Ser Gln Leu Gln Ala Ala
1 5 10 15
Lys Gly Ser Ser Ser Ala Gly Gly Ile Ser Ala Thr Asp Leu Leu Ser
20 25 30
Ser Ser Thr Ala Asp Leu Ser Lys Thr Ser Pro Thr Ser Thr Ala Ala
35 40 45
Lys Pro Phe Asp Ala Ile Ile Ala Ile Gly Val Leu Ile Lys Gly Glu
50 55 60
Thr Met His Phe Glu Tyr Ile Ala Asp Ala Val Ser His Gly Leu Met
65 70 75 80
Arg Val Gln Leu Asp Thr Gly Val Pro Val Ile Phe Gly Val Leu Thr
85 90 95
Val Leu Thr Glu Glu Gln Gly Leu Glu Arg Ala Gly Leu Gly Lys Lys
100 105 110
Gly Met His Asn His Gly Glu Asp Trp Gly Lys Ala Ala Val Glu Leu
115 120 125
Gly Leu Lys Arg Arg Asp Trp Val Glu Gly Lys Ile Val
130 135 140

<210> 32012
<211> 84
<212> PRT
<213> A.fumigatus

<400> 32012
Ser Leu Thr Ala Gly Thr Arg Ser Arg Ser Gly Ser Tyr Leu Thr Ile
1 5 10 15
Asn Ser Lys Phe Gly Ile Arg Ile Pro Thr Ser Asp Asn Ser Cys Asn
20 25 30
Pro Lys Trp Ser Tyr Thr Gly Ile Glu Ser Val Ser Leu Asp Ile Thr
35 40 45
Ala Lys Thr Ile Gly Gln Gly Gly Asp Arg Asp Gly Ser Leu Glu Tyr
50 55 60
Ala Ser Pro Arg Gly Ser Phe Val Ser Ser Ser Arg His Glu Val Thr
65 70 75 80
Thr Val Trp Asp

<210> 32013
<211> 67
<212> PRT
<213> A.fumigatus

<400> 32013
Arg Val Cys Leu Cys Phe Ile Ser Leu Ser Lys Gly Ser Gly Leu Arg
1 5 10 15
Val Ala Ile Val His Ala Arg Trp Asn Met Ala Ile Ile Gln Pro Leu
20 25 30
Val Glu Gly Ala Lys Lys Ser Leu Leu Ala Ala Gly Val Leu Glu Glu

```
        35                  40                  45
Asp Ile Thr Leu Glu Thr Val Pro Gly Ser Tyr Glu Leu Pro Phe Ala
    50                  55                  60
Ala Gln Arg
65

<210> 32014
<211> 493
<212> PRT
<213> A.fumigatus

<400> 32014
Thr Pro Lys Lys Thr Arg Val Leu Pro Phe Arg Asp Gly Phe Asp Asp
1               5                  10                  15
Asp Glu Ile Met Ala Ile Ser Pro Ser Lys Ser Ala Lys Ser Lys Arg
            20                  25                  30
Thr Thr Pro Thr Gly Pro Gly Lys Lys Lys Arg Lys Leu Asp Ser Gly
        35                  40                  45
Ser Pro Thr Pro Leu Pro Leu Cys Gln Pro Ala Glu Leu Val Pro Glu
    50                  55                  60
Pro Pro Glu Asp Leu Phe Asp Glu Glu Met Met Asp Asp Val Met Val
65                  70                  75                  80
Asp Glu Pro Val Pro Arg Arg Glu Asp Arg Asn Ala Glu Leu Met Lys
                85                  90                  95
Ser Ile Leu Asn His Lys Thr Tyr Pro Asn Glu Glu Cys Asp Ile Glu
            100                 105                 110
Val Leu Ser Gln Met Ala Phe Pro Ser Glu Pro Arg Arg Lys Leu Ser
        115                 120                 125
Thr Ile Val Leu Glu Glu Thr Ala Arg Leu His Ser Gly Asn Tyr Val
    130                 135                 140
Val Glu Tyr Ala Gln Val Ile Ala Ser Leu Trp Ser Arg Ala Leu Lys
145                 150                 155                 160
Glu Lys Phe Phe Lys Pro Val Pro Met Phe Met Glu Ile Thr His His
                165                 170                 175
Leu Leu Ala Leu Asp Ala Pro Ser Cys Val Pro Asp Met Ile Asp His
            180                 185                 190
Leu Val Pro Val Leu Gln Glu Ser Gly Asp Ile Asn Gly Ile Pro Arg
        195                 200                 205
Phe Arg Asn Ser Pro Val Ser Arg Gln Asn Leu Gly Gln Val Arg Gln
    210                 215                 220
Thr Pro Leu Ser Gln Leu Glu Val Leu Val Asp Ser Thr Glu Ala Leu
225                 230                 235                 240
Ser Leu Leu Tyr Arg Met Ala Tyr Leu Cys Ile His Met Glu Arg Thr
                245                 250                 255
Met Glu Arg Phe Trp Arg His Met Arg Tyr Asp Phe Val Leu Met Met
            260                 265                 270
Leu Asn Cys Ser Gln Pro Ile Arg Asp Ile Thr Leu Met Leu Asn Leu
        275                 280                 285
Leu Ser Thr Ser Ile Arg Ala Glu Ser Phe Gly Ser Val Gln Glu Thr
    290                 295                 300
Gln Gln Asp Gln Leu Ala Asn Glu Asn Tyr Ile Val Asp Arg Val Ala
305                 310                 315                 320
Asn Leu Leu Ser Glu Thr Pro Gln Pro Asp Glu Gly Gln Pro Pro Tyr
                325                 330                 335
Thr Ala Ala Asp Ile Cys Ser Met Arg Leu Gln Ala Met Tyr Phe Leu
            340                 345                 350
```

```
Thr Ser Val Ala Phe Asn Pro Val Ala Pro Ala Ser Glu His Gly Ser
        355                 360                 365
Ser Val Ile Ala Gln His Pro Thr Val Leu Ala Arg Met Ile Arg Ala
    370                 375                 380
Met His Asp Glu Leu Asp Ala Leu Tyr Thr Tyr Pro Pro Glu Arg Asp
385                 390                 395                 400
Leu His Ala Thr Met Val Asn Gly Leu Met Arg Leu Val Tyr Gly Val
                405                 410                 415
Ile Arg Arg His Lys Asn Val Asp Leu Gln Ser Lys Leu Cys Arg Val
            420                 425                 430
Ala Gly Gly Lys Gln Lys Phe Leu Val Val Leu Thr Arg Leu Ala Phe
        435                 440                 445
Ser Glu Gly Pro Ile Leu Glu Gly Gly Ile Asp Asp Glu Thr Val Glu
    450                 455                 460
Met Ala His Glu Ile Leu Asp Asp Ala Val Thr Pro Gln Glu Ala Glu
465                 470                 475                 480
Ala Leu Leu Glu Ala Phe Pro Ser Ala Lys Arg Asp Asp
                485                 490
```

<210> 32015
<211> 173
<212> PRT
<213> A.fumigatus

<400> 32015

```
Trp Val Met Glu Asp Lys Asp Asp Asp Phe Phe Ser Asp Asp Gly Leu
1               5                   10                  15
Glu Asp Leu Pro Pro Ser Thr Leu Leu Gln Leu Glu Gln Asn Ala Tyr
            20                  25                  30
Leu Ala Thr Gln Ala Gln Lys Pro Ala Gln Ser Glu Ala Ser Ile His
        35                  40                  45
Thr Ala Pro Thr Ser His Ala Gln Val Asp Arg Gln Phe Ala Val Ala
    50                  55                  60
Glu Ser Arg Ser Ile Pro Ile Asn Ala Thr Leu Lys Pro Pro Ala Arg
65                  70                  75                  80
Leu His Thr Gly Leu Thr Asn Asp Tyr Asp Ser Leu Asp Val Gly Glu
                85                  90                  95
Phe Asp Ala Glu Val Leu Asp Gly Asp Ser Gly Phe Pro Val Ala Leu
            100                 105                 110
Asp Gln Pro Pro Ala Ser Ala Gly Gln Ala Val Pro Leu Arg Asn Glu
        115                 120                 125
Ser Ala Leu Glu Pro Met Asp Ile Glu Glu Gly Arg Gly Asn Pro Tyr
    130                 135                 140
Gln Ala Asn Ile Tyr Glu Ala Tyr Asn Ala Leu Glu Glu Lys Val Ser
145                 150                 155                 160
Val Val Glu Ala Tyr Thr Thr Ala Gly Phe Trp Leu Met
                165                 170
```

<210> 32016
<211> 162
<212> PRT
<213> A.fumigatus

<400> 32016

```
Cys Tyr Arg Arg Trp Ser Leu Thr Tyr Trp Thr Ser Ser Asp Asp Arg
1               5                   10                  15
```

```
Val Arg Gly Gly Ser Ser Tyr Ser Thr Leu Thr Ile Leu Pro Asn Asn
            20                  25                  30
Thr Val Gln Phe His Gly His Leu Asp Ile Thr Thr Leu Gly Arg Ala
        35                  40                  45
Gly Phe Thr Ser Gln Arg Thr Thr Asp Asp Met Ser Trp Asp Leu Ser
    50                  55                  60
Asp Ala Asp Gly Leu Glu Leu Asp Val Ala Gly Ser Asp Gly Lys Val
65                  70                  75                  80
Tyr Thr Leu Val Val Lys Asp Arg Leu Leu Pro Thr Arg Ala Asp Gly
                85                  90                  95
Arg Glu Gln Ser Thr Ile Ser Trp Glu Tyr Asp Phe Gln Thr Val Glu
            100                 105                 110
Arg Ala Ile Val Arg Val Arg Trp Glu Asp Leu Arg Ala Ser Tyr Arg
        115                 120                 125
Gly Arg Lys Val Asp Ala Glu Pro Leu Asp Leu Arg Asn Val Lys Arg
    130                 135                 140
Ile Ser Ile Met Val Arg Arg Tyr Val Phe Ile Leu Gln Arg Lys Ser
145                 150                 155                 160
Arg Tyr
```

Application No. 10/501,252

<210> 32017
<211> 92
<212> PRT
<213> A.fumigatus

<400> 32017

```
Val Thr Leu Leu Arg Ser Asp Ile Ala Asn Val Ile Asp Asp Gly Pro
1               5                   10                  15
Ser His Thr Gly Pro Pro Pro Thr Thr Ala Ser Gly Ala Val Pro Arg
            20                  25                  30
Ile Pro Pro Ser Pro Phe Ser Gln Thr Thr Gln Ser Asn Ser Thr Asp
        35                  40                  45
Ile Trp Thr Leu Pro Pro Ser Ala Glu Gln Gly Leu Pro Pro Ser Ala
    50                  55                  60
Gln Gln Met Ile Cys Pro Gly Thr Tyr Pro Thr Pro Thr Gly Ser Ser
65                  70                  75                  80
Trp Thr Ser Pro Val Arg Met Gly Lys Cys Thr Leu
                85                  90
```

<210> 32018
<211> 80
<212> PRT
<213> A.fumigatus

<400> 32018

```
Trp Leu Arg Thr Leu Leu Ile Gln Met Leu Pro Cys Tyr Ala Arg Lys
1               5                   10                  15
Arg Ser Val Ser Cys Leu Arg Lys Tyr Thr Lys Phe Ile Met Ile Met
            20                  25                  30
Thr Tyr Cys Arg Ser Thr Asn Met Leu Asp Arg Arg Met Met Ser Trp
        35                  40                  45
Ile Ser Ala Lys Val Ile Leu Leu Ile Leu Gly Ser Ile Gly Val Trp
    50                  55                  60
Ser Val Ser Gly Gly Gln Ala Trp Ile Gly Tyr Tyr Pro Val Trp Ser
65                  70                  75                  80
```

<210> 32019
<211> 93
<212> PRT
<213> A.fumigatus

<400> 32019
Leu Ser Glu Tyr Ser Ala Gly Arg Arg Phe Leu Cys Cys Val His Ile
1 5 10 15
Ile Pro Asp Ser Arg Ile His Gly Trp Ser Leu Lys Cys Arg Phe Asn
20 25 30
Asn Ser Leu Asp Thr Ser Gly Glu Ile Tyr Tyr Phe Tyr Tyr Tyr Trp
35 40 45
Lys Val Ser Thr Ser Ile Ile Gly Asn Val Ile Ala Thr Ala Pro Pro
50 55 60
Pro Val Glu Leu Val Tyr Met Lys Gly Ser Leu Leu Tyr His Asn Ser
65 70 75 80
His Ser Ile Leu Phe Pro Cys Ser Leu Pro Leu Gln Ala
85 90

<210> 32020
<211> 184
<212> PRT
<213> A.fumigatus

<400> 32020
Ser Arg Asp Arg Pro Cys Pro Ala Glu Asp Ala Ile Met Pro Ala Ile
1 5 10 15
His Gly Asp Leu Leu Ala Ala Val Ile Pro Thr Asp Arg Asp Ile Pro
20 25 30
Val Asn Ile Thr Pro Arg Gln Val Thr Leu Arg Asp Arg Val Thr Val
35 40 45
Ala Thr Leu Val Pro Ile Ser Ser Ala Asp Asp Val Pro Pro Ser Leu
50 55 60
Met Arg Tyr Leu Ser Asp Gln Leu Asn Lys Glu Ile Ala Lys Gly Asp
65 70 75 80
Thr Tyr Ala Met Val Asp Pro Ile Pro Leu Glu Gln Phe Ala Thr Tyr
85 90 95
Trp Phe Phe Asn Phe Gly Ala Ile Met Leu Leu Gly Asp Ile Lys Ser
100 105 110
Val Tyr Glu Met Lys Ala Met Glu Arg Ala Gly Ala Asp Trp Thr Lys
115 120 125
Thr Cys Leu Gly Ser Phe Asn Ile Arg Pro Asn Tyr Pro Gly Arg Ser
130 135 140
Ser His Val Cys Asn Gly Met Phe Leu Val Thr Asp Ala Ala Arg Asn
145 150 155 160
Arg Gly Val Gly Arg Leu Met Gly Glu Gly Tyr Leu Glu Trp Ala Pro
165 170 175
Lys Leu Val Ser Met Ile Ser Thr
180

<210> 32021
<211> 371
<212> PRT
<213> A.fumigatus

<400> 32021

```
Gln Gly Tyr Thr Tyr Ala Val Phe Asn Leu Val Tyr Glu Ser Asn Val
1               5                  10                  15
Ala Ser Cys Arg Ile Trp Asp Ala Leu Gly Phe Lys Arg Ile Gly Lys
            20                  25                  30
Val Pro Asn Ala Gly Lys Val Leu Ser Ser Pro Gly Glu Tyr Val Asp
        35                  40                  45
Ala Ile Ile Tyr Gly Arg Asp Leu Ser Ser Glu Gly Asp Asp Ser Phe
    50                  55                  60
Thr Gln Asp Arg Phe Asp Lys Ile Arg Tyr Tyr Leu Lys His Ser Lys
65                  70                  75                  80
Tyr Pro Arg Gly Ala Asp Arg Ala Glu Lys Ser Arg Leu Arg Ser Ala
                85                  90                  95
Ala Thr His Tyr Lys Leu Ile Glu Gly Lys Asp Gly Asp Ser Asp Lys
            100                 105                 110
Leu Met Leu Lys Asp Lys Glu Val Val Ser Asp Pro Gln Gln Gln Tyr
        115                 120                 125
Glu Ile Ala Arg Thr Ile His Leu Lys Gln His Ala Gly Ile Asn Lys
    130                 135                 140
Thr Thr Ala Ala Ile Ala Val Lys Tyr His Trp Val Arg Ile Lys Glu
145                 150                 155                 160
Thr Val Ser Arg Val Ile Arg Asp Cys Pro Gln Cys Lys Glu Thr Leu
                165                 170                 175
Lys Leu Pro Pro Ser Asn Gly Met Leu Ile His Asp Gly Ala Val Thr
            180                 185                 190
Met Glu Lys Leu Ser Ala Asn Glu Asn Glu Thr Ser Leu Ser Thr Arg
        195                 200                 205
Ser Thr Met Glu Thr Pro Gln Leu Met Asp Asn Asn Ser Leu Asp Pro
    210                 215                 220
His Gln Ser His Asn Pro Phe Ala Gln Thr His Pro Gln Val Ile Gln
225                 230                 235                 240
Gly Pro Val Asp Ser Ile Thr Asp Tyr Thr Thr Leu Pro Leu Asp Pro
                245                 250                 255
Gln Ile Ile Asp Ile Asn Gln Gln Leu Ser Arg Phe His Ser His Asp
            260                 265                 270
Gly Met Ser His His Pro His Asp Gly Leu Gly His His Pro His Asp
        275                 280                 285
Gly Ile Pro Asp Pro Tyr Thr His Gly His His Ser Leu Ser His Ser
    290                 295                 300
Asn Phe Glu Asp Ala Val Arg His His Thr Ala His Asp Tyr His Met
305                 310                 315                 320
Met Val Glu Asp Ala Ser Asp Ser Asp Ala Ala Val Leu Arg Gln Glu
                325                 330                 335
Ala Leu Gly Leu Val Pro Pro Gln Val His Glu Val His His Asp His
            340                 345                 350
Asp Leu Leu Ser Lys Tyr Glu Tyr Val Gly Pro Pro Asp Asp Glu Leu
        355                 360                 365
Asp Phe Ser
    370
```

<210> 32022
<211> 148
<212> PRT
<213> A.fumigatus

<400> 32022

```
Arg Ser Leu Ala Ser Pro Asn Gly Trp Ser Tyr Asp Asp Pro Asn Val
1               5                  10                  15
Ser Thr Asp Ser Leu Arg Arg Tyr Thr Leu His Asp Pro Gly Ile Thr
            20                  25                  30
Ala Phe Ala Pro Pro Tyr Pro Glu Ser Glu Ala Ala Asp Val Arg Ser
        35                  40                  45
Ala Arg Met Ser Gly Tyr Ser Gly Ile Glu Met Asp Ala Trp Gln Arg
    50                  55                  60
Arg Gln Gly Val Lys Pro Ser Ala Leu Arg Arg Tyr Gly Thr Arg Lys
65                  70                  75                  80
Ile Asn Leu Val Gln Gly Ser Val Leu Ser Val Asp Tyr Pro Val Pro
                85                  90                  95
Ser Ala Ile Gln Asn Ala Ile Gln Ala Glu Tyr Arg Asp Ala Glu Glu
            100                 105                 110
Ala Phe His Glu Glu Phe Thr His Met Arg Cys Lys Tyr Ser Cys Arg
        115                 120                 125
Ile Ala Ile Ala Tyr Ser Arg Leu Arg Arg Ser Arg Tyr Cys Arg His
    130                 135                 140
Leu Arg Pro Arg
145
```

<210> 32023
<211> 138
<212> PRT
<213> A.fumigatus

```
<400> 32023
Gly Gly Leu Asp Thr Ala Ala Thr Cys Asp Pro Asp Glu Phe Thr Leu
1               5                  10                  15
Arg Asn Gly Tyr Asn Leu Arg Pro Ala Met Tyr Asn Arg His Thr Glu
            20                  25                  30
Leu Leu Ile Ala Ile Thr Tyr Tyr Asn Glu Asp Lys Val Leu Thr Ala
        35                  40                  45
Arg Thr Leu His Gly Val Met Gln Asn Val Arg Asp Ile Val Asn Leu
    50                  55                  60
Lys Lys Ser Glu Phe Trp Asn Lys Gly Gly Pro Ala Trp Gln Lys Ile
65                  70                  75                  80
Val Val Cys Leu Val Phe Asp Gly Ile Glu Pro Cys Asp Lys Asn Thr
                85                  90                  95
Leu Asp Val Leu Ala Thr Ile Gly Val Tyr Gln Asp Gly Val Met Lys
            100                 105                 110
Lys Asp Val Asp Gly Arg Glu Thr Val Ala His Ile Val Ser Asp Thr
        115                 120                 125
Arg Gln Arg Val Pro Phe Glu Lys His His
    130                 135
```

<210> 32024
<211> 344
<212> PRT
<213> A.fumigatus

```
<400> 32024
Phe Glu Tyr Thr Thr Gln Leu Ser Val Thr Pro Thr Gln Gln Leu Val
1               5                  10                  15
Arg Pro Gln Pro Asn Asp Pro Ser Asn Leu Pro Pro Val Gln Met Leu
            20                  25                  30
```

```
Phe Cys Leu Lys Gln Lys Asn Ser Lys Lys Ile Asn Ser His Arg Trp
        35                  40                  45
Leu Phe Asn Ala Phe Ser Arg Ile Leu Asn Pro Glu Ile Cys Ile Leu
    50                  55                  60
Leu Asp Ala Gly Thr Lys Pro Gly Ser Lys Ser Leu Leu Ala Leu Trp
65                  70                  75                  80
Glu Ala Phe Tyr Asn Asp Lys Thr Leu Gly Gly Ala Cys Gly Glu Ile
                85                  90                  95
His Ala Met Leu Gly Arg Gly Trp Arg Asn Val Leu Asn Pro Leu Val
            100                 105                 110
Ala Ala Gln Asn Phe Glu Tyr Lys Ile Ser Asn Ile Leu Asp Lys Pro
        115                 120                 125
Leu Glu Ser Ala Phe Gly Tyr Val Ser Val Leu Pro Gly Ala Phe Ser
    130                 135                 140
Ala Tyr Arg Tyr Arg Ala Ile Met Gly Arg Pro Leu Glu Gln Tyr Phe
145                 150                 155                 160
His Gly Asp His Thr Leu Ser Lys Arg Leu Gly Lys Lys Gly Ile Glu
                165                 170                 175
Gly Met Asn Ile Phe Lys Lys Asn Met Phe Leu Ala Glu Asp Arg Ile
            180                 185                 190
Leu Cys Phe Glu Leu Val Ala Lys Ala Gly Tyr Lys Trp His Leu Thr
        195                 200                 205
Tyr Val Lys Ala Ser Lys Gly Glu Thr Asp Val Pro Glu Ala Ala Pro
    210                 215                 220
Glu Tyr Ile Ser Gln Arg Arg Arg Trp Leu Asn Gly Ser Phe Ala Ala
225                 230                 235                 240
Ser Leu Tyr Ser Ile Met His Phe Gly Arg Ile Tyr Lys Ser Gly His
                245                 250                 255
Ser Phe Val Arg Met Phe Phe Leu His Ile Gln Met Ile Tyr Asn Cys
            260                 265                 270
Cys Gln Leu Ile Met Thr Trp Phe Ser Leu Ala Ser Tyr Trp Leu Thr
        275                 280                 285
Ser Ser Val Ile Met Asp Leu Val Gly Thr Pro Ser Ser His Asn Lys
    290                 295                 300
Tyr Lys Ala Trp Pro Phe Gly Asn Asp Ala Ser Pro Ile Val Asn Phe
305                 310                 315                 320
Phe Val Lys Tyr Gly Tyr Leu Leu Val Leu Met Leu Gln Phe Val Leu
                325                 330                 335
Ala Leu Gly Asn Arg Pro Lys Gly
            340
```

<210> 32025
<211> 240
<212> PRT
<213> A.fumigatus

<400> 32025

```
Ala Asp Gly Ile Ser Cys Pro Arg Arg Lys Thr Ala Asp Thr Asn Arg
1               5                   10                  15
Thr Lys Leu Ala Tyr Thr Met Ser Phe Leu Trp Phe Ser Leu Val Gln
            20                  25                  30
Phe Tyr Val Leu Ile Leu Ser Phe Tyr Leu Val Ala Asn Ala Phe Met
        35                  40                  45
Gly Gly Met Ile Asp Phe Asp Phe Asp Gln Gly Val Gly Asn Phe Leu
    50                  55                  60
Ser Ser Phe Phe Ser Ser Thr Gly Gly Gly Ile Val Leu Ile Ala Leu
```

```
65                  70                  75                  80
Val Ser Thr Tyr Gly Ile Tyr Ile Val Ala Ser Ile Leu Tyr Met Asp
                85                  90                  95
Pro Trp His Ile Leu Thr Ser Ser Trp Ala Tyr Phe Leu Gly Met Thr
            100                 105                 110
Thr Ser Ile Asn Ile Leu Met Val Tyr Ala Phe Cys Asn Trp His Asp
        115                 120                 125
Val Ser Trp Gly Thr Lys Gly Ser Asp Lys Ala Asp Ala Leu Pro Ser
    130                 135                 140
Ala Gln Thr Lys Lys Ala Asp Gly Ser Lys Asn Asn Phe Ile Glu Glu
145                 150                 155                 160
Ile Asp Lys Pro Gln Ala Asp Ile Asp Ser Gln Phe Glu Ala Thr Val
                165                 170                 175
Lys Arg Ala Leu Ala Pro Tyr Gln Glu Pro Lys Glu Asp Ser Thr Ile
            180                 185                 190
Ser Leu Asp Asp Ser Tyr Arg Asn Phe Arg Thr Ser Leu Val Leu Leu
        195                 200                 205
Trp Ile Leu Ser Asn Leu Leu Val Ser Leu Leu Ile Thr Ser Asp Gly
    210                 215                 220
Ile Arg Lys Met Cys Leu Thr Val Arg Leu Gly Ser Pro Gly Cys Ala
225                 230                 235                 240
```

<210> 32026
<211> 694
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (642),(667),(677)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32026

```
Gln Val Leu Asp Ser Glu Asp Lys Gly Gln Leu Gln Ala Ile Val Arg
1               5                   10                  15
Thr Leu Gly Leu Ala Arg Arg Leu Tyr Phe Ala Pro Phe Val Glu Tyr
            20                  25                  30
Leu Leu Pro Leu Leu Asn His Ala Asp Gln Glu Arg Glu Leu Arg Ala
        35                  40                  45
Met Ala Tyr Thr Phe Gln Met Val Val Gly Tyr Ala Leu Pro Trp Thr
    50                  55                  60
Arg Val Ser Glu Leu Leu Phe Arg Glu Leu Thr Arg Asp Ala Leu Ile
65                  70                  75                  80
Val Leu Gly Ile Asp Ala Leu Asp Glu Glu Ala Asn Phe Glu Asp Ser
                85                  90                  95
Val Ser Val Asp Asn Met Glu Val Asp Arg Gln Phe Ser Val Ser Tyr
            100                 105                 110
Gln Asp Trp Arg Glu Glu Pro Ser Ala Glu Val Arg Met Gln Met Met
        115                 120                 125
Ala Glu Tyr Glu Asp Val Arg Val Val Ala Thr Arg Glu Arg Leu Leu
    130                 135                 140
Ser Leu Leu Arg Ser Leu Gln Leu Val Gly Leu Gly Gly Asp Lys Ala
145                 150                 155                 160
Gln Lys Val Phe Ala Ser Val Met Asp Met Met Leu Thr Val Phe Ile
                165                 170                 175
Glu Ser Ala Tyr Ala Asn Gln Trp Glu Gly Pro Ser Leu Val Ser Gln
```

```
            180                 185                 190
His Leu Arg Gln Trp Ile Glu Asn Val Phe Ala Arg Leu Val Val Gln
        195                 200                 205
Val Leu Ala Ile Ile Asn His Asp Glu Thr Gly Ala Asn Ala Ser Gly
    210                 215                 220
Arg Leu Asp Val Ser Leu Val Asp Val Glu Arg Trp Gln Glu Met Gly
225                 230                 235                 240
Ile Ser Arg Leu Gly Ser Leu Arg Thr Arg Glu Leu Phe Asp Ile Ile
                245                 250                 255
Val Glu Trp Pro Ala Ser Ser Gly Ala Ile Glu Asp Leu Arg Gln Phe
            260                 265                 270
Trp Thr His Pro Pro Ala Arg Tyr Cys Leu Thr Gln Ala Phe Ile Lys
        275                 280                 285
Val Leu Asn Gln Arg Leu Leu His Pro Gly Ala Ser Thr Ile Asp Ile
    290                 295                 300
Leu Arg Val Tyr Ile Ser Ile Ile Arg Ala Phe Asn Leu Ile Asp Pro
305                 310                 315                 320
Lys Gly Val Leu Leu Asp Arg Val Ala Arg Pro Ile Arg Arg Tyr Leu
                325                 330                 335
Arg Asp Arg Asp Asp Thr Val Lys Val Ile Val Gly Gly Leu Leu Ala
            340                 345                 350
Asp Pro Ala Asp Thr Asp Glu Ser Asn Leu Pro Ser Thr Gly Glu Thr
        355                 360                 365
Leu Ser Glu Leu Ser Ala Glu Leu Ala Lys Ala His Gln Asn Ser Leu
    370                 375                 380
Arg Ala Asp Ser Gly Glu Leu Asp Trp Asp Asp Met Asn Trp Met Pro
385                 390                 395                 400
Asp Pro Val Asp Ala Ala Pro Asp Tyr Lys Lys Ser Lys Ser Ser Asp
                405                 410                 415
Val Ile Gly Ser Leu Ile Ser Leu Phe Glu Ser Lys Glu Thr Phe Val
            420                 425                 430
Arg Glu Met Gln Asn Met Leu Ala Glu Arg Leu Leu Gln Lys Arg Ala
        435                 440                 445
Glu Phe Glu Gln Glu Thr Ser Val Leu Glu Leu Leu Lys Val Arg Phe
    450                 455                 460
Gly Asp Asn Ser Leu Gln Ala Cys Glu Val Met Leu Arg Asp Ile Phe
465                 470                 475                 480
Asp Ser Arg Arg Val Asp Ala Val Val Arg Asn Asp Gln Gly Leu Val
                485                 490                 495
Gln Ser Glu Asp Asp Thr Arg Pro Glu Leu His Ala Lys Ile Leu Ser
            500                 505                 510
His Phe Phe Trp Pro Glu Phe Pro Ala Gln Gln Phe Lys Val Pro Pro
        515                 520                 525
Glu Ile Ala Ala Leu Gln Glu Arg Tyr Ala Thr Gly Phe Gly Ser Leu
    530                 535                 540
Lys Gln Ser Arg Lys Leu Thr Trp Leu Asn Gly Met Gly Gln Val Thr
545                 550                 555                 560
Val Glu Leu Asp Leu Glu Asp Arg Val Phe Val Asp Glu Val Thr Thr
                565                 570                 575
Trp Gln Ala Thr Val Ile Tyr Ala Phe Gly Ser Glu Glu Gly Ala Thr
            580                 585                 590
Lys Thr Val Asp Gly Leu Ser Ala Glu Leu Gly Met Ser Thr Ala Leu
        595                 600                 605
Val Arg Ser Ala Cys Leu Phe Trp Val Ser Lys Arg Ile Leu Ser Glu
    610                 615                 620
Leu Gln Arg Asn Thr Phe Arg Val Leu Glu Val Leu Pro Asn Asp Asp
```

625 630 635 640
Asp Xaa Gly Ala Val Gly Pro Ala Gly Val Ser Ala Met Glu Ser Gly
645 650 655
Pro Ala Asn Ala Ala Ala Ala Ala Asp Ser Xaa Ala Ala Ala Ala Ala
660 665 670
Lys Glu Thr Ala Xaa Ala Ala Ala Met Glu Asn Met Thr Cys Thr Gly
675 680 685
His Ser Pro Leu Ala Cys
690

<210> 32027
<211> 408
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (131)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32027
Gly Leu Leu Tyr Leu Leu Ser Pro Val Thr Phe Thr Leu Leu Thr Arg
1 5 10 15
Tyr Pro Arg Leu Gln Gly Trp Cys Ile Pro Thr Gly Leu Cys Ile Thr
20 25 30
Val Ile Gly Ser Leu Leu Ser Ser Ile Ser Thr His Val Trp His Leu
35 40 45
Ile Ala Thr Gln Gly Ile Met Cys Ala Ile Gly Asn Ala Leu Met Phe
50 55 60
Ser Pro Ser Ser Leu Tyr Met Asp Gln Trp Phe Ile His Lys Lys Gly
65 70 75 80
Leu Ala Leu Gly Ile Met Trp Ala Ala Lys Ser Val Thr Gly Val Val
85 90 95
Leu Pro Phe Ala Ala Asn Phe Cys Leu His His Phe Gly Ser Ser Thr
100 105 110
Thr Phe Arg Val Arg Thr Val Thr Thr Val Trp Ser Pro Gly Ser Leu
115 120 125
Leu Arg Xaa Val Ala Asn Leu Cys Arg Gly Thr Asn Leu Gly Gly Val
130 135 140
Cys Arg Cys Pro Asn Ala Ser Ser Thr Asn Thr Glu Ser Gln Leu Leu
145 150 155 160
Thr Thr Leu Gly Ser Leu Pro Phe Met Lys Pro Arg Ile Pro Val Ser
165 170 175
Pro Ser Ala Ser Ala Arg Arg Leu Asp Leu Gly Phe Leu Arg Leu Ala
180 185 190
Ala Phe Trp Thr Leu Gln Ala Gly Asn Ile Ile Gln Ser Phe Gly Tyr
195 200 205
Phe Leu Pro Ser Thr Tyr Leu Pro Ser Tyr Ser Thr Ala Thr Val Gly
210 215 220
Leu Ser Arg Thr Met Gly Thr Met Leu Val Ser Leu Phe Asn Ala Thr
225 230 235 240
Ser Ile Val Gly Gly Ile Cys Met Gly Met Leu Cys Asp Arg Phe Ala
245 250 255
Val Ser Asn Ile Leu Leu Leu Ser Ser Met Gly Ser Ala Leu Ser Val
260 265 270
Phe Leu Leu Trp Gly Met Ala Ser Ser Pro Gly Ser Asp Ser Pro Arg

```
        275                 280                 285
Thr Gly Ile Ala Leu Leu Thr Leu Phe Ser Ile Phe Tyr Gly Phe Phe
    290                 295                 300
Ala Gly Gly Phe Ser Ser Thr Trp Ser Gly Val Ile Lys Gln Ile Lys
305                 310                 315                 320
Arg Asp Ser Ser Thr Ser Leu Glu Thr Gly Leu Val Phe Gly Leu Leu
                325                 330                 335
Ala Gly Gly Arg Gly Ile Gly Asn Val Ile Ser Gly Pro Leu Ser Thr
            340                 345                 350
Ala Leu Ile Lys Gln Gly Ser Leu Gly Gly Ser Gln Thr Ser Asn Ala
        355                 360                 365
Gly Thr Gly Phe Ser Thr Gln Tyr Gly Thr Leu Ile Leu Phe Thr Gly
    370                 375                 380
Ile Thr Ala Ala Leu Gly Ala Trp Ser Ser Met Trp Gly Tyr Ile Ser
385                 390                 395                 400
Ser Ser Val Arg Cys Val Ser Arg
                405
```

<210> 32028
<211> 67
<212> PRT
<213> A.fumigatus

<400> 32028

```
Gly Leu Val Phe Leu Ile Gln His Leu Gln Ser Arg Ser Lys Leu Asp
1               5                   10                  15
Leu Gln Arg Ala Asn Pro Ser Asp Cys Val Val Leu Met Arg Glu Pro
            20                  25                  30
Leu Leu Leu Tyr Leu Cys Ala Ile Leu Gly Leu Ile Ile Ser Pro Leu
        35                  40                  45
Ser Phe Tyr Leu Thr Ile Leu Arg Val Val Asp Thr Phe Glu His Val
    50                  55                  60
Gly Phe Tyr
65
```

<210> 32029
<211> 611
<212> PRT
<213> A.fumigatus

<400> 32029

```
Ile Ile Pro Ser Met Pro Ser Ile Ser Leu Thr Ala Lys Asp Arg Leu
1               5                   10                  15
Arg Arg Ser Gln Ser Ala Arg Ser Met Arg Arg Ser Arg Gln Ser Ser
            20                  25                  30
Leu Pro Ser Glu Leu Phe Asp Pro Ser Ile Ala Arg Gln His Ala Ala
        35                  40                  45
Val Ala Ala Thr Arg Ala Met Leu Arg Ser Ser Asp Arg Ser Ser Ala
    50                  55                  60
Asp Ser Lys His Ser Tyr Asp Cys Leu Gly Gly Pro Glu Asn Met Ala
65                  70                  75                  80
Val Pro Ser Lys Arg Leu Thr Arg Pro Pro Arg His Thr Gln Ala Pro
                85                  90                  95
Thr Thr Asp Pro Ser Val Glu Asp Ala Ser Pro Ser Arg Arg Ser Ile
            100                 105                 110
Ala Ser Tyr Ile Glu Asn Cys Asp Asp Asp Leu Thr Phe Ser Ala Ala
```

```
        115                 120                 125
Leu Pro Pro Ile Ser Glu Phe Arg Gly Leu Asn Gly Arg Asp Ser Ser
    130                 135                 140
Leu Pro Ser Ser Tyr Arg Arg Leu Arg Lys Ala Arg Ser Met Phe Ser
145                 150                 155                 160
Thr Arg Gln Arg Ala Ser Tyr Ile Ser His Glu Tyr Ser Ser Asp Val
                165                 170                 175
Tyr Ala Arg Arg Phe Asn Asp Thr Glu Gln Phe Glu Thr Pro Arg Arg
            180                 185                 190
Tyr Arg Thr Leu Arg Arg Ser Met Ser Phe Leu Arg Ser Gly Gln Ser
        195                 200                 205
Pro Arg Phe Ile Arg His Ala Gln Ser Gln Glu Ala Ala Ile Gln Leu
    210                 215                 220
Ala Arg Ser Gln Phe Gln Glu Asn Met Val Gly Gln Cys Ser Gly Gln
225                 230                 235                 240
Arg Gln Ser Ser Ile Thr Met Leu Lys Pro Arg Arg Glu His Lys Pro
                245                 250                 255
Phe Arg Lys Thr Phe Arg Thr Asn Ser Gly Ser Gly Met Asp Thr Asp
            260                 265                 270
Ala Ser Thr Ser Ala Gly Gln Ser Lys Arg Val Ser Ser Arg Gly Lys
        275                 280                 285
Ala Arg Ala Leu Ser Ser Ser Ile Lys Arg Gly Leu Lys Arg Val Leu
    290                 295                 300
Gly Leu Ser Lys Thr Ser Ala Ala Pro Gly Gln Ala Glu Ala Ser Pro
305                 310                 315                 320
Leu Ser Leu Gln Gln His Asn Tyr Gly Pro Ser Ser Thr Ile Tyr Ala
                325                 330                 335
Gly Asp Ser Ser Ala Glu Glu Leu Gly His Ser His Glu Thr Ile Gly
            340                 345                 350
Gln Ser Arg Pro Pro Thr Val Arg Ser Val Gln Ser Asn Glu Ser Leu
        355                 360                 365
Ser Thr Ser Arg Ser Arg Val Thr Ser Trp Thr Asp Ser Thr Val Ala
    370                 375                 380
Ser Thr Ile Ala Thr Arg Arg Ala Pro Glu Arg Asp Cys Leu Ser Ile
385                 390                 395                 400
Ile Asn Glu Gln Gly Asp Phe Asn Gly Arg Ala Gly Ser Glu Leu Pro
                405                 410                 415
Pro Arg Pro Ser Ala Ile Arg Pro Asp Gly Ser Ile Asp Ser Lys His
            420                 425                 430
Leu Tyr Asp Ala Leu Leu Arg Arg Ile Gly Arg Gly Asp Met Pro Ser
        435                 440                 445
Pro Ser Glu Glu Val Val Val Gly Gln Val Lys Glu His Arg Leu Ile
    450                 455                 460
Pro Ala Arg Thr Ser Ser Leu Arg Pro Arg Arg Ser Arg Gln Thr Ile
465                 470                 475                 480
Arg Gln Ile Pro Ser Asp Ala Ser Ile Ala Thr Ser Arg Thr Phe Ala
                485                 490                 495
Thr Ala Tyr Ala Gly Ser Ser Ser Pro Gln Lys Gln Thr Gln Arg His
            500                 505                 510
Ser Arg Ser Ser Met Pro Ser Gln Arg Lys Ser Ser Ala Pro Lys Lys
        515                 520                 525
Ala Ser Thr Pro Leu Asp Phe Ser Ala Val Asp Asn Ala Lys Glu Pro
    530                 535                 540
Ala Ala Ala Cys Ala Glu Asp Ala Glu Asp Asp Ser Arg Ser Val Ile
545                 550                 555                 560
Val Ala Ser Gln Ala Asp Pro Glu Thr Leu Ser Asn Ser Pro Ser Ile
```

```
                565                 570                 575
Tyr Ser Arg Thr Thr Ser Gly Ser Ser Pro Glu Arg Lys Asp Gln Ala
            580                 585                 590
Ile Asp Leu Tyr Ser Arg Leu His His Gly Ala Gly Arg Ile Arg Gly
        595                 600                 605
Ser Ala Phe
    610
```

<210> 32030
<211> 230
<212> PRT
<213> A.fumigatus

<400> 32030

```
Ala Ala Ile Arg Cys Thr Leu Ser Val Gly Glu Ile Gly Val Pro Arg
1               5                   10                  15
Arg Tyr Lys Tyr Lys Pro Arg Val Leu Pro Gly Leu Gly Pro Ile Ser
            20                  25                  30
Tyr Ser Trp Asp Ile Arg Glu Gly His His His Ile Cys Leu Tyr Ile
        35                  40                  45
Cys Ser Cys Ser Arg Leu Arg Arg Ser Ile Ser Pro Asn Arg Gly Arg
    50                  55                  60
Cys Tyr Ser Leu Thr Phe Phe Leu Ala Arg Thr Val Ser Ser Thr Asn
65                  70                  75                  80
Met Thr Ser Gln Gln Lys Tyr Thr Pro Pro Asn Gly Ala Leu Ala Glu
                85                  90                  95
Gln Phe Ser Arg Tyr Asp Gly Ser Pro Leu Ser Ala Gln Asp Leu Thr
            100                 105                 110
Trp Ser Tyr Thr Ser Phe Leu Thr Ala Val Gln Ala Arg Arg His Ala
        115                 120                 125
Leu Asn Pro Ser Ala Ser His Ile Gln Pro Leu Leu Ser Asn Ala Thr
    130                 135                 140
Thr Ala Thr Ala Leu Pro Gln Val Cys Thr Pro Ser Ser Ala Arg Gly
145                 150                 155                 160
Pro Tyr Gln Pro Val Lys Arg Ile Lys Trp Pro Arg Pro Glu Cys Leu
                165                 170                 175
Ser Pro Arg Ser Thr Val Ala Val Arg Phe Asn Val Leu Ala Thr Thr
            180                 185                 190
Val Ile Gly Glu Asp Ile Phe Leu Val Gly Ser Ile Pro Ala Leu Gly
        195                 200                 205
Glu Trp Asp Ala Arg His Gln Ala Leu Lys Leu Glu Ala Asn Glu Tyr
    210                 215                 220
Ser Ser Ile Thr Pro Leu
225                 230
```

<210> 32031
<211> 168
<212> PRT
<213> A.fumigatus

<400> 32031

```
Cys Ile Ile Ser Cys Met Gln Gln Glu Gly Val Ser Gly Gly Ser Ser
1               5                   10                  15
Leu Ser Val Leu Glu Cys Asp Arg Ser Ala Ser Arg Phe Asn Phe Pro
            20                  25                  30
Tyr Phe Pro Thr Ile Ile Ile Ile Ile Ile Ile Ile Ile Thr Val Ile
```

```
        35                  40                  45
Tyr Ser Arg Gln Ser Ser Ile Arg Ala Cys Glu Ser Cys Ala Cys Glu
    50                  55                  60
Ala Val Ser Ile Arg Leu Asp Glu Met Lys Asp Glu Thr Pro Arg Met
65                  70                  75                  80
Thr Glu Met Thr Arg Lys Pro Phe Leu Thr Ile Ala Ile Gly Val Leu
                85                  90                  95
Thr Thr Val Ser Ala Leu Ser Asp Pro Ala Gln Ile Val Ile Pro Ala
            100                 105                 110
Thr Ile Thr Pro Gln Thr Thr Asp Pro Leu Val Ser Trp Leu Ala Gln
        115                 120                 125
Glu Thr Ser Tyr Ala Leu Asp Gly Val Leu Asn Asn Val Gly Pro Asn
    130                 135                 140
Gly Ala Lys Ala Thr Gly Ala Ser Ser Gly Ile Ile Ile Ala Ser Pro
145                 150                 155                 160
Ser Gln Ser Asn Pro Asp Cys Glu
                165
```

<210> 32032
<211> 82
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (14),(18),(41)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32032

```
Trp Ala Cys Ala Glu Ser Asn Asn Thr Asp Phe Leu Arg Xaa Leu Asp
1               5                   10                  15
Asp Xaa Tyr Val Leu Leu Phe Ser Ile Lys Ile Glu Leu Pro Asn Phe
            20                  25                  30
Val Tyr Ser Asn Arg Ile Met Val Xaa Ser Leu Pro Leu Ser Gln Ala
        35                  40                  45
Ser Gly Gln Ser Phe Gln Asn Asp Leu Phe Tyr Pro Thr Glu Phe Trp
    50                  55                  60
Asn Ser Ser Thr Phe Gly Thr Phe Val Cys Phe Ser Tyr Gly Arg Ile
65                  70                  75                  80
Ile Gln
```

<210> 32033
<211> 222
<212> PRT
<213> A.fumigatus

<400> 32033

```
Pro Asp Pro Val Asp Leu Trp Glu Glu Val Arg Gly Ser Ser Phe Phe
1               5                   10                  15
Thr Thr Ala Val Gln His Gln Ala Leu Arg Lys Gly Ala Ala Leu Ala
            20                  25                  30
Gln Arg Leu Gly Lys Thr Cys Ser Asn Cys Gln Ser Gln Ala Pro Gln
        35                  40                  45
Val Leu Cys Phe Leu Gln Thr Tyr Trp Thr Gly Ser Ser Ile Leu Ala
    50                  55                  60
```

```
Asn Leu Tyr Ser Asp Arg Ser Gly Lys Asp Ala Asn Ser Ile Leu Gly
65                  70                  75                  80
Ile Ile His Thr Phe Asp Pro Asn Ala Gly Cys Asp Gly Gln Thr Phe
                85                  90                  95
Gln Pro Cys Ser Asp Arg Ala Leu Ala Ser His Lys Glu Val Val Asp
            100                 105                 110
Ser Phe Arg Ser Leu Tyr Pro Ile Asn Ala Asp Ile Pro Gln Gly Gln
        115                 120                 125
Ala Val Ala Val Gly Arg Tyr Pro Glu Asp Val Tyr Gln Gly Gly His
    130                 135                 140
Pro Trp Tyr Leu Cys Thr Leu Ala Ala Ala Glu Gln Leu Tyr Asp Ala
145                 150                 155                 160
Leu Tyr Gln Trp Glu Arg Leu Gly Ser Leu Ala Val Thr Asn Ile Ser
                165                 170                 175
Leu Ala Phe Phe Gln Asp Leu Val Pro Ser Ala Thr Val Gly Thr Tyr
            180                 185                 190
Ala Lys Asp Thr Ile Thr Phe Ala Ser Ile Ser Ala Ala Val Arg Asp
        195                 200                 205
Tyr Ala Asp Arg Phe Leu Arg Ile Val Val Gly Val Thr Leu
    210                 215                 220
```

<210> 32034
<211> 135
<212> PRT
<213> A.fumigatus

<400> 32034

```
Pro His Ser Arg Asn Thr His Pro Arg Met Ala Pro Ser Gln Ser Asn
1               5                   10                  15
Ser Arg Ala Met Thr Ala Pro Pro Ser Gln Arg Lys Thr Ser Leu Gly
            20                  25                  30
Pro Thr His Pro Phe Ser Leu Gln Phe Lys Pro Glu Asp Met Leu Leu
        35                  40                  45
Ile Leu Pro His His Thr Ser Asn Leu Ser Ser Gln Thr Arg Pro Pro
    50                  55                  60
Pro Leu Pro Ser Pro Lys Ser Ala Pro Leu Pro Pro His Glu Gly Pro
65                  70                  75                  80
Thr Ser Pro Leu Asn Glu Ser Ser Gly Pro Asp Gln Ser Val Ser Pro
                85                  90                  95
Leu Gly Val Pro Ser Pro Phe Gly Ser Met Ser Trp Arg Pro Pro Leu
            100                 105                 110
Leu Ala Arg Thr Ser Ser Ser Ser Gly Pro Ser Pro Arg Trp Ala Asn
        115                 120                 125
Gly Met Arg Gly Ile Arg Leu
    130                 135
```

<210> 32035
<211> 60
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (29)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32035
Asp Tyr Tyr Thr Trp Thr Arg Asp Ala Ala Leu Thr Val Lys Tyr Leu
1 5 10 15
Val Gly Ser Phe Ala Ala Asp His Glu Ser Cys Ile Xaa Arg Ile Ile
20 25 30
Glu Asp Tyr Val Glu Ser Gln Ala His Leu Gln Thr Val Ser Asn Pro
35 40 45
Ser Gly Asn Leu Ser Ser Gly Gly Leu Gly Glu Thr
50 55 60

<210> 32036
<211> 136
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (4),(6)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32036
Thr Ser Thr Xaa Arg Xaa Ala Val Lys Thr Met Leu Thr Glu Val Ala
1 5 10 15
Thr Thr Gln Leu Ser Val Ser Pro Leu Glu Leu Thr Cys Asn Ser Ser
20 25 30
Leu Ala Asp Lys Trp Ala Ala Asn Gly Ala Thr Phe Tyr Asn Cys Cys
35 40 45
Gly Pro Thr Glu Val Thr Ile Ile Asn Thr Met His Arg His Gln Phe
50 55 60
Gly Gln Gln Leu Thr Ile Gly Arg Pro Leu Pro Asn Thr Ser Val Tyr
65 70 75 80
Ile Leu Asp Asp Lys Gln Leu Pro Val Val Ile Gly Glu Val Gly Thr
85 90 95
Met Trp Ala Gly Gly Ala Gly Ile Thr Arg Gly Tyr Leu Gly Gln Pro
100 105 110
Glu Lys Thr Ala Glu Arg Tyr Arg Tyr Asp Pro Phe Val Asp Asp Gly
115 120 125
Cys Val Pro Gly Ser Leu Ala Asp
130 135

<210> 32037
<211> 95
<212> PRT
<213> A.fumigatus

<400> 32037
Leu Gly Arg Ser Gly Pro Cys Gly Leu Val Glu Gln Gly Ser Gln Glu
1 5 10 15
Gly Ile Leu Asp Ser Leu Arg Arg Leu Leu Ser Ala Ile Ala Met Ile
20 25 30
Leu Leu Leu Thr Met Gly Ala Ser Gln Ala Val Ser Leu Ile Asp Met
35 40 45
Leu Thr Asp Arg Trp Ile Ala Tyr Ser His Ser Met Met Phe Asn Thr
50 55 60
Gly Asp Leu Ala Arg Trp Leu Pro Asp Gly Ser Leu Glu Thr Leu Gly
65 70 75 80

Arg Asn Asp Asp Gln Val Lys Ile Lys Val Gly Leu His Leu Ser
85 90 95

<210> 32038
<211> 442
<212> PRT
<213> A.fumigatus

<400> 32038
Gly Phe Arg Val Glu Leu Asp Gly Val Ser Ala Ser Leu Ala Ser Cys
1 5 10 15
Pro Gly Val Leu Glu Ala Ala Ala Ile Met Val Glu Gly Asp Val Val
20 25 30
Ala Phe Val Thr Pro Gln Ala Leu Asp Leu Gln Gln Leu Gln Met His
35 40 45
Leu Lys Ala Arg Leu Pro Tyr Tyr Ala Val Pro Thr Gln Val His Arg
50 55 60
Val Asp Glu Phe Pro Leu Thr Pro Asn Gly Lys Ile Asp Lys Arg Ala
65 70 75 80
Leu Ala Gln Leu Ser Arg Pro Gln Lys Lys Thr Ser Gln Ser Asp Thr
85 90 95
Glu Met Leu Asp Glu Lys Lys His Val Val Leu Asn Ala Ser Arg Glu
100 105 110
Thr Val Ser Thr Arg Ser Asp Ser Ser Asp Ser Leu Arg Lys Pro Leu
115 120 125
Pro Leu Ala Glu Lys Lys Asn Arg Lys Val Val Arg Gly Leu Arg Tyr
130 135 140
Arg Ile Phe Ile Val Tyr Arg Arg Leu Phe Thr Leu Ile Trp Leu Ala
145 150 155 160
Asn Val Ala Ala Leu Leu Cys Ile Leu Phe Ile Pro Lys Leu Gly Pro
165 170 175
Gln Trp Ile Ser Thr Ile Ala Phe Ile Asn Leu Thr Ile Ala Val Leu
180 185 190
Val Arg Gln Asp Ala Val Ile Asn Val Leu Tyr Thr Ile Cys Cys Ser
195 200 205
Val Pro Lys Ser Trp Pro Leu Ala Ile Arg Arg Arg Cys Ala Lys Ile
210 215 220
Tyr His Leu Gly Gly Val His Ser Gly Ala Ala Met Ala Ala Thr Ala
225 230 235 240
Trp Phe Ala Gly Ser Ile Gly Tyr Asn Ile Tyr Asn Gln Val Asp Asp
245 250 255
Ala Arg Ala Leu Ala Lys Ala Ser Pro Ala Thr Leu Thr Leu Ser Leu
260 265 270
Ile Val Leu Leu Leu Leu Phe Ser Met Ile Gly Phe Ala Tyr Pro Thr
275 280 285
Phe Arg Lys Lys Arg His Asn Thr Phe Glu Arg Ile His Arg Phe Val
290 295 300
Gly Trp Thr Ile Leu Gly Ile Ile Trp Ile Gln Thr Ile Leu Ser Ile
305 310 315 320
Arg Asp Gln Arg Gly Thr Gln Pro Leu Gly Arg Ala Val Ile Ser Ser
325 330 335
Pro Asn Phe Trp Met Leu Leu Val Ile Thr Ala Ser Ile Ala Ser Ser
340 345 350
Trp Val Phe Leu Arg Lys Val Pro Val Asp Ala Glu Val Leu Ser Asn
355 360 365
His Ala Val Arg Leu His Phe Asp Tyr Thr Met Pro Val Asn Gly Thr

```
    370                 375                 380
Phe Thr Arg Leu Ser Glu Arg Pro Leu Leu Glu Trp His Ser Phe Ala
385                 390                 395                 400
Thr Val Pro Ala Pro Thr Ala Val Asn Gly Arg Pro Lys Gly Tyr Ser
                405                 410                 415
Leu Val Val Ser Arg Ala Gly Asp Trp Thr Gly Arg Gln Ile Ser Lys
            420                 425                 430
Pro Pro Thr His Leu Trp Val Arg Gly Ile
        435                 440
```

<210> 32039
<211> 121
<212> PRT
<213> A.fumigatus

<400> 32039

```
Tyr Pro Val Leu Ser Pro Gln Ser Gly Phe Ile Ser Ser Glu Val His
1               5                   10                  15
Val Thr Glu Ser Ile Arg Phe Thr Val Ala Ser Arg Thr Phe Glu Leu
            20                  25                  30
Leu His Asn Met Thr Asn Pro Gln Val Thr Asn Ala Thr Val Glu Trp
        35                  40                  45
Ile Ala Arg Gly Ala Gly Asn Lys Phe Leu Phe Leu Leu Asp Val Arg
    50                  55                  60
Phe Ala Thr Lys Ala His Thr Leu Leu Gly Gln Pro Glu Val Gly Met
65                  70                  75                  80
Asp Leu Met Pro Gly Gly Gly Gly Gly Gln Tyr Leu Pro Arg Leu Ile
                85                  90                  95
Gly Arg Gly Arg Ala Trp Asn Asn Ile Glu Leu Asp Arg His Tyr Tyr
            100                 105                 110
Gly Gly Cys Gly Gly Asn Gly Phe Asp
        115                 120
```

<210> 32040
<211> 143
<212> PRT
<213> A.fumigatus

<400> 32040

```
Ser Leu Arg Arg Ile Phe Ser Ser Trp Pro Ile Ser Glu Ile Gly Ile
1               5                   10                  15
Ala Gly Arg Ala Asn Asn Met Tyr Asp Ser Arg Ile Glu Asn Leu Asn
            20                  25                  30
Ile Gln Asn Trp Pro Val His Cys Phe Asp Ile Glu His Thr Glu Asn
        35                  40                  45
Met Ile Ile Ser Gly Ile Thr Leu Asp Ile Ser Thr Gly Asp Ala Pro
    50                  55                  60
Arg Ser Ala Ser Gly Ser Lys Pro Ala Ala Gln Pro Thr Ala Ser Ile
65                  70                  75                  80
Ser Pro Leu Ala Pro Thr Ser Pro Val Glu Gln Leu Gly Thr Gln Pro
                85                  90                  95
Gly Arg Leu Arg Arg Gly Leu Lys Arg Gln Pro Arg Arg Arg Arg Leu
            100                 105                 110
His Leu Arg Arg Pro Trp Ala Lys His Arg Leu His Arg Gln Gln Glu
        115                 120                 125
Arg Gln His Arg Arg Arg Gly Asp Leu Gln Leu Ala Gly His Arg
```

130 135 140

<210> 32041
<211> 110
<212> PRT
<213> A.fumigatus

<400> 32041
Arg Ile Lys Leu Asn Ser Arg Thr Thr Gly Glu Val Ser Asn Thr Arg
1 5 10 15
Tyr Glu Asn Val Thr Val Cys Gly Ile Thr Asp Tyr Gly Met Asp Thr
20 25 30
Gln Gln Asp Tyr Leu Asn Gly Gly Pro Thr Asp Lys Pro Thr Asn Gly
35 40 45
Val Lys Ile Glu Asn Ile Thr Phe Val Asp Val Thr Gly Thr Met Arg
50 55 60
Asp Gly Lys Asp Tyr Tyr Ile Leu Cys Gly Asp Gly Ser Cys Ser Ser
65 70 75 80
Leu Ser Leu Lys Met Ala Ala Ser Pro Val Val Val Ala Thr Ala Val
85 90 95
Thr Ile Leu Pro Val Leu Val Leu Arg Leu Asp Cys Thr Lys
100 105 110

<210> 32042
<211> 455
<212> PRT
<213> A.fumigatus

<400> 32042
Pro Arg Cys Tyr Asn Ile Ser Leu Phe Leu His Ser Leu Ala Val Ile
1 5 10 15
Leu Arg Phe Lys Gln Gly Ser Cys Leu Pro Val Ser Ser Ile Met Ala
20 25 30
Trp Gln Arg Pro Asn Cys Ile Val Gln Ala Val Gln Thr Val Arg Ala
35 40 45
Ala Gln Leu Gln Ser Ile Leu Arg Thr Ser Thr Val Thr Ser Gly Ser
50 55 60
Leu Leu Gln Gln Arg Lys Gly Thr Arg Ser Tyr Ala Thr Glu Ala Gln
65 70 75 80
Thr Thr Gly Gly Asn Ala Leu Gln Val Arg Ala Ala Ser Glu Ile Asp
85 90 95
Phe Ser Gln Leu Ala Thr Arg Pro Ala Arg Val Ile Pro Ala Ser Pro
100 105 110
Ala Tyr Phe Ser Gly Ser Pro Lys Phe Ile Asp His Leu Leu Asn Leu
115 120 125
Glu Arg Val Cys Ala Lys Tyr Ala Ser Leu Pro Thr Val Ala Pro Asn
130 135 140
Glu Ala Pro Arg Met Ala Trp Leu Lys Leu Ala Gln Phe Arg Asp Phe
145 150 155 160
Val Gly Glu Pro Val Pro Thr Lys Lys Tyr Lys Ser Leu Val Lys Ile
165 170 175
Leu Gln Arg Leu Asn Arg Ile Glu Pro Ala Leu Val Pro Gly Glu Val
180 185 190
Arg Asp Thr Leu Lys Thr Phe Leu Arg Pro Gly Asn Pro Tyr Gly Asn
195 200 205
Lys Pro Ala Pro Ala Thr Val Asp Glu Met Gly Arg Ala Arg Gly Lys

```
    210                 215                 220
Gly Lys Arg Lys Thr Ser Ser Ala Val Gly Tyr Leu Val Glu Gly Lys
225                 230                 235                 240
Gly Glu Val Met Val Asn Gly Lys Thr Leu Val Glu Ala Phe Pro Arg
                245                 250                 255
Leu His Asp Arg Glu Ser Ala Thr Trp Pro Leu Arg Cys Thr Ser Arg
            260                 265                 270
Leu Asp Lys Tyr Asn Val Trp Ala Thr Val Arg Gly Val Val Ser Leu
        275                 280                 285
Ala Gln Ala Glu Ala Ile Thr Leu Ala Leu Ala Arg Ala Leu Leu Val
    290                 295                 300
His Glu Pro Ala Leu Lys Pro Ile Leu Arg Lys Gly Thr Leu Gln Met
305                 310                 315                 320
Arg Leu Ser Glu Trp Val Val Lys Asn Ile Ala Asp Asn Phe Ser Ser
                325                 330                 335
Trp Cys His Tyr Arg Arg Cys Ser Ser Arg Arg Glu Lys Glu Thr Arg
            340                 345                 350
Ser Arg Gln Gly Ser Gln Asp Ala Asn Leu Gly Gln Glu Met Lys Ala
        355                 360                 365
Cys Leu Phe Ser Leu Gly Pro Gly Val Leu Ser Ala Leu Tyr Ser Val
    370                 375                 380
Tyr Cys Ser His Phe Pro Asp Leu Tyr His Tyr Leu Thr Cys His Leu
385                 390                 395                 400
Asp Ser Ser Leu Asn Met Leu Ser Asp Pro Pro His His Arg Ala Cys
                405                 410                 415
Val Met Gly Val Cys Phe Lys Thr Arg His Leu His Gly Arg Ser Arg
            420                 425                 430
Arg Gln Ala Met Tyr Leu Ser Leu Thr Leu Ile Gly Arg Tyr Pro Gln
        435                 440                 445
Met Thr Met Glu Ser Ile Asp
    450                 455
```

<210> 32043
<211> 300
<212> PRT
<213> A.fumigatus

<400> 32043

```
Ser Val Leu Arg Gly His Pro Arg Ser Arg Leu Arg Met Glu Asp Arg
1               5                   10                  15
Ile Gln Phe Asp Ile Asn Glu Ser Leu Lys Tyr Tyr Leu Ser Asp Pro
            20                  25                  30
Ala Ser Val Pro Thr Asn Asp Ala Asp Pro Glu Leu Leu Asp Cys Glu
        35                  40                  45
Ser Asp Leu Glu His Leu Thr Pro Ala Leu Ile Asp Asn Val Leu Asn
    50                  55                  60
Pro Ile Val Asp Ala Val Ala Glu Ser Pro Glu Ala Leu Ala Arg Gln
65                  70                  75                  80
Ser Phe Phe Asp Ser Leu Gln Phe Leu Leu Lys Cys Ala Met Ala Leu
                85                  90                  95
Ser Ser Phe Ser Glu Phe Pro Gly His Gly Gly Thr Leu Ser Glu Leu
            100                 105                 110
Leu Asn Ser Cys Arg Tyr Ser Ser Phe Leu Pro Thr Lys Ser Leu Ser
        115                 120                 125
Lys Leu Leu Asp Leu Ile Val Ser Gly Leu Ser Leu Glu Ala Asp Ile
    130                 135                 140
```

```
Ile His Gly Asp Leu Glu Ala Glu Glu Gln Asp Ala Ile Gln His His
145                 150                 155                 160
Lys Gln Leu Leu Glu Met Tyr Gly Phe Leu Leu Gln Trp Ala Leu Ser
                165                 170                 175
Ala Val Glu Val Lys Ala Ala Glu Lys Pro Ala Glu Ala Ala Pro Ala
            180                 185                 190
Arg Arg Gly Ala Gly Lys Ser Gly Arg Ser Lys Thr Ser Asn Arg Asp
        195                 200                 205
Gly Thr Trp Asp Trp Thr Ala Gln Ile Gln Ile Ser Met Glu Thr Met
    210                 215                 220
Cys Lys Val Met Lys Leu Lys Leu Ser Arg Ile Phe Met Thr Thr Ser
225                 230                 235                 240
Asp Arg Asp Thr Phe Ile Asn Leu Phe Thr Arg Ala Ile Tyr Leu Ile
                245                 250                 255
Leu Glu Ser Glu Gln Arg Val Lys Ser Leu Ala Ile Arg Met His Ala
            260                 265                 270
Phe Lys Val Leu Cys Ile Ala Val Lys His His Gly His Ala Phe Gly
        275                 280                 285
Arg Val Gln Glu His Asn Glu Gln Ser Cys Leu Ser
    290                 295                 300
```

<210> 32044
<211> 343
<212> PRT
<213> A.fumigatus

```
<400> 32044
Leu Leu Pro Gln Ser Tyr Thr Leu Arg Cys Ala Val Val Glu Val Cys
1               5                   10                  15
Gly Asn Leu Ile Ala Asp Leu Ser Arg Gln Glu Glu Arg Ser Glu Asn
            20                  25                  30
Tyr Lys Thr Gln Ile Asn Ala Phe Phe Asp Val Leu Glu Glu Arg Phe
        35                  40                  45
Leu Asp Val Asn Pro Tyr Cys Arg Cys Arg Ala Ile Gln Val Tyr Met
    50                  55                  60
Arg Ile Cys Asp Leu Glu Gln Lys Phe Pro Lys Arg Arg Gln Ala Val
65                  70                  75                  80
Ala Glu Leu Ala Ala Arg Ser Leu Glu Asp Lys Ser Ser Asn Val Arg
                85                  90                  95
Arg Asn Ala Ile Lys Leu Leu Ala Lys Leu Val Ser Thr His Pro Phe
            100                 105                 110
Ser Val Met His Gly Gly Gln Leu Ser Tyr Lys Glu Trp Ala Ala Arg
        115                 120                 125
Leu Glu Asn Val Asp Ala Glu Leu Asn Ala Leu Arg Pro Pro Glu Thr
    130                 135                 140
Pro Gly Phe Asp Gly Gly Glu Ala Ser His Val Asp Ser Glu Leu Leu
145                 150                 155                 160
Asp Asp Ala Thr Gln Ile Pro Glu Asp Ser Pro Ser Lys Ala Pro Arg
                165                 170                 175
Met Thr Asp Ala Glu Lys Ala Ala Ala Ile Gln Arg Ala Ala Glu Gln
            180                 185                 190
Ala Ala Thr Ser Glu Leu Leu Ala Arg Leu Gln Leu Thr Arg Lys Tyr
        195                 200                 205
Tyr Asn Glu Ala Ile Arg Phe Ile Glu Val Leu His Ser Ala Ser Ala
    210                 215                 220
Val Val Ser Gln Leu Leu Ser Ser Arg Asn Lys Ser Glu Val Ile Glu
```

```
225                 230                 235                 240
Ala Met Asp Phe Phe Val Val Leu Asp Ala Tyr Lys Val Glu Thr Ala
                245                 250                 255
Arg Ser Gly Ile Arg Arg Met Leu Arg Leu Ile Trp Thr Lys Gly Asn
            260                 265                 270
Ser Asp Glu Gly Lys Gly Val Gln Thr His Leu Ile Asp Cys Tyr Lys
        275                 280                 285
Gly Leu Phe Phe Asp Ala Pro Asp Ser Phe Gly Pro Asn Asp Ala Ala
    290                 295                 300
Asn Tyr Val Ala Arg Asn Ile Ile Ser Leu Thr Phe Gly Ser Thr Pro
305                 310                 315                 320
Ala Glu Leu Thr Cys Leu Glu Gln Leu Leu Ser Thr Met Met Lys Ala
                325                 330                 335
Gly His Ile Ser Asp Val Phe
            340
```

<210> 32045
<211> 122
<212> PRT
<213> A.fumigatus

```
<400> 32045
Gln Arg Leu Leu Gln His Arg Leu Asn Trp Thr Ile Asp Tyr Asn Thr
1               5                   10                  15
Gly Ala Tyr Arg Ala Gln Phe Pro Thr Pro Thr Gly Asn Pro Ala Asp
            20                  25                  30
Pro Thr Leu Thr Ser His Gly Val Arg Gln Ser His Glu Phe Ala Ala
        35                  40                  45
His Ile Ser Ser Pro Arg Phe Gln Pro Lys Pro Phe Arg Val Tyr Cys
    50                  55                  60
Ser Pro Phe Tyr Arg Cys Leu Gln Thr Ile Gln Pro Thr Val Glu Ala
65                  70                  75                  80
Leu Lys Ala Lys Gln Gln Gln Gln Gln Gln Gln Gln His Glu Glu Ser
                85                  90                  95
Ser Asp Ile Asp Ala Cys Ala Asp Phe Asp Val Arg Val Glu Asn Gly
            100                 105                 110
Ile Gly Leu Ala Pro Thr Leu Pro Gln Leu
        115                 120
```

<210> 32046
<211> 268
<212> PRT
<213> A.fumigatus

```
<400> 32046
Ser Ala Ser Lys His Cys Asn Pro Thr Val Glu Gly Ser Thr His Gln
1               5                   10                  15
Pro Leu Ser Ala Pro Glu Leu Arg Asn Pro Gln Ser Pro Phe Phe Thr
            20                  25                  30
Gln Ser His Pro Pro Pro Thr Pro Phe Pro Pro Arg Gln Ser Gly Thr
        35                  40                  45
Phe Val Ser Ala Arg Arg Ile Phe Val Pro Gly Ala Asn Ala Ser Thr
    50                  55                  60
Pro Thr Pro Ala Val Pro Thr Leu Phe Pro Leu Leu Arg Asn Val Leu
65                  70                  75                  80
Asn Pro Ala Val Lys Thr Lys Lys Ser Ser Val Glu Leu Ser Ser Gly
```

```
                85                  90                  95
Ile Ala Pro Val Asn Ala Arg Pro Met Ala Ile Ser Gly Ala Ala Cys
            100                 105                 110
Glu Gln Ile Ser Ser Ala Leu Leu Val Arg Trp Ser Gly Arg Cys Asp
        115                 120                 125
Ser Ser Arg Ala Ala Ile Ser Ala Ser Thr Ser Ala Ile Met Pro Ala
    130                 135                 140
Ser Ala Val Ala Arg Arg Leu Cys Ser Trp Ala Met Val Ser Pro Arg
145                 150                 155                 160
Gly Glu Gly Met Arg Cys Gly Leu Cys Phe Glu Gly Ser Asp Gly Arg
                165                 170                 175
Met Leu Gly Lys Trp Val Trp Arg Val Gly Gly Val Ala Gly Glu Gly
            180                 185                 190
Cys Ser Lys Lys Glu Val Gly Pro Asn His Ser Leu Val Ser Leu Asn
        195                 200                 205
Gln Gln Cys Ile Phe Tyr Asn Cys Gly Lys Val Gly Ala Asn Pro Ile
    210                 215                 220
Pro Phe Ser Thr Leu Thr Ser Lys Ser Ala Gln Ala Ser Met Ser Leu
225                 230                 235                 240
Leu Ser Ser Cys Cys Cys Cys Cys Cys Cys Cys Cys Phe Ala Phe Ser
                245                 250                 255
Ala Ser Thr Val Gly Trp Ile Val Cys Arg Gln Arg
            260                 265
```

<210> 32047
<211> 408
<212> PRT
<213> A.fumigatus

<400> 32047

```
Gln Thr Arg Val Ser Leu Ala Lys Trp Ala Phe Gln Thr Val Pro Gln
1               5                   10                  15
Thr Ser Lys Phe His Pro Thr Gly Thr Pro Ala Gln Glu Ser Gly Gly
            20                  25                  30
Ser Tyr Arg Cys Pro Tyr Ser Ser Gln Val Lys Tyr Pro Glu Asp Gln
        35                  40                  45
Leu Gln Leu Gly Ile Ala His Pro Ala Glu Arg Ile Ile Arg Ile Arg
    50                  55                  60
Asn Gln Leu Cys Glu Met Leu Asp Asp Leu Tyr Ser Asp Pro Arg Ala
65                  70                  75                  80
Ala Arg Asn Gly Asn Ile Glu Ala Leu Leu Ala Arg Val Phe Asn Ile
                85                  90                  95
Tyr Thr Arg Ala Asp Gln Leu Arg Val Thr Gln Ser Arg Leu Gln Pro
            100                 105                 110
Thr Leu Ala Thr Asn Ala Ser Ala Asn Ala Glu Pro Ala Gln Pro Pro
        115                 120                 125
Leu Tyr Leu Leu Ser Ser Pro Gly Gly Tyr Gln Ala Leu Val Ala Ser
    130                 135                 140
Pro Gly Ala Thr Asn Ser Ile Gln Ala Leu Val Ala Ser Phe His Val
145                 150                 155                 160
Ser Gln Thr Pro Glu Phe Thr Pro Ile Gln Ala Pro Ala Gln Pro Ala
                165                 170                 175
Arg Phe Arg Ala Asn Gln Glu Ala Val Val Leu Glu Asn Val Val Arg
            180                 185                 190
Gln Ala Val Leu Asn Gln Arg Ala Val Asn Asn Gly Pro Val Asp Leu
        195                 200                 205
```

```
Ser Arg Tyr Ile Arg Arg Ile Trp Leu Phe Val Arg Leu Tyr Phe Phe
    210                 215                 220
Cys Tyr Met Phe Ser Glu Pro Gly Thr Trp Leu Arg Val Leu Tyr Val
225                 230                 235                 240
Thr Leu Ala Val Ile Ala Ser Leu Leu Ser Glu Thr Asn Ile Pro Arg
                245                 250                 255
Gln Leu Phe Asn Leu Thr Val Ala Pro Leu Gln Arg Tyr Leu Glu Gly
            260                 265                 270
Leu Leu His Val Ala Pro Asp Ala Ala Gly Asn Asn Gly Thr Arg Ala
        275                 280                 285
Ala Val Asn Gly Thr Gly Met Leu Asn Asp Asn Arg Ala Ser Leu Pro
    290                 295                 300
Gly Gln Leu Arg Gln Gly Ile Gln Arg Leu Glu Arg Ser Ala Ala Leu
305                 310                 315                 320
Phe Val Ala Ser Leu Val Pro Gly Val Gly Glu Arg Gln Ile Glu Val
                325                 330                 335
Arg Asn Ala Ala Glu Ala Ala Arg Asn Ala Gln Leu Ala Arg Glu Glu
            340                 345                 350
Glu Glu Arg Arg Arg Gln Gln Glu Thr Ala Gly Asn Gly Glu Asn Ser
        355                 360                 365
Ala Glu Arg Gln Glu Pro Arg Glu Glu Ala Asp Gly Ala Asn Glu Arg
    370                 375                 380
Val Glu Pro Ala Glu Gln Asn Ile Met Thr Thr Asn Gln Ser Glu Pro
385                 390                 395                 400
Leu Ile Pro Leu Glu Pro Asp Glu
                405
```

<210> 32048
<211> 128
<212> PRT
<213> A.fumigatus

<400> 32048

```
Pro Pro Ser Asp Arg Ser Arg Tyr Asp Thr Gly Thr Ile Ser Gly Ile
1                   5                   10                  15
Leu Ala Met Pro Tyr Trp Gln Glu Leu Phe Ser Thr Gly Tyr Arg Asp
            20                  25                  30
Pro Thr Gly His Pro Asn Ile Thr Ser Ser Gln Ser Ala Ala Ile Val
        35                  40                  45
Ser Ile Leu Ser Ala Gly Thr Phe Phe Gly Ala Leu Gly Ala Ala Pro
    50                  55                  60
Met Gly Asp Arg Ile Gly Arg Arg Trp Gly Leu Ile Ala Ser Ala Gln
65                  70                  75                  80
Val Phe Asn Leu Gly Val Ile Leu Gln Thr Ala Ala Thr Gly Ile Pro
                85                  90                  95
Leu Phe Leu Ala Gly Arg Phe Phe Ala Gly Leu Gly Val Gly Leu Ile
            100                 105                 110
Ser Ala Leu Ser Met Ser Ser Leu Ser His Gly Ile Pro Gly Phe Asp
        115                 120                 125
```

<210> 32049
<211> 162
<212> PRT
<213> A.fumigatus

<400> 32049

```
Trp Thr Val Pro Leu Tyr Gln Ser Glu Thr Ala Pro Lys Trp Ile Arg
1               5                  10                  15
Gly Thr Ile Val Gly Ala Tyr Gln Leu Ser Ile Thr Ile Gly Leu Leu
            20                  25                  30
Leu Ala Ser Ile Val Asn Asn Ser Thr Gln Asn Arg Met Asp Thr Gly
        35                  40                  45
Cys Tyr Arg Ile Pro Ile Ala Val Gln Phe Ala Trp Ser Ile Ile Leu
    50                  55                  60
Val Gly Gly Met Leu Ile Leu Pro Asp Thr Pro Arg Tyr Leu Ile Lys
65                  70                  75                  80
Arg Gly Asn Ile Asp Gly Ala Ala Arg Ala Leu Gly Arg Leu Arg Arg
                85                  90                  95
Leu Pro Ala Asp Asp Pro Ala Val Arg Glu Glu Leu Ala Glu Ile Gln
            100                 105                 110
Ala Asn His Glu Tyr Glu Leu Ser Leu Gly Lys Ser Thr Tyr Leu Asp
        115                 120                 125
Cys Phe Lys Gly Asn Leu Leu Lys Arg Leu Leu Thr Gly Cys Gly Leu
    130                 135                 140
Gln Ala Leu Gln Gln Leu Thr Val Tyr Thr Ala Gly Gly Trp Lys Val
145                 150                 155                 160
Pro Ser
```

<210> 32050
<211> 104
<212> PRT
<213> A.fumigatus

```
<400> 32050
Ile Pro Thr Glu Ala Ser Arg Pro Gln Thr Pro Ser Thr Lys Cys Ser
1               5                  10                  15
Ser Asn Ser Ser Lys Ile Gln Ser Gly Pro Gly Pro Pro Lys Trp Ser
            20                  25                  30
Glu Asn Phe Phe Ser Pro Pro Arg Gln Pro Pro Gly Lys Pro Ala Gly
        35                  40                  45
Leu Ala Pro Pro Gly Ile Pro Lys Gly Ala Ser Ser Tyr Pro Pro Lys
    50                  55                  60
Gly Asn Leu Asn Cys Pro Gln Phe Asn Pro Gly Thr Gly Pro Thr Ser
65                  70                  75                  80
Val Lys Pro Gly Asn Met Val Trp Pro Asn Ser Lys Leu Pro Pro Arg
                85                  90                  95
Lys Gln Gln Asn Pro Gly Glu Ile
            100
```

<210> 32051
<211> 85
<212> PRT
<213> A.fumigatus

```
<400> 32051
Arg Leu Leu Pro Thr Thr Ser Lys Asp Thr Lys Arg Asp Pro Phe Pro
1               5                  10                  15
Leu Val Ala Leu Gly Val Ala Leu Ile Met Arg Leu Val Ser Gly Tyr
            20                  25                  30
Pro Ser Ser Val Ser Asp Phe Ile Ser Asp Leu Leu Thr Ile Asp Ile
        35                  40                  45
```

```
Ala Ala Cys Val Glu Asp Val Pro Phe Lys Thr Leu Val Arg Ile Arg
    50                  55                  60
Ile Ser Ser Leu Phe Asp Ser Leu Lys Lys Gln Leu His Ala Leu Thr
65                  70                  75                  80
Ile Ala Lys Ile Asn
                85
```

<210> 32052
<211> 205
<212> PRT
<213> A.fumigatus

<400> 32052

```
Ala Pro Leu Leu Phe Gly Leu Val Lys Leu Leu Tyr Ser Tyr Cys Ile
1               5                  10                  15
Gln Leu Gly Asp Lys Ser Val Asn Tyr Ser Leu Pro Asp Gln Met Leu
            20                  25                  30
Ser Tyr Pro Ala His Pro Ile Tyr Pro Pro Ile Tyr Ser Gly Asp Glu
        35                  40                  45
Leu Ser His Pro Pro Gly Ala Met Thr Pro Ser Asp Val Ser Ser Ser
    50                  55                  60
Ile Ser Pro Pro Asn Gly Gln Leu Gly Asn Ile Lys Tyr Ser Thr Pro
65                  70                  75                  80
Val Ala Gly Glu Ser Ile Ala Ser Ala Leu Ser Gln Glu Glu Glu Leu
                85                  90                  95
Arg Arg Ala Ala Glu Glu Asp Arg Arg Arg Arg Asn Thr Ala Ala Ser
            100                 105                 110
Ala Arg Phe Arg Met Lys Lys Lys Gln Arg Glu Gln Thr Leu Glu Arg
        115                 120                 125
Thr Val Arg Glu Thr Thr Glu Lys Asn Ala Ser Leu Glu Ala Arg Val
    130                 135                 140
Ala Gln Leu Glu Met Glu Asn Arg Trp Leu Lys Asn Leu Leu Thr Glu
145                 150                 155                 160
Lys His Glu Ala Ser Ala Ser Arg Met Ala Pro Pro Pro Thr Asp Ser
                165                 170                 175
Thr Ala Leu Asn Ser Lys Thr Asn Gly Leu Ala Gly Ser Gly Gln Lys
            180                 185                 190
His Ile Gln Pro Lys Lys Lys Gly Val Gly Thr Asp Asn
        195                 200                 205
```

<210> 32053
<211> 204
<212> PRT
<213> A.fumigatus

<400> 32053

```
Arg Val Ser Ser Ala Gly Gly Leu Gly Gly Asp Gly Ala Ser Ala Arg
1               5                  10                  15
Gly Ala Gly Leu Leu His Glu Gly Ala Ala Gly Thr Gly Arg Leu Gly
            20                  25                  30
Ser Gly Gly Asp Ser Gly Arg Ala Thr Lys Val Ala Gly Gly Gly Ser
        35                  40                  45
Arg Ala Leu Leu Gly Val Val Leu Val Glu Gln Glu Val Glu Leu Leu
    50                  55                  60
Leu Gly Gly Ala His Ala Ile Gly Ala Val Ala Ala Cys Gly Ser Val
65                  70                  75                  80
```

```
Ala Gly Asp Ala Gly Ala Val Ser Val Ala Ala Asp Lys Thr Glu Lys
                  85                  90                  95
Val Ala Val Leu Val Ala Ala Asp Gly Val Leu Asp Asp Thr Gly Gly
             100                 105                 110
Gly Val Ala His Ala Gly Ala Glu Leu Leu Val Arg Gly Arg Gly Gln
         115                 120                 125
Gly Thr Gly Ala Gly Lys Pro Leu Ala Val Asp Gly Arg Ala Ala Leu
     130                 135                 140
Gln Ser Cys Val Gly Gly Gly Val Gly Gly Phe Ile Gly Ala Gly Gly
145                 150                 155                 160
Val Gly Val Val Val Asp Leu Ala Gly Val Val Leu Glu Val Gly His
                 165                 170                 175
Gly Ala Asp Ala Gly Ala Val Asn Ser Gly Asp Lys Thr Trp Met Asp
             180                 185                 190
Gln Leu Arg Pro Met Thr Gly Ser Lys Ser Leu Pro
         195                 200
```

<210> 32054
<211> 246
<212> PRT
<213> A.fumigatus

<400> 32054

```
Ser Ser His Trp Pro Gln Leu Ile His Pro Gly Leu Val Ser Ala Val
1                   5                  10                  15
Asp Ser Thr Ser Val Ser Thr Met Ala Asp Phe Lys Tyr Tyr Ser Ser
             20                  25                  30
Gln Ile Asn Asn Asn Ala Asn Pro Ser Gly Thr Asn Lys Ala Ser Tyr
         35                  40                  45
Thr Pro Thr Asn Thr Ala Leu Gln Ser Cys Pro Thr Val Asn Ser Gln
     50                  55                  60
Trp Leu Ala Ser Ala Ser Pro Leu Pro Pro Thr Pro Asn Glu Gln Leu
65                  70                  75                  80
Cys Thr Cys Met Ser Asn Ala Ala Ser Cys Val Val Lys Asp Ser Val
                 85                  90                  95
Ser Ser Asp Glu Tyr Gly Asp Leu Phe Ser Leu Ile Cys Gly Tyr Thr
             100                 105                 110
Asp Cys Thr Gly Ile Ala Arg Asn Ala Thr Thr Gly Ser Tyr Gly Ala
         115                 120                 125
Tyr Gly Met Cys Thr Pro Lys Gln Gln Leu Asn Phe Leu Leu Asn Lys
     130                 135                 140
Tyr Tyr Ser Glu Gln Ser Ser Ala Ser Ser Ala Cys Asn Phe Gly Gly
145                 150                 155                 160
Ser Ala Thr Val Thr Ser Ala Thr Lys Ala Thr Gly Ala Cys Ser Ser
                 165                 170                 175
Leu Met Lys Glu Ala Gly Thr Ala Gly Thr Gly Thr Val Thr Ser Lys
             180                 185                 190
Pro Thr Gly Thr Ala Asp Ser Ser Gly Ser Ser Ala Ser Ser Thr Ser
         195                 200                 205
Ser Ser Gly Thr Ala Val Ala Leu Thr Arg Gly Ser Ala Val Thr Val
     210                 215                 220
Gly Ser Phe Glu Leu Gly Val Tyr Ala Ile Thr Ala Leu Leu Thr Ala
225                 230                 235                 240
Val Gly Met Val Met Leu
                 245
```

JC542 U.S. PTO
09/417507
10/14/99

<210> 32055
<211> 274
<212> PRT
<213> A.fumigatus

<400> 32055
Met Arg His Met Arg Leu Thr Ser Thr Glu Asp Tyr Ser Ser Asn Gly
1 5 10 15
Thr Thr Asp Gly Ser Ser Thr Tyr Ile Asp Pro Leu Ser Asp Ala Thr
20 25 30
Leu Cys Lys Arg Asp Val Pro Ile Phe Arg Glu Leu Asn Thr Asn Thr
35 40 45
Ile Arg Val Tyr Ala Ile Asp Pro Thr Ala Asn His Thr Glu Cys Met
50 55 60
Gln Met Leu Ala Asp Ala Gly Ile Tyr Val Ile Ser Asp Leu Ser Asp
65 70 75 80
Pro Ser Gln Ser Ile Asp Arg Ser Asp Pro Ser Trp Glu Thr Thr Leu
85 90 95
Tyr Asn Arg Tyr Thr Ser Val Ile Asp Ala Leu Ala Pro Tyr Asn Asn
100 105 110
Thr Leu Gly Phe Phe Ala Gly Asn Gln Val Ser Asn Thr Val Gly Thr
115 120 125
Thr Asp Ala Ser Ala Phe Val Lys Ala Ala Val Arg Asp Met Lys Ala
130 135 140
Tyr Ile Lys Glu Lys Gly Tyr Arg Ser Met Gly Val Gly Tyr Ala Thr
145 150 155 160
Asn Asp Asp Ser Ser Ile Arg Val Asn Met Ala Asp Tyr Phe Asn Cys
165 170 175
Glu Asp Ser Asp Glu Ser Ile Asp Phe Trp Gly Tyr Asn Ile Tyr Ser
180 185 190
Trp Cys Gly Asp Ser Ser Tyr Thr Glu Ser Gly Tyr Ser Val Arg Thr
195 200 205
Glu Glu Phe Arg Asn Tyr Ser Val Pro Val Phe Phe Ala Glu Tyr Gly
210 215 220
Cys Asn Glu Val Thr Pro Arg Lys Phe Thr Glu Ile Glu Ala Leu Phe
225 230 235 240
Gly Asp Lys Met Asn Asp Val Trp Ser Gly Gly Ile Val Tyr Met Tyr
245 250 255
Phe Gln Glu Ala Asn Asn Tyr Gly Lys Leu Phe Asp Pro Val Ile Gly
260 265 270
Arg Asn

<210> 32056
<211> 101
<212> PRT
<213> A.fumigatus

<400> 32056
Arg His Thr Ser Arg Arg Arg Asp Thr Ala Gln Trp Glu Ser Ala Thr
1 5 10 15
Arg Pro Thr Met Thr Arg Pro Ser Ala Ser Thr Trp Leu Thr Thr Ser
20 25 30
Thr Ala Lys Thr Val Thr Ser Arg Leu Thr Ser Gly Asp Thr Thr Ser
35 40 45
Thr Pro Gly Val Val Ile Arg Pro Thr Leu Ser Leu Gly Thr Val Phe

```
    50                  55                  60
Ala Gln Lys Ser Ser Gly Thr Thr Pro Cys Leu Ser Ser Leu Pro Ser
65                  70                  75                  80
Met Val Ala Thr Arg Ser Leu Pro Ala Ser Ser Gln Lys Ser Lys Pro
                85                  90                  95
Cys Leu Glu Thr Arg
            100
```

<210> 32057
<211> 133
<212> PRT
<213> A.fumigatus

<400> 32057

```
Ile Ile Thr Ile Thr Ser Gly Ile Leu Arg Asp Asn Val Pro Asp Gly
1               5                  10                  15
Asp Met Thr Ile Ser Asn Thr Gly His Asp Leu Asn Arg Ile Cys Leu
            20                  25                  30
Val Leu Asp Glu Ile Ile Pro Thr Trp Arg Ala His Ser Ser Ile Leu
        35                  40                  45
Met Thr His Pro Ser Ala Ser Phe Gly Met Trp Pro Cys Val Gln Cys
    50                  55                  60
Asn Leu Glu Asn Ile Arg Val Thr Leu Gln Gln Leu Arg Gln Glu Leu
65                  70                  75                  80
Glu Pro Val Ala Glu Ser Gly Gln Lys Lys Arg Ser Leu Phe Lys Val
                85                  90                  95
Tyr Ala Lys Ala Trp Lys Leu Gly Leu His Ser Arg Ala Ile Ile Ala
            100                 105                 110
Tyr Arg Gly Arg Leu Glu Pro His Arg Lys Ala Leu Arg Val Gly Ala
        115                 120                 125
Thr Met Met Asn Met
    130
```

<210> 32058
<211> 160
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (102)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32058

```
Ala Met Thr Val Arg Cys Thr Cys Val Ser Val Ser Phe Phe Ser Phe
1               5                  10                  15
Phe Arg Phe Thr Glu Pro Asn Gln Ala Glu Glu Ile Lys Asp Ala Ala
            20                  25                  30
Glu Thr Leu Pro Lys Ala Met Met Ser Ala Val Ala Val Asn Gly Val
        35                  40                  45
Leu Gly Phe Val Met Val Val Thr Leu Cys Phe Thr Leu Gly Asp Val
    50                  55                  60
Asp Ser Ile Leu Ser Thr Pro Thr Gly Phe Pro Phe Ile Gln Ile Phe
65                  70                  75                  80
Tyr Asn Thr Thr Asn Ser Tyr Ala Ala Thr Asn Thr Met Thr Ala Val
                85                  90                  95
```

```
Leu Val Ile Thr Leu Xaa Ala Ser Thr Ile Thr Glu Val Ala Thr Ala
            100                 105                 110
Phe Pro Gln Leu Trp Ser Phe Ala Arg Asp Gln Gly Leu Pro Phe Ser
        115                 120                 125
Ser Phe Phe Ala Tyr Val Ser Leu Thr Pro Pro Ile Ser Gly Arg Arg
    130                 135                 140
Tyr Trp Ser Pro Lys Cys Lys Ser Thr Pro Gly Leu Asp Ile Pro Phe
145                 150                 155                 160
```

<210> 32059
<211> 87
<212> PRT
<213> A.fumigatus

<400> 32059

```
Met Ile Asn Gln Ala Ser Ser His Arg Asp Ile Lys Leu Asn Arg Gly
1               5                   10                  15
Ala Cys Ile Ala Arg Val Val Gly Ser Cys Asn His Gly Val Cys Ile
            20                  25                  30
Glu Met Gly Leu His Asp Leu Ile Lys Pro Ser His Ser Ile Val Glu
        35                  40                  45
Ile Val Ser Val Ala Gly Val Ser Ile Leu Leu Trp Ala Val Glu Tyr
    50                  55                  60
Ser Leu Ile Ala Leu Glu Leu Leu Ser Lys Lys Met Val Gly Val Asp
65                  70                  75                  80
Gln Gly Ile Thr Met Ala Leu
                85
```

<210> 32060
<211> 204
<212> PRT
<213> A.fumigatus

<400> 32060

```
Glu Cys Leu Ser Ala Leu Asp Arg Ala Leu Phe Asp Asp Ser Arg Ala
1               5                   10                  15
Pro Thr Ser Gly Gly Gln Tyr His Trp Val Ser Glu Phe Ala Pro Arg
            20                  25                  30
Arg Ala Gln Lys Phe Leu Ser Tyr Ile Thr Gly Arg His Gln Asp Leu
        35                  40                  45
Gly Val Ser Arg Ala Glu Leu Thr Leu Ile Gly Trp Leu Ser Ala Thr
    50                  55                  60
Gly Trp Gln Cys Ala Ile Val Ser Ile Ala Phe Leu Ala Gly Thr Ile
65                  70                  75                  80
Ile Gln Gly Leu Val Val Leu Asn Asp Pro Thr Tyr Glu Phe Gln Arg
                85                  90                  95
Trp His Gly Thr Leu Leu Val Val Ala Ile Thr Thr Phe Ser Ile Leu
            100                 105                 110
Phe Asn Thr Phe Leu Ala Lys Asn Leu Pro Met Val Glu Gly Leu Ile
        115                 120                 125
Leu Ile Ile His Val Val Gly Leu Phe Ala Ile Ile Ile Pro Leu Trp
    130                 135                 140
Val Leu Ala Pro Arg Asn Ser Ala Lys Ala Val Phe Thr Glu Phe Asn
145                 150                 155                 160
Asn Ala Gly Gly Trp Asp Ser Asp Gly Thr Ala Thr Leu Val Gly Leu
                165                 170                 175
```

```
Ser Thr Thr Ile Thr Ala Met Ile Gly Tyr Asp Cys Ser Val His Met
            180                 185                 190
Cys Lys Cys Val Phe Phe Phe Phe Phe Ser Phe Tyr
        195                 200
```

<210> 32061
<211> 475
<212> PRT
<213> A.fumigatus

<400> 32061

```
Asn Arg Leu Ala Trp Asn Arg Asn Pro Glu Thr Pro Leu Gly Ile Arg
1               5                   10                  15
Thr Lys Arg Ile Val Ile Phe Met Ser Asp Gln Leu Phe Gln Lys Leu
            20                  25                  30
Phe Thr Arg Thr Asp Ser Ser Gln Glu Ser Tyr Gly Ile Pro Ser Leu
        35                  40                  45
Ser Gln Gly Met Ala Gly Val Lys Thr Tyr Ile Lys Pro Phe Pro Asn
    50                  55                  60
Ala Asn Ile Asp Phe Phe Asn Val Gln Glu Thr Ile Met His Met Leu
65                  70                  75                  80
Gly Tyr Ala Arg Lys Gly Lys Glu Phe Glu Ile Leu Arg Asn Phe Arg
                85                  90                  95
Gly Val Leu His Pro Gly Glu Met Val Leu Val Leu Gly Arg Pro Gly
            100                 105                 110
Ser Gly Cys Thr Thr Phe Leu Lys Thr Ile Thr Asn Gln Arg Phe Gly
        115                 120                 125
Tyr Thr Ser Ile Asp Gly Asp Val Leu Tyr Gly Ile Phe Asp Ala Asp
    130                 135                 140
Thr Phe Ala Lys Arg Phe Arg Gly Glu Ala Val Tyr Asn Gln Glu Asp
145                 150                 155                 160
Asp Val His Gln Pro Thr Leu Thr Val Lys Gln Thr Leu Gly Phe Ala
                165                 170                 175
Leu Asp Thr Lys Thr Pro Gly Lys Arg Pro Leu Gly Val Ser Lys Ala
            180                 185                 190
Glu Phe Arg Glu Lys Val Ile Asn Met Leu Leu Lys Met Phe Asn Ile
        195                 200                 205
Glu His Thr Ala Asn Thr Val Ile Gly Asn Gln Phe Ile Arg Gly Val
    210                 215                 220
Ser Gly Gly Glu Arg Arg Arg Val Ser Ile Ala Glu Met Met Ile Thr
225                 230                 235                 240
Ser Ala Thr Val Leu Ala Trp Asp Asn Ser Thr Arg Gly Leu Asp Ala
                245                 250                 255
Ser Thr Ala Leu Asp Phe Ala Lys Ser Leu Arg Ile Met Thr Asn Ile
            260                 265                 270
Tyr Lys Thr Thr Thr Phe Val Ser Leu Tyr Gln Ala Ser Glu Asn Ile
        275                 280                 285
Tyr Lys Gln Phe Asp Lys Val Leu Val Ile Asp Ser Gly Arg Gln Val
    290                 295                 300
Phe Phe Gly Pro Ala Ser Glu Ala Arg Ser Tyr Phe Glu Ser Leu Gly
305                 310                 315                 320
Phe Lys Glu Arg Pro Arg Gln Thr Thr Pro Asp Tyr Leu Thr Gly Cys
                325                 330                 335
Thr Asp Pro Phe Glu Arg Glu Phe Lys Glu Gly Arg Ser Glu Asp Asp
            340                 345                 350
Val Pro Ser Thr Pro Asp Ser Leu Val Glu Ala Phe Asn Arg Ser Ser
```

```
        355                 360                 365
Tyr Ser Glu Arg Leu Ala Gln Glu Met Asp Ala Tyr Arg Lys Lys Leu
    370                 375                 380
Glu Gln Glu Lys His Val Tyr Glu Asp Phe Glu Ile Ala Asn Gln Glu
385                 390                 395                 400
Ala Lys Arg Lys Phe Thr Pro Lys Ser Ser Val Tyr Ser Ile Pro Phe
                405                 410                 415
His Leu Gln Ile Trp Ala Leu Met Gln Arg Gln Phe Leu Ile Lys Trp
            420                 425                 430
Gln Asp Arg Phe Ala Gln Thr Val Ser Trp Ile Thr Ser Thr Gly Val
        435                 440                 445
Ala Ile Ile Leu Gly Thr Val Trp Leu Arg Leu Arg Lys Thr Ile Gly
    450                 455                 460
Arg Ser Ile Tyr Gln Gly Trp Phe Thr Leu His
465                 470                 475

<210> 32062
<211> 493
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (30)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32062
Val Gln Phe Gly Cys Asp Cys Glu Lys Leu Leu Ala Gly Ala Phe Thr
1               5                   10                  15
Arg Gly Gly Leu Leu Phe Ile Ser Leu Leu Phe Asn Gly Xaa Gln Ala
            20                  25                  30
Phe Ser Glu Leu Val Ser Thr Met Met Gly Arg Ser Ile Val Asn Lys
        35                  40                  45
His Arg Gln Phe Thr Phe Tyr Arg Pro Ser Ala Leu Trp Ile Ala Gln
    50                  55                  60
Ile Leu Val Asp Thr Thr Phe Ala Ile Ala Arg Ile Leu Val Phe Ser
65                  70                  75                  80
Ile Ile Val Tyr Phe Met Cys Gly Leu Val Leu Asp Ala Gly Ala Phe
                85                  90                  95
Phe Thr Phe Ile Leu Ile Ile Val Leu Gly Tyr Leu Cys Met Thr Cys
            100                 105                 110
Phe Phe Arg Val Ile Gly Cys Met Ser Pro Asp Phe Asp Tyr Ala Met
        115                 120                 125
Lys Phe Ala Ser Val Val Ile Thr Leu Phe Val Leu Thr Ser Gly Tyr
    130                 135                 140
Leu Ile Gln Trp Ser Ser Glu Gln Glu Trp Leu Arg Trp Leu Tyr Tyr
145                 150                 155                 160
Ile Asn Pro Phe Gly Leu Gly Phe Ala Ala Leu Met Val Asn Glu Phe
                165                 170                 175
Lys Asp Leu Thr Met Thr Cys Thr Ala Asp Ser Leu Val Pro Ser Gly
            180                 185                 190
Pro Gly Tyr Asp Asp Met Ala Ser Arg Val Cys Thr Leu Ala Gly Gly
        195                 200                 205
Glu Pro Gly Ser Val Ile Ile Pro Gly Ala Ser Tyr Leu Ala Lys Thr
    210                 215                 220
Phe Ser Tyr Phe Pro Gly Asp Leu Trp Arg Asn Phe Gly Ile Met Val
```

```
225                 230                 235                 240
Ala Leu Thr Val Gly Phe Leu Thr Leu Asn Leu Tyr Leu Gly Glu Thr
                245                 250                 255
Leu Gln Phe Gly Ala Gly Gly Arg Thr Val Thr Phe Tyr Gln Lys Glu
            260                 265                 270
Asn Lys Glu Arg Arg Ala Leu Asn Gly Ala Leu Met Glu Lys Arg Thr
        275                 280                 285
Asn Arg Glu Ser Lys Asp Gln Ser Ala Ala Asn Leu Lys Ile Thr Ser
    290                 295                 300
Lys Ser Val Phe Thr Trp Glu Asp Val Cys Tyr Asp Val Pro Val Pro
305                 310                 315                 320
Ser Gly Thr Arg Arg Leu Leu Gln Ser Val Tyr Gly Tyr Val Gln Pro
                325                 330                 335
Gly Lys Leu Thr Ala Leu Met Gly Ala Ser Gly Ala Gly Lys Thr Thr
            340                 345                 350
Leu Leu Asp Val Leu Ala Ser Arg Lys Asn Ile Gly Val Ile Ser Gly
        355                 360                 365
Asn Ile Leu Val Asp Gly Ala Pro Pro Pro Gly Ser Phe Leu Arg Thr
    370                 375                 380
Val Ser Tyr Ala Glu Gln Leu Asp Ile His Glu Pro Met Gln Thr Val
385                 390                 395                 400
Arg Glu Ala Leu Arg Phe Ser Ala Asp Leu Arg Gln Pro Tyr Glu Thr
                405                 410                 415
Pro Gln Ser Glu Lys Tyr Glu Tyr Val Glu Gly Ile Ile Gln Leu Leu
            420                 425                 430
Glu Leu Glu Asp Leu Ala Asp Ala Ile Ile Gly Thr Pro Glu Thr Gly
        435                 440                 445
Leu Ser Val Glu Glu Arg Lys Arg Val Thr Ile Gly Val Glu Leu Ala
    450                 455                 460
Ala Lys Pro Glu Leu Leu Leu Phe Leu Glu Asn Leu Pro Val Ala Ser
465                 470                 475                 480
Ser Ser Pro Gln Arg Ala Asp Arg Ser Glu Leu Ser Ile
                485                 490
```

<210> 32063
<211> 228
<212> PRT
<213> A.fumigatus

```
<400> 32063
Leu Leu Asp Thr Tyr Thr Leu Lys Thr Ala Leu Ser Ser Leu Leu Pro
1               5                   10                  15
Ala Pro Ala Pro Ala Ser Phe Val Lys Arg Val Asn Ala Ser Phe Ser
            20                  25                  30
Lys Ile Glu Thr Leu Leu Lys Thr Leu Gln Val Gln Pro Ser Pro Pro
        35                  40                  45
Glu Ala Leu Val Gln Ala Tyr Leu Ile His Ile Ala Asp Arg Asn Asn
    50                  55                  60
Ala Asn Phe Arg Lys Ile Leu Asp Leu Lys Gly Ile Arg Ser Arg Gln
65                  70                  75                  80
Glu Gln Asn Gln Leu Val Glu Leu Phe Gln Val His Arg Thr Ser Asp
                85                  90                  95
Arg Tyr Ala Ser Asn Leu Gln Gln Ser Asn Pro Val Leu Ala Ala Met
            100                 105                 110
Gln Thr Thr Pro Ala Leu Ser Ser Ser Ser Val Ser Gln Gly Leu Gly
        115                 120                 125
```

```
Leu Gly Ala Ala Ala Ser Ile Ser Ala Ser Asn Leu Pro Thr Arg Phe
    130                 135                 140
Asp Pro Ser Met Leu Gly Ser Ala Leu Ile Ser Ala Ala Lys Asp Gly
145                 150                 155                 160
Val Asp Arg Phe Gly Thr Pro Ser Ser Gly Thr Asn Pro Ser Ser Ser
                165                 170                 175
Thr Gly Gly Val Ser Thr Pro Pro His Ser Gly Thr Thr Gly Gln Gly
            180                 185                 190
Gln Gly Gln Gly Gly Glu Met Ser Ser Asn Leu Asn Glu Asn Leu Lys
        195                 200                 205
Asn Ile Gly Lys Phe Phe Arg Arg Asp Leu Gly Gly Phe Gly Gly Arg
    210                 215                 220
Phe Gly Gly Ser
225
```

<210> 32064
<211> 105
<212> PRT
<213> A.fumigatus

```
<400> 32064
Leu Phe Asp Ala Phe Ser Ser Ala Ile Lys Thr Ile Thr Thr Val Ser
1               5                   10                  15
Leu Ala Leu Asn Tyr Pro Thr Leu Pro Ser Val Met His Ser Leu Ile
            20                  25                  30
Asn Gly Tyr Lys Lys Val Leu Ala Val Ala Ile Glu Thr Asp Tyr Ser
        35                  40                  45
Trp Pro Glu Ile Glu Glu Leu Lys Asp Arg Ile Ala Asn Pro Asp Ala
    50                  55                  60
Tyr Ala Ala Ala Ala Pro Val Ala Ala Ala Pro Ala Ala Gly Gly Ala
65                  70                  75                  80
Ala Pro Ala Ala Glu Glu Lys Lys Glu Glu Glu Ala Glu Glu Ser Asp
                85                  90                  95
Glu Asp Met Gly Phe Gly Leu Phe Asp
            100                 105
```

<210> 32065
<211> 66
<212> PRT
<213> A.fumigatus

```
<400> 32065
Gly Gln Tyr Arg Asp Ser Leu Asn Gln Ser His Pro Val Ser Arg His
1               5                   10                  15
Gln Trp Leu Thr Asn Met Ala Ser Ile Gln Asn Phe Leu Leu Arg Arg
            20                  25                  30
Ser Ser Asp Asp Leu Leu Tyr Ile Asp Tyr Leu Trp Gln Glu Ile Tyr
        35                  40                  45
Gln Pro Phe Ser Val Leu Gln Ser Arg Leu Leu Phe Phe Arg Leu Ile
    50                  55                  60
Ser Asp
65
```

<210> 32066
<211> 467
<212> PRT

<213> A.fumigatus

<400> 32066

```
Leu Gly Leu Leu Asn Ala Asp Leu Phe His Thr Val Trp Phe Asn Gly
1               5                  10                  15
Gly Pro Gly Cys Ser Ser Leu Ile Gly Leu Met Thr Gly Asn Gly Pro
            20                  25                  30
Val Leu Leu Asp Ser Asn Thr Thr His Val Ile Glu Asn Pro Gln Ser
        35                  40                  45
Trp Thr Lys Leu Gly His Val Leu Tyr Val Asp Gln Pro Ala Gly Thr
    50                  55                  60
Gly Phe Ser Thr Ala Ser Asn Pro Tyr Pro Val Arg Asp Asn Asp Arg
65                  70                  75                  80
Val Thr Ser Asp Phe Tyr Lys Trp Leu Gln Ser Phe Phe Ser His Phe
                85                  90                  95
Pro Asn Phe Arg Ser Lys Arg Val His Met Ile Gly Glu Ser Tyr Ala
            100                 105                 110
Gly Ile Tyr Ile Pro Tyr Phe Ala Tyr Ala Ile Ala Glu Asn Gln Asp
        115                 120                 125
Asn Tyr Pro Ile Asp Leu Arg Ser Ile Ser Leu Gly Asp Gly Thr Leu
    130                 135                 140
Gly Asn Pro Ala Ala Met Thr Ala Val Thr Val Gly Thr Phe Leu Lys
145                 150                 155                 160
Ser Arg Lys Ser Leu Leu Gln Ile Pro Gly Glu Ile Leu Ser Ala Phe
                165                 170                 175
Thr Gln Ala Asp Gln Thr Cys Gly Phe Thr Thr Val Leu Gln Gln Gly
            180                 185                 190
Ser Gln Phe Pro Pro Lys Gly Lys Phe Glu Ile Val Gly Asp Pro Glu
        195                 200                 205
Asn Leu Asn Tyr Lys His Arg His Arg Arg His Arg Phe Gln Gln Asp
    210                 215                 220
Gln Arg Arg Asn Leu Arg Asn Val Met Asn Glu Thr Cys Asn Asn His
225                 230                 235                 240
Pro Thr Thr Pro Glu Gln Val Ser Ser Ser Ile Leu Asn Ser Thr Cys
                245                 250                 255
Tyr Gly Ser Cys Ala Thr Tyr Ser Thr Ala Met Asn Tyr Leu Asn Ala
            260                 265                 270
Val Ser Ala Ala Gly Thr Gly Lys Arg Cys Phe Asp Val Tyr Asp Ile
        275                 280                 285
Thr Asn Asp Cys Thr Met Ile Asp Pro Leu Gly Leu Met Ala Ser Tyr
    290                 295                 300
Leu Ser Arg Gly Asp Val Gln Ala Ala Leu Asn Leu Ser Pro Ala Pro
305                 310                 315                 320
Ala Gly Leu Ala Phe Ala Pro Cys Asn Ser Thr Ile Leu Asp Thr Leu
                325                 330                 335
Leu Leu Ala Val Pro Pro Thr Pro Pro Ala Tyr Thr Ile Leu Pro Ser
            340                 345                 350
Leu Val Thr Glu His Asn Ile Ser Val His Val Tyr Ser Gly Asp Asn
        355                 360                 365
Asp Leu Leu Leu Asn His Leu Gly Thr Glu Leu Val Leu Gln Asn Met
    370                 375                 380
Thr Trp Gly Gly Ala Gln Gly Phe Ser Arg Lys Pro Ser Arg Ile Phe
385                 390                 395                 400
Tyr Val Asp Asp Ala Ala Pro Ser Leu His Gly Ala Asp Ala Cys Asn
                405                 410                 415
Val Ser Val Ser His Asp Ser Thr Gly Leu Ser Glu Gly Ala Gln Arg
```

```
            420                 425                 430
Cys Val Pro Ala Gly Ile Trp Ala Ser Glu Arg Gly Val Thr Tyr His
        435                 440                 445
Leu Phe Arg Gly Ala Gly Arg Leu His His Gly Ala Gly Arg Ile Ser
    450                 455                 460
Gly Gly Gln
465
```

<210> 32067
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32067

```
Pro Ser Ser Ala Cys Gly Val Thr Phe Ile Leu Phe Leu Leu Ala Leu
1               5                  10                  15
Gln Ser Arg Gln Tyr Asn Ser Gln Leu Ile Glu Leu Ser Val Asn Leu
            20                  25                  30
Cys Thr Leu Arg Thr Ser Leu Leu Ser Tyr Ser Ser Leu Ser Val His
        35                  40                  45
Arg Arg Gly Gln Asn Val Val Cys Gln His His His
    50                  55                  60
```

<210> 32068
<211> 68
<212> PRT
<213> A.fumigatus

<400> 32068

```
Leu Leu Asn Pro Ser Thr Thr Arg Ser Ala Glu Glu Ala Val Arg Asn
1               5                  10                  15
Lys Tyr Tyr Thr Leu Phe Pro Ser His Ser Tyr Ile Ile Leu Cys Thr
            20                  25                  30
Leu Pro Ile Lys Leu Asp Pro Arg Lys Ile Ile Cys Ser Gly Lys Gly
        35                  40                  45
Phe Ser Asn Tyr Ser Asn Ser Cys Phe Asn Arg Leu Ile Tyr Thr Phe
    50                  55                  60
Arg Val Ser Gln
65
```

<210> 32069
<211> 118
<212> PRT
<213> A.fumigatus

<400> 32069

```
Trp Arg Leu Cys Tyr Phe Ile Leu Leu Gly Thr Ser Ala Ile Lys Ile
1               5                  10                  15
Leu Ser Leu Phe Leu Asp Tyr Arg Ile Glu Thr Phe Phe Asn Phe Thr
            20                  25                  30
Ala Ala Cys Met Gly Tyr Arg Ile Ile Thr Met Leu Leu Val Ala His
        35                  40                  45
Ala Lys Leu Ser Pro Leu Ala Asn His Thr Leu Leu Ala Ser Thr Phe
    50                  55                  60
Ile Lys Leu Val Ala Met Asn Thr Cys Arg Ala Leu Ile Tyr Ile Phe
65                  70                  75                  80
```

```
Gln Val Pro Glu Arg Leu Gly Glu Leu Val Ser Ser Lys Leu Leu Leu
                85                  90                  95
His Cys Met Val Val Tyr Ser Val Met Val Leu Thr Asp Asn Ile Leu
            100                 105                 110
Thr Pro Ser Met Asp Ala
        115
```

<210> 32070
<211> 234
<212> PRT
<213> A.fumigatus

<400> 32070

```
Ser Ala Leu Ser Phe Leu Ser Pro Ser Val Arg His Ile Gly Ser Ala
1               5                   10                  15
Ser Asn Ser Gly His Ala Glu Leu Ala Gln Arg Asn Arg Lys His Tyr
            20                  25                  30
Lys Trp Tyr Tyr Ser Thr Ala Ser Ala Ser Asn Glu Met Asn Leu Pro
        35                  40                  45
Pro Gly Arg Leu His Glu Phe Leu Arg Gly Tyr Phe His Leu Lys Ser
    50                  55                  60
Gly Ser Cys Ala Arg Asn Cys Pro Arg Pro Leu Lys Thr Trp Thr Ala
65                  70                  75                  80
Asp Glu Leu Leu Gln Leu Pro Phe Tyr Tyr Ile Met Pro Leu Asp Ala
                85                  90                  95
Thr Met Pro Glu Ala Ile Ala Leu Asp Met Glu Asn Glu Pro Glu Asn
            100                 105                 110
Ala Gln Gln Leu Ser Gln Ala Trp Leu Pro Asp Ser Asp Leu Glu Val
        115                 120                 125
Tyr Val Ala Glu Tyr Gly Arg Thr Gly Phe Gln Gly Gly Leu Asn Trp
    130                 135                 140
Tyr Arg Val Arg Thr Ala Ala Asp Gly Arg Phe Thr Gln Asp Phe Asp
145                 150                 155                 160
Thr Phe Ala Gly Lys Lys Ile Glu Val Pro Cys Ala Phe Val Ser Gly
                165                 170                 175
Glu Met Asp Trp Gly Ile Tyr Gln Glu Pro Gly Ala Leu Glu Arg Met
            180                 185                 190
Val Asn Gly Glu Val Cys Ser Asp Phe Lys Phe Leu Arg Leu Ile Glu
        195                 200                 205
Gly Val Gly His Trp Ala Pro Gln Glu Ser Pro Glu Glu Val Ser Asn
    210                 215                 220
Ala Ile Leu Arg Leu Val Arg Ser Val Glu
225                 230
```

<210> 32071
<211> 198
<212> PRT
<213> A.fumigatus

<400> 32071

```
Ala Cys Thr Gln Leu Met Tyr Asn Arg Leu Ile Phe Ala Gly Gly Gly
1               5                   10                  15
Met Pro Thr Thr Thr Asn Arg Thr Lys Trp Pro Val Gly Gly Gly Ala
            20                  25                  30
Ile Ala Ile Gln Pro Gly Trp Phe Gln Gly His Gln Thr Ala Phe Ile
        35                  40                  45
```

```
Tyr Ile Asn Leu Gly Leu Gly Thr Ile Pro Pro Asn Met Ser His Pro
    50                  55                  60
Met Val Pro Pro Phe Gln Ile Thr Gly Pro Thr Asn Asp Pro Tyr Pro
65                  70                  75                  80
Gly Thr Ile Cys Leu Pro Gln Val Pro Leu Pro Ala Asn Thr Ser Val
                85                  90                  95
Lys Pro Gly Asp His Ala Thr Ile Gln Val Ile Glu Thr Ala Lys His
            100                 105                 110
Gly Ala Ala Leu Tyr Asn Val Arg Ser Pro Leu Phe Ala Arg Trp Leu
        115                 120                 125
Asn Leu Thr Met Met Gln Cys Val Asp Ile Glu Phe Ala Glu Pro Ser
    130                 135                 140
Glu Val Glu Glu Val Thr Arg Asp Asn Cys Phe Asn Ser Ser Ile Ile
145                 150                 155                 160
Ser Phe Gly Glu Val Phe Thr Thr Thr Ser Leu Thr Ser Ala Ala Ala
                165                 170                 175
Pro Lys Ser Ser Leu Met Ser Val Leu Pro Val Tyr Met Val Ala Leu
            180                 185                 190
Leu Ser Trp Ala Met Met
        195

<210> 32072
<211> 64
<212> PRT
<213> A.fumigatus

<400> 32072
Arg Thr Phe Leu Leu Gln Ile Tyr Ala Tyr Asp Lys Leu Ile Ser Pro
1               5                   10                  15
Lys Leu Tyr Trp Tyr Ile Val Tyr Asn Cys Ser Ala Ile Val His Glu
            20                  25                  30
Ala Ser His Thr Trp Lys Pro Ser Ser Ser Ala Leu Asp Lys Glu Gln
        35                  40                  45
Gly Cys Ser Ala Glu Ala Ile Gln Thr His Ala Arg Glu Ser Ser Leu
    50                  55                  60

<210> 32073
<211> 354
<212> PRT
<213> A.fumigatus

<400> 32073
Ser Ser Val Ser Ser Leu Pro Gly Ser Asn Ala Arg Gly Glu Pro Val
1               5                   10                  15
Lys Leu Val Ser Gln Thr Leu Pro Tyr Pro Tyr Ser Ala Glu Lys Pro
            20                  25                  30
Thr Pro His Arg Thr His Glu Gly Val Phe Ser Ser Leu Val Gln Val
        35                  40                  45
Ile Gln Asn Arg Leu Arg Gln Gly Gln Ser Pro Tyr Ile Asn Val Thr
    50                  55                  60
His Ala Val Pro Glu Gln Phe Ser Leu Thr Asn Leu Pro Thr Ser Pro
65                  70                  75                  80
Pro Gly Ser Pro Arg Cys Met Leu Pro Asn Asn Asp Tyr Phe Asn Ala
                85                  90                  95
Thr Val Phe Ser Ser Ala Ala Val Val Ser Ala Tyr His Asp Phe Arg
            100                 105                 110
```

```
Gly Pro Ile Gln Met Lys Ala Pro Gln His Phe Pro Met Pro Ile Val
        115                 120                 125
Pro Pro Gln Ser Val His Ile Ser Val Leu Glu Arg Tyr Ile Pro Pro
    130                 135                 140
Ser Ser Ala Gln Glu Tyr Asn Asp Leu Phe Ser Pro Ser Arg Pro Ser
145                 150                 155                 160
Phe Leu Val Asp Arg Leu Ser Glu Leu Ser Pro Asp Gly Gly Ser Leu
                165                 170                 175
Leu Phe Ile Tyr Pro Thr Arg Arg Gly Gly Ser Ala Phe Lys Ser Gln
            180                 185                 190
Tyr Leu Gly Pro Ile Leu Asp Pro Leu Leu Arg Gln Leu Val Val Val
        195                 200                 205
Asn Glu Leu Ser Ala Asp Ile Gly Arg Tyr Leu Gly Lys Leu Ser Ser
    210                 215                 220
Val Ser His Met Glu Asp Phe Asp Thr Leu Lys Asn Asn Leu Ser Met
225                 230                 235                 240
Leu Cys Arg Ala Leu Ser Ser Ser Ser Ser Gln Phe Ser Ile Val Asp
                245                 250                 255
Ala Arg Lys Gly Ser Ala Tyr Leu Asp Arg Asp Leu Trp Thr Glu Trp
            260                 265                 270
Tyr Ile His Gln Glu Lys Ala Arg Met Lys Glu Val Leu Ser Leu Tyr
        275                 280                 285
Cys Gln Asn Gly Arg Arg Phe Ser Thr His Lys Ala Thr Ser Ser Ser
    290                 295                 300
Ile Ala Asn Thr Tyr Ile Leu Ala Ala Asp Lys Glu Val Thr Ser Ala
305                 310                 315                 320
Met Leu Leu Ser Glu Ile Ile Asp Gly Ile Arg Arg Arg Pro Tyr Glu
                325                 330                 335
Ser Glu Pro Arg Asp Gly Ile Glu Leu Gly Val Phe Val Ile Arg Arg
            340                 345                 350
Ser Gln
```

<210> 32074
<211> 404
<212> PRT
<213> A.fumigatus

```
<400> 32074
Glu Tyr Ser Pro Phe Ser Phe Ala Ser Gly Ala Cys Gly Ser Leu Leu
1               5                   10                  15
Arg Lys Glu Lys Pro Ile Ser Ala Trp Thr Phe Cys Ser Met Asn Pro
            20                  25                  30
Cys Phe Ile Thr Ile Ser Val Thr Gly Ala Gln Trp Cys Ala His Thr
        35                  40                  45
Phe Ser Val Ser Tyr Val Gly Gly Cys Val Gly Leu Met Gly Ser Pro
    50                  55                  60
Arg Arg Leu Thr Arg Lys Tyr Lys Pro Ser Gly Ile Arg Ala Ser Ala
65                  70                  75                  80
Leu Gly Ser Leu Thr Ile Asn Ile Ile Cys Ser Thr Ile Tyr Glu Thr
                85                  90                  95
Leu Trp Asn Arg Leu Gln Arg Val Trp Ser Tyr Tyr Arg Asp Phe Gln
            100                 105                 110
Ala Asn Ala Glu Arg Gly Leu Lys Pro Pro Leu Ser Ser Ala Pro Cys
        115                 120                 125
Ser Pro Ala Pro Gly Arg Arg Ile Ile Ile Ile Arg Cys Asp Asn His
```

```
    130                 135                 140
Ile Thr Pro Pro Ser Leu Phe Val Ser Phe Asp Arg Val Val Pro Pro
145                 150                 155                 160
Ala Pro Thr Glu Leu Thr Val Gly Ser Lys Gly Asp Asp Phe Ser Glu
                165                 170                 175
Ser Gln Ala Ala Pro Lys Arg Arg Trp Asn Leu Leu Lys Ala Met Phe
            180                 185                 190
Gly Ser Ser Ser Ser Ile Arg Asn Asn Asp Asp Ala Ser Pro Pro Ser
        195                 200                 205
Thr Ser Ser Glu Asp Ser Asp Ser Arg Ser His Asp Thr Met Asn Gly
    210                 215                 220
Thr Glu Lys Asn Ser Asp Asp His Leu Arg Pro Gln Asn Gly Thr Gly
225                 230                 235                 240
Glu Ser Ser Arg Pro Lys Thr Pro His Gln Pro Tyr Thr Phe Lys Phe
                245                 250                 255
Ser Leu Glu Trp Met Asp Arg Pro Gln Trp Pro Ser Lys Asn Lys Arg
            260                 265                 270
Leu Tyr Gly Pro Cys Leu Pro Val Gly Ala Gln Leu His Leu Gln Leu
        275                 280                 285
Arg Gly Tyr Leu Asp Arg Pro Val Asp Asp Ala Ser Glu Tyr Ala Ser
    290                 295                 300
Ala Ile Asp Phe Asp Glu Arg Glu Lys Thr Asp Cys Arg Leu Glu Asp
305                 310                 315                 320
Ala Ala Ser Asp Lys Glu Ile Gln Gly Pro Ala Gln Asp Ala Ala Asp
                325                 330                 335
Gly Gly Lys Thr Leu Gly Leu Arg Asn Thr Arg Cys Leu Ala Lys Asp
            340                 345                 350
Gly Val Val Ala Ser Lys Tyr Ala Gly Arg Ala Leu Ala Glu Trp Ala
        355                 360                 365
Gln Ile Val Thr Glu Cys Asp Ser Phe Phe Ala Arg Arg Arg Asp Glu
    370                 375                 380
Gly Val Pro Cys Asp Arg Met Val Glu Thr Pro Met Leu Gly Val Glu
385                 390                 395                 400
Gly Phe Arg Lys
```

Sequence Listing Page 12513 of 12513

<210> 32075
<211> 428
<212> PRT
<213> A.fumigatus

<400> 32075

```
Ala Thr His Glu Tyr Ser Arg Ala Ala Ser Phe Gln Pro Arg Gly Glu
1               5                   10                  15
Asp Ser Asp Ser Ser Gly Ser Asp Phe Leu Ile Glu Ser Ile His His
            20                  25                  30
Asn Ile Arg Asn Ile Phe Val Gln Asn Leu Leu Ser Gln Met Ala Phe
        35                  40                  45
Val Val Glu Arg Met Ser Met Arg His Ala Pro Ala Ser Leu Val Ala
    50                  55                  60
Phe Cys Gly Lys Ala Cys Ala Tyr Ala Phe Phe Phe Cys Pro Gly Val
65                  70                  75                  80
Ala Asp Ile Leu Val Arg Leu Trp Asn Thr Pro Ala Ser Ile Phe Arg
                85                  90                  95
Arg Ile Leu Ala Asp Ser Gly Val Glu Arg Cys Arg Asn Ile Arg Ala
            100                 105                 110
```

```
Phe Thr Gln Asp Leu Gly Leu Asn Phe Pro Ile Ala Leu Arg Thr Leu
        115                 120                 125
Cys Phe His Ser His Thr Pro Leu Val Arg Tyr Leu Arg Gln Lys Pro
    130                 135                 140
Asp Val Pro Leu Ser Thr Ala Gln Ile Gln Trp Gln Ser Pro Trp Val
145                 150                 155                 160
Ser Arg Trp Cys Gly Arg Asp Thr Asp Leu Phe Phe Val Phe Val Lys
                165                 170                 175
Tyr Ile His Ile Leu Tyr Ala Asp Ala Leu Pro Thr Asp Ile Glu Lys
            180                 185                 190
Pro Lys Arg Ile Leu Ala Pro Gly Leu Leu Pro Ile His Ala Gln Val
        195                 200                 205
Leu Val Val Met Glu Asp Thr Leu Tyr Lys Gln Ser Ser Pro Gln Met
    210                 215                 220
Pro Glu Ser Thr His Thr Ala Ala Ala Ile Thr Phe Asp Asp Phe Ile
225                 230                 235                 240
Glu Gly Ala Asp Ala Thr Val Ser Ala Leu Pro Leu Gly Ser Ala Asn
                245                 250                 255
Ser His Arg Ser Met Ala Glu Asn Arg Leu Ile Ile Leu Leu Arg Asp
            260                 265                 270
Phe Leu Ser Glu Ser Ser Leu Glu Pro Gln Arg Ala Arg Leu Leu Tyr
        275                 280                 285
Ala Glu Ser Phe Cys Asn Ile Met Lys Ala Ala Ala Gln Lys Thr Ser
    290                 295                 300
Leu Phe Asp His Asn Ala Cys Phe Leu Leu Cys Asp Phe Val Glu Glu
305                 310                 315                 320
Val Leu Pro Ile Leu Thr Arg Tyr Ser Gln Ala Val Asp Met Glu Leu
                325                 330                 335
Phe Asp Trp Lys Phe Trp Leu Ser Ala Cys Arg Gln Met Met Arg Ser
            340                 345                 350
His Asn Ser Leu Thr Glu Val Arg Val Phe Ser Phe Leu Phe Cys Val
        355                 360                 365
Trp Gly Met Trp Ile Thr Ser Glu Glu Arg Lys Ala Asp Leu Cys Leu
    370                 375                 380
Asp Phe Leu Leu Asp Glu Ser Leu Phe Tyr His Tyr Phe Ser His Trp
385                 390                 395                 400
Ser Pro Met Val Arg Ala Tyr Phe Gln Arg Leu Leu Cys Trp Arg Val
                405                 410                 415
Cys Arg Phe Asn Gly Glu Pro Ser Pro Leu Asp Ser
            420                 425
```

<210> 32076
<211> 231
<212> PRT
<213> A.fumigatus

<400> 32076

```
Asp Lys Thr Ser Lys Ser Ser Cys Glu Phe Thr Ser Gly Tyr Gly Val
1               5                   10                  15
Ala Tyr Lys Pro Asn Val Phe Asn Trp Ser Pro Ser His Pro Ala Gln
            20                  25                  30
Ser Pro Leu Phe Asp Ile Pro Gly Ile Lys Leu Thr Pro Gly Arg Ala
        35                  40                  45
Phe Thr Pro Thr Thr Val Thr Arg Leu Ala Asp Ala Asn Phe Val His
    50                  55                  60
Leu Glu Gln Glu Ile Pro Ala Asn Gly Ala Phe Arg Ile Phe Ile Phe
```

65 70 75 80
Ala Gly Lys Gln Ala Asn Thr Lys Lys Ala Ile Thr Asp Phe Gly Ala
85 90 95
Asn Leu Glu Lys Glu Arg Ser Phe Leu Ser Ser Tyr Arg Arg Ile Asp
100 105 110
Glu Ile Ser Phe Phe Glu Arg His Leu Pro His Ser Lys Leu Phe Ser
115 120 125
Ile Cys Leu Ile Tyr Ala Ala Gln Lys Asn Glu Val Asp Val Glu Ala
130 135 140
Ile Pro Gln Ile Leu Arg Asp Tyr His His His Ile Tyr Ala Asp Asp
145 150 155 160
Ile Pro Asp Val Arg Val Pro Leu Ala Lys Phe Ala Ala His Glu Lys
165 170 175
Leu Gly Phe Asp Pro Glu Lys Gly Gly Val Val Val Thr Arg Pro Asp
180 185 190
Ser His Val Ala Cys Thr Val Gln Leu Val Glu Gly Ser Gly Thr Val
195 200 205
Asp Ala Leu Asn Ala Tyr Phe Asn Ser Phe Ser Thr Lys Pro Leu Gly
210 215 220
Gln Asp Gln Gln Ser Arg Leu
225 230

<210> 32077
<211> 64
<212> PRT
<213> A.fumigatus

<400> 32077
Val Tyr Ser Arg Ser Ser Ser Gln Ala Arg Phe Leu Thr Met Asp Ala
1 5 10 15
Gln Gly Glu Trp Glu Ala Lys Gly Ile Asp Ser Ser Thr Pro Phe Thr
20 25 30
Gly Ile Asp Leu Ser Glu Gly Glu Trp Tyr Asp Tyr Asp Glu Lys Ala
35 40 45
Gly Glu Glu Val Ser Ile Lys Glu Ile Lys Trp Glu Val Gly Arg Gly
50 55 60

<210> 32078
<211> 78
<212> PRT
<213> A.fumigatus

<400> 32078
Asp Asp Thr Val Ser Ser Ser Asn Lys Phe Thr His Pro Ile Val Ile
1 5 10 15
Ile Leu Gly Pro Arg Gly Ile Val Ser Arg Cys Phe Leu Ser Ile Val
20 25 30
Ala Ile Val Ala Phe Arg Ser Ala Arg Gly Val Cys Arg Val Cys Arg
35 40 45
Val Ser Ala Ile Asp Asn Ser Leu Pro Ala Val Ser Asn Ala Ala Leu
50 55 60
Ile Pro Leu Ser Ser Gly Ala Leu Cys Phe Pro Pro Pro Gly
65 70 75

<210> 32079
<211> 90

<212> PRT
<213> A.fumigatus

<400> 32079
Asp Val Leu Cys Lys His Asn His Asn Cys Cys Gly Phe Ser Phe Leu
1 5 10 15
Asp Glu Ser Lys Asn Thr Asp Leu Ile Arg Trp Ser Asp Asp Gly Asn
20 25 30
Ser Phe Ile Val Leu Asp Glu Asp Glu Phe Ala Lys Thr Leu Ile Pro
35 40 45
Glu Leu Phe Lys His Asn Asn Tyr Ala Ser Phe Val Arg Gln Leu Asn
50 55 60
Met Tyr Gly Phe His Lys Lys Val Gly Leu Ser Asp Asn Ser Met Arg
65 70 75 80
Ala Ser Glu Arg Lys Asn Leu Pro Thr Gly
85 90

<210> 32080
<211> 87
<212> PRT
<213> A.fumigatus

<400> 32080
Ser Arg Ile Gly Arg Gln Ser Pro Lys Ala Leu Val Asn Asp Val Val
1 5 10 15
Ser Pro Thr Glu Asp Ala Gln Trp Asp Val Glu Ser Arg Ile Ser Glu
20 25 30
Pro Asp Thr Glu Ser Gly Thr Gly Glu Met Lys Leu Lys Met Lys Arg
35 40 45
Tyr Leu Glu Gly Phe Pro Phe Pro Tyr Tyr Leu Val Val Arg Asp Val
50 55 60
Arg Glu Leu Pro Ala Val Leu Ala Thr Ala Leu Lys Gln Trp Phe Ala
65 70 75 80
Glu Val Val Asp Val Ser Ser
85

<210> 32081
<211> 753
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (91)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32081
Ala Gln Val Leu Gly Gly Phe Phe Ser Val Pro Thr Asp Glu Ser Ser
1 5 10 15
Trp Ser Pro Arg Leu Lys Leu Tyr Phe His Ala Val Thr Gln Cys Gln
20 25 30
Ala Arg Thr Lys Asn Thr Pro Leu Gly Thr Val Met Val Thr Asp Leu
35 40 45
Ser Ser Phe Pro Phe Ala Leu Thr Val Ile Pro Val Pro Asp Gly Asp
50 55 60
Ile Leu Arg His Lys Glu Asp Phe Ile Val Asn Glu Asn Leu Lys Arg

```
65                  70                  75                  80
Phe Ser Cys Ala Gly Arg Ala Gly Leu Lys Xaa Gln Pro Pro Ser Pro
                85                  90                  95
Ala Thr Val Ala Lys Phe Tyr Gln Leu Tyr Arg Thr Ser Glu Arg Val
            100                 105                 110
Pro Val Tyr Ser Ala Val Met Glu Leu Val Lys Gln Cys Gln Ile Ala
        115                 120                 125
Leu Ser Met Phe Gly Leu Leu Ala Pro Glu Tyr Val Asp Gly Leu Leu
    130                 135                 140
Cys Asp Val Thr Glu Thr Ala Ile Asn Asp Trp Trp Thr Glu Phe Gly
145                 150                 155                 160
Ile Asp Leu Tyr Asn Ile Glu Pro Ser Asp Gly Val Leu Gly Pro Thr
                165                 170                 175
Thr Val Ala Ala Leu Leu Gly Thr Phe Met Gly Ala Arg Asn Arg Leu
            180                 185                 190
His Ala Phe Gly Ala Pro Val Gly Lys Asp Ala Phe Asp Ile Arg Ser
        195                 200                 205
Leu Lys Arg Ala Ile Glu Ser Phe Gln Lys Ser Gln Lys Met Glu Arg
    210                 215                 220
Thr Arg Arg Leu Asp Arg Gln Thr Leu Asp Arg Leu His Arg Val Thr
225                 230                 235                 240
Ala Lys Ala Ala Asn Ala Glu Gly Trp Thr Asp Ala Val Lys Ser Thr
                245                 250                 255
Met Ala Glu Leu Ser Gly His Gly Gly Glu Met Val Met Gly Met Val
            260                 265                 270
Arg Gly Arg Glu Lys Gly Gly Ile Ala Asp Ile Glu Thr Leu Glu Leu
        275                 280                 285
Asp Asp Phe Ala Ser Leu Val Thr Gly Glu Arg Ala Lys Trp Leu Trp
    290                 295                 300
Arg Gly Lys Pro Arg Lys Ser Gly Leu Gly Asp Gly Phe Ala His Asp
305                 310                 315                 320
Gln Pro Ala Ala Asp Met Met Phe Asn Arg Asp Glu Gln Gly Asn Tyr
                325                 330                 335
Val Trp Thr Ser Arg Lys Arg His Ser Tyr Glu Asp Leu Ala Gly Asp
            340                 345                 350
Arg Ser Leu Gln Gly Ser Asp Arg Pro Trp Arg Gln Pro Asp Thr Gly
        355                 360                 365
Ala Ala Pro Asp Glu Lys Asp Gln Asn Leu Ser Arg Met Val Arg Arg
    370                 375                 380
Gly Val Ser Gly Lys Val Ser Asp Ala Arg Ile Gly Phe Gly Arg Phe
385                 390                 395                 400
Lys Glu Ala Val Gly Leu Pro Ser Leu Arg Ser Gln His Lys Ser Thr
                405                 410                 415
Lys Asp Gly Ala Glu Leu Met Gly Asp Ala Ala Tyr Met Pro Ala Ile
            420                 425                 430
Glu Ser Asp Ala Glu Met Pro Val Leu Lys Thr Gln Ala Asp Ala His
        435                 440                 445
Leu Thr Asp Gln Glu Ser Ile Ser Glu Pro Gln Asp Gln Ala Arg Phe
    450                 455                 460
His Ala Val Lys Ala Glu Gln Pro Ala Ser Thr Ser Gly Pro Thr Val
465                 470                 475                 480
Ser Glu Leu Glu Pro Pro Lys Ile Thr Val Asp Ser Pro Arg Asp Asn
                485                 490                 495
Glu Lys Thr Glu Ser Ala Arg Lys Thr Ser Thr Ser Gln Leu Glu Glu
            500                 505                 510
Asp Glu Ser Asp Leu Gly Arg Ser Arg Thr Arg Ser Thr Asp Ala Ser
```

```
        515                 520                 525
Val Ser Gln Asp Glu Leu Ser Arg Val Asp Leu Met Leu Leu Arg Arg
    530                 535                 540
Pro Gln Ser Phe Ile Glu Ser Ser Thr Thr Asp Asp Ser Glu Arg Arg
545                 550                 555                 560
Ser Asn Gly Trp Pro Arg His Leu Ser Phe Ser Ile Val Glu Asp Val
                565                 570                 575
Val Leu Gly Trp Glu Ser Leu Gly Gly Arg Glu Ala Leu Gln Pro Lys
            580                 585                 590
Pro Asp Ala Thr Leu Glu Gln Ala Val Ala Leu Glu Asp Thr Leu Ala
        595                 600                 605
Ser Asp Val Arg Ile Phe Ser Ser Lys Ile Glu Glu Leu Ser His His
    610                 615                 620
Thr Val Pro Trp Val Glu Lys Gln Val Asn Ser Val Asp Glu Leu Asn
625                 630                 635                 640
Arg Lys Leu Tyr Glu Ser Gln Glu Asn Ile Asn Ser Ile Tyr Leu Asp
                645                 650                 655
Gln Val Glu Lys Tyr Gln Gln Met Arg Glu Arg Ser Ser Glu Leu Leu
            660                 665                 670
Thr Glu Glu His Asn Tyr Leu Val Asp Thr Met Lys Arg Val Glu Met
        675                 680                 685
Met Gly Ala Lys Leu Asp Tyr Glu Leu Asp Ile Leu Glu Ser Lys Val
    690                 695                 700
Glu Asp Val Glu Ser Gly Leu Gly Glu Phe Glu Arg His Val Val Glu
705                 710                 715                 720
Leu Glu Thr Arg Met Lys Gly Leu Ile Lys Asn Glu Glu Glu Lys Gln
                725                 730                 735
Asn Asn Ser Trp Leu Ser Leu Leu Gly Arg Phe Leu Gly Leu Ser Ser
            740                 745                 750
Arg
```

<210> 32082
<211> 108
<212> PRT
<213> A.fumigatus

```
<400> 32082
Arg Leu Asp Glu Ile Val Asn Gly Ser Ala Asp Gly Ser Phe Pro Gly
1               5                   10                  15
Leu Ile Pro Leu Val Glu Ser Tyr Leu Asn Ser Val Asn Val Asp Val
            20                  25                  30
Glu Thr Arg Cys Ser Leu Ala Thr Tyr Leu Asp Leu Ile Arg Lys Arg
        35                  40                  45
Ala Asn Gly Thr Leu Trp Thr Gly Ala Arg Trp Ile Arg Glu Phe Val
    50                  55                  60
Ala Ser His Pro Ser Tyr Lys Gln Asp Ser Val Val Ser Glu Glu Ile
65                  70                  75                  80
Cys Tyr Asp Leu Val Lys Ala Val Glu Glu Met Thr Val Lys Glu Gly
                85                  90                  95
Arg Asp Gly Ser Val Gly Trp Gln Leu Leu Arg Gly
            100                 105
```

<210> 32083
<211> 211
<212> PRT

<213> A.fumigatus

<400> 32083

```
Trp Asn Ser Arg Gly Asn Val Asp Leu Arg Ser Asn Glu Gly Leu Ser
1               5                  10                  15
Pro Glu Pro Ala Ala Leu Cys His Ser Leu Ala Gln Val His Thr Ala
            20                  25                  30
Gln Ala Gln Lys Ser Ser Phe Arg Phe Tyr Thr Ser Thr Ser Asn Gln
        35                  40                  45
Phe His Lys Ser Thr Met Cys Trp Thr Leu Pro Asn Gln Ser Gln Arg
    50                  55                  60
Gln Ser Asp Ala Ser Thr Ser Thr Ala Cys Asn Leu Thr Glu Glu Val
65                  70                  75                  80
Asp Ala Ile Val Thr Val Thr Lys Gly Phe Leu Ser Ala Leu Glu Thr
                85                  90                  95
Lys Ser Arg Asp Asp Phe Asp Lys Tyr Cys Val Lys Ala Gly Gly Met
            100                 105                 110
Ala Leu Trp Pro Pro Pro Pro Ser Val Pro Arg Phe Cys Thr Ile Gly
        115                 120                 125
Ala Phe Val Glu His Ile Ser Lys Ile Lys Asp Asp Ile Asp Glu Arg
    130                 135                 140
Met Trp Asp Pro Glu Val Lys Val His Glu Ser Ala Asn Leu Ala Ala
145                 150                 155                 160
Val Trp Ala Pro Phe Arg Ala Lys Ile Asn Gly Val Val Asp His Val
                165                 170                 175
Gly Val Glu Leu Phe Val Leu His Lys Ile Asn Gly Gly Trp Lys Val
            180                 185                 190
Thr Gly Leu Ala Asp Ser Cys Arg Arg Pro Thr Asp Asp Glu Lys Ile
        195                 200                 205
Ser Leu Val
    210
```

<210> 32084
<211> 111
<212> PRT
<213> A.fumigatus

<400> 32084

```
Ile Arg Ala Gly Ala Phe Leu Thr His Cys Leu Leu Leu Gln Asp Asn
1               5                  10                  15
Val Gly Leu Thr Ala Asn Thr Ser Ser Leu Val Gly Gly Val Ile Gln
            20                  25                  30
Ile Met Phe Val Ile Gly Arg Ile Tyr Leu Asp Ile Phe Val His Lys
        35                  40                  45
Thr Gln Asn Ile Asn His Ile Ala Leu Gly Ser Leu Tyr Pro Thr Leu
    50                  55                  60
Tyr Ala Asp Arg Leu Gly Arg Leu Asn Pro Met Met Trp Gly Ser Phe
65                  70                  75                  80
Gly Leu Cys Ser Cys Phe Leu Met Leu Ala Ile Leu Ser Ser Phe Glu
                85                  90                  95
Arg Ile Phe Lys Ser Pro Phe Arg Ala Leu Gln Arg Phe Asn Val
            100                 105                 110
```

<210> 32085
<211> 65
<212> PRT

<213> A.fumigatus

<400> 32085
Ser Ser Asn Ser Asn Arg Gln Ser Ile Gly Val Ser Ala Asn Trp Leu
1 5 10 15
Trp Asn Phe Phe Val Ala Met Ile Thr Pro Ile Leu Leu Glu Lys Leu
20 25 30
Arg Trp Lys Thr Tyr Leu Ile Phe Met Cys Leu Asn Phe Ser Phe Ile
35 40 45
Pro Val Ser Gly Ala Asp Tyr Pro Ser Pro Leu Thr Leu Thr Val Met
50 55 60
Tyr
65

<210> 32086
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32086
Ile Glu Ala Ile Ala Asn Val Val Leu Val Phe Thr Glu Leu Val Gly
1 5 10 15
Ser Lys His Asp Ile Ser Glu Asp Pro Ile Val Thr Val Pro Ser Glu
20 25 30
Thr Ile Tyr Leu Gly Gly Ile Asp Leu Tyr Leu Thr Ser Lys Asp Ile
35 40 45
Leu Ala Glu Pro Phe Phe Glu Leu Ile Ser Thr Ser
50 55 60

<210> 32087
<211> 71
<212> PRT
<213> A.fumigatus

<400> 32087
Lys Asp Asp Asn Pro Leu Asp Leu Ser Glu Pro Phe Arg Glu Leu Cys
1 5 10 15
Glu Ala Cys Arg Lys Gly Asp Leu Lys Val Cys Gln Glu Lys Ile Thr
20 25 30
Glu Gly Val Asn Val Asn Ala Arg Asp Pro Tyr Asp Tyr Thr Pro Leu
35 40 45
Ile Val Val Ser Lys Leu Ser Leu Glu Asp Arg Arg Asn Val Lys Pro
50 55 60
Gly Ser Leu Pro Leu Ser Leu
65 70

<210> 32088
<211> 321
<212> PRT
<213> A.fumigatus

<400> 32088
Ser Ser Arg Thr Asn Thr Arg Phe His Cys Arg Cys Leu Tyr Asn Ala
1 5 10 15
Leu Asn Asp Arg Ile Arg Asn Leu Leu Leu Glu Tyr Asp Tyr Ser Lys
20 25 30

```
Ser Thr Asp Pro Leu Gln Pro Leu Ala Ala His Val Ser Ser Leu Leu
        35                  40                  45
Thr Arg Asp Gln Pro Gly Thr Ser Asp Ile Val Val Thr Ala Gly Asp
    50                  55                  60
Glu Ser Leu Tyr Leu His Lys Phe Ile Leu Ala Ala Arg Ser Pro Tyr
65                  70                  75                  80
Phe Arg Gly Lys Leu Val Ala Asp Pro Lys Ser Thr Thr Trp Lys Leu
                85                  90                  95
Pro Ser Thr Ile Pro Pro Gln Ala Phe Gly Thr Ala Ile Lys Tyr Leu
            100                 105                 110
Tyr Phe Gly Glu Ala Pro Arg Asp Leu Arg Ser Gly Pro Gly Thr Gly
        115                 120                 125
Phe Thr Glu Ser Glu Val Phe Ala Gly Ile Asp Arg Ile Ser Lys His
    130                 135                 140
Leu Glu Ile Pro Ser Leu Leu Asp Ser Ile Leu Asp Ser Gly Asp Arg
145                 150                 155                 160
Arg Leu Ala Arg Gln Arg Arg Ser Met Glu Leu Ser Arg Gly Arg Asp
                165                 170                 175
Gln Leu Glu Glu Trp Phe Arg Lys Asn Val Leu Gly Ser Lys Ile Glu
            180                 185                 190
Val Asn Ser Ser Lys Val Asp Gly Phe Arg Trp Asp Arg His Asn Gly
        195                 200                 205
Ile Phe Ala Asp Val Val Leu Arg Ala Asp Glu Leu Arg Glu Asp Glu
    210                 215                 220
Asp Asp Ile Cys Asp Gly Phe Asn Leu Asn Gly Lys Gln Gln Asp Arg
225                 230                 235                 240
Lys Ser Val Leu Phe Pro Cys His Arg Ala Met Leu Leu Arg Ser Glu
                245                 250                 255
Phe Phe Gln Ala Met Phe Ser Ser Thr Phe Arg Glu Ala His Leu Lys
            260                 265                 270
Glu His Leu Asn Val Ile Pro Val Asp Cys Ser Pro Glu Val Leu Glu
        275                 280                 285
Ile Val Leu Met Phe Leu Tyr Thr Glu Arg Ala Asp Phe Pro Leu Asp
    290                 295                 300
Ile Ala Val Asp Val Leu Phe Ala Ala Asp Met Leu Phe Ile Gln Lys
305                 310                 315                 320
Leu
```

<210> 32089
<211> 210
<212> PRT
<213> A.fumigatus

```
<400> 32089
Thr Lys Ala Pro Val Val Ile Ser Thr Leu Gly Ser Gly Glu Met Ser
1               5                   10                  15
His Ala Glu Ala Ala Met Thr Arg Gly Thr Asn Glu Glu Tyr Asp Ile
            20                  25                  30
Asp Ile Tyr Ala Asn Ile Arg Ala Ala Trp Leu Thr Arg Val Gln Arg
        35                  40                  45
Leu Glu Glu Phe Ala Ala Arg Tyr Leu Ala Tyr Arg Leu Glu Ala His
    50                  55                  60
Ile Asp Ser Pro Glu Phe Ala Glu Leu Ile Gln Glu Ser Ala Ala Arg
65                  70                  75                  80
Ile Lys Ala Ser Gln Glu Thr Asp Ser Ile Glu Leu Leu Asp Asp Ile
```

```
                85                  90                  95
Arg Phe Tyr Leu Gly Glu Arg Phe Arg Leu Arg Phe Asp Asp Ala Gly
            100                 105                 110
Leu Glu Glu Met Met Glu Glu Glu Gln Arg Gln Gln Leu Ala Asp Ser
        115                 120                 125
Ser Gly Val Asp Lys Asp Leu Val Glu Ile Thr Asp Lys Val Asp Thr
    130                 135                 140
Met Gly Ile Gln Ser Gln Thr Leu Pro Ile Gly Ala Glu Ala Glu Val
145                 150                 155                 160
Thr Pro Gly Glu Met Ile Arg Glu Gln Gly Pro Ile Ile Arg Thr Leu
                165                 170                 175
Asp Gly Glu Ile Ala Gly Asp Glu Phe Ser Lys Asp Ala Ile Asn Tyr
            180                 185                 190
Gln Ile Leu Met Glu Lys Leu Asp Leu Leu Leu Lys Glu Leu Asn Leu
        195                 200                 205
Glu Ala
    210
```

<210> 32090
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32090

```
Ala Gln Thr Asn Ser Asn Tyr Pro Ser His Pro Pro Thr Arg Ala Ala
1               5                   10                  15
Val Ile Arg Arg Glu Gln Thr Ile Met Leu Ser Val Leu Lys Ala Val
            20                  25                  30
Leu Ile His Glu Lys Val Thr Val Glu His Glu Leu Glu Asp Asn Ala
        35                  40                  45
Ala Cys Ser Leu Ala Gln Ser Met Cys Leu Asn Ser Ser Lys
    50                  55                  60
```

<210> 32091
<211> 108
<212> PRT
<213> A.fumigatus

<400> 32091

```
Ile Ser Cys Gln Phe Phe Phe Gly Val Phe Ala Tyr Gln Ser Glu Lys
1               5                   10                  15
Met Ile Phe Trp Arg Gln Trp Leu Gly Leu Lys Ser Val Tyr Gly Tyr
            20                  25                  30
Trp Ser Ala Pro Thr Thr Asn Arg Phe Leu Gly Val Lys Glu Ala Ser
        35                  40                  45
Gln Ala Leu Ile Gly Leu Phe Pro Ser His Thr Val Met Ile Phe Ser
    50                  55                  60
Pro Ser Leu Ile Asp Thr Leu Val Thr Ser Ile Lys Gly Ala Gly Met
65                  70                  75                  80
Glu Gly Leu Ile Gly Ala Ile Phe Tyr Glu Pro Asn Arg Ser Phe Glu
                85                  90                  95
Leu Ser Thr Leu Ala Glu Ala Glu His Gly Leu Phe
            100                 105
```

<210> 32092
<211> 101

<212> PRT
<213> A.fumigatus

<400> 32092
Arg Leu Pro Arg Gln Ser Lys Tyr Trp Leu Ser Pro Gly Ile Ile Ser
1 5 10 15
Tyr Ala Asn Gln Phe Leu Arg Phe Asp Leu Phe Val Lys Tyr Gln Thr
20 25 30
Lys Ile His Lys Glu Asp Val Ser Lys Trp Lys Gln Lys Asp Phe Lys
35 40 45
Arg Phe Leu Cys Ser Gly Ile Lys Arg Ser Pro Ala Asp Ala Lys Ser
50 55 60
Ala Gln Arg Lys Leu Gly Ser Trp His Gln Cys Tyr Arg Leu Asp Gly
65 70 75 80
Lys Leu Ile Ala Val Ala Val Leu Asp Leu Met Pro Ser Gly Val Ser
85 90 95
Ser Val Tyr Ile Leu
100

<210> 32093
<211> 121
<212> PRT
<213> A.fumigatus

<400> 32093
Glu Arg Asn Ala Asn Arg Ile Arg Asp Pro Glu Ser Tyr Thr Trp Asp
1 5 10 15
Pro Leu Asp Gly Glu Leu Thr Met Lys Leu Asn Glu Arg Arg Tyr Val
20 25 30
Ser Leu Ser Arg Asp Arg Arg Leu Ala Ala Gln Gly Gln Pro Glu Ser
35 40 45
Thr Glu Leu Asp Ser Ala Glu Glu Glu Ile Asn Asp Glu Glu Met Ser
50 55 60
Leu Phe Asp Leu His Met Pro Gly Val Met Thr Leu Asp Glu Val Lys
65 70 75 80
Thr Leu Asp Leu Asp His Ser Leu Leu Leu Val Gln Gly Ser Leu Ile
85 90 95
His Met Met Val Arg Arg Ser Tyr Cys Arg Cys Ile Gln Ala Gly Leu
100 105 110
Leu Thr Trp Leu Asp Ser Arg Ile Leu
115 120

<210> 32094
<211> 281
<212> PRT
<213> A.fumigatus

<400> 32094
Arg Pro Pro His Ser Leu Pro Gln Ser Pro Ser Phe Arg Ile His Arg
1 5 10 15
Ala Ser Arg Ser Ser Ser Ser Ser Arg Pro Ala Leu Ser Leu Asp Leu
20 25 30
Ser Asn Leu Pro Ala Leu Ser Gln Pro Thr Pro Pro Ser Asn Thr Leu
35 40 45
Leu Ile Thr Asp Leu His Asp Leu Tyr Leu Phe Gln Pro Ala Ser Leu
50 55 60

```
Ala Ser Ile Arg Ser Gln Ile Glu Ser Ile Ala Pro Leu Asn Ser Phe
65                  70                  75                  80
Ser Pro Leu Pro Ser Leu Arg Arg Ile Val Cys Ser Phe His Ser Glu
                85                  90                  95
Asp Asp Ala Leu Arg Val Arg Lys Leu Leu Asp Gly Gln Ser Leu Leu
            100                 105                 110
Asn Arg Asn Val Cys Thr Lys Ile Tyr Phe Gly Glu Pro Thr Pro Leu
        115                 120                 125
Leu Asp Glu Gly Arg Pro Lys Leu Leu Glu Ala Pro His Leu Asp Lys
    130                 135                 140
Leu Phe Phe Ile Ser Pro Pro Pro Ser Pro Pro His Gly Trp Val Met
145                 150                 155                 160
Arg Thr Glu Asp Pro Pro Asn Lys Glu Val His Ala Ser Asp Leu Ala
                165                 170                 175
Gln Ala Leu Ala Gln Leu Lys Thr Glu Gln Ser Ala Pro Val Ser Gly
            180                 185                 190
Pro Val Asp Pro Gly Thr Pro Met Ser Met Ser Asp Glu Lys Arg Thr
        195                 200                 205
Gly Ser Trp Pro Ile Ala Met Ser Gly Gln Arg Ser Arg Ser Ser Thr
    210                 215                 220
Leu Ile Tyr Asn Pro Glu Asp His Gly Gly Ser Pro Gly Leu Pro Ala
225                 230                 235                 240
Val Met Val Glu Asp Thr Thr Val Asp Ser Asp Asp Glu Asp Ile Glu
                245                 250                 255
Met Met Ser Pro Ile Asp Met Ser Val Arg Lys Leu Pro Pro Lys Thr
            260                 265                 270
Ala Arg Pro Pro Val Glu Leu Met His
        275                 280
```

<210> 32095
<211> 147
<212> PRT
<213> A.fumigatus

<400> 32095

```
Thr Pro Ser Pro Arg Ser Pro Pro Cys Gly Ala Ser Ser Ala Pro Phe
1               5                   10                  15
Thr Gln Lys Thr Thr Pro Ser Ala Ser Ala Asn Ser Ser Thr Ala Asn
            20                  25                  30
Pro Ser Ser Thr Ala Thr Ser Ala Gln Arg Ser Thr Ser Ala Asn Pro
        35                  40                  45
Pro Arg Ser Ser Thr Arg Val Ala Pro Asn Ser Ser Arg Pro Pro Thr
    50                  55                  60
Ser Thr Ser Ser Ser Ser Ser Val Arg Pro Arg Ala Arg His Thr Ala
65                  70                  75                  80
Gly Ser Cys Ala Pro Arg Ile Pro Pro Thr Arg Arg Ser Thr Pro Val
                85                  90                  95
Ile Ser Pro Arg Arg Leu Arg Ser Ser Arg Arg Asn Asn Leu Leu Arg
            100                 105                 110
Ser Gln Ala Pro Leu Thr Pro Gly Arg Pro Cys Arg Cys Leu Thr Arg
        115                 120                 125
Ser Gly Arg Gly Ala Gly Pro Ser Pro Cys Gln Gly Ser Ala Val Gly
    130                 135                 140
Val Val Arg
145
```

<210> 32096
<211> 173
<212> PRT
<213> A.fumigatus

<400> 32096
Lys Thr Thr Thr Leu Pro Ser Ser Ile Ala Leu Ile Pro His Pro Pro
1 5 10 15
Cys Leu Pro Leu Leu Leu Phe Ile Ala Pro Ser Ser Leu Thr Arg Pro
20 25 30
Leu Gln Ser Ser Cys Ser Leu Thr Ala Asn Ser Ser Leu Lys His Ala
35 40 45
Thr Asn Asn Arg Pro Pro Arg Pro Leu Pro Leu Ser Thr Gly Leu Pro
50 55 60
Arg Leu His Pro Leu Pro Asp Arg Val His Arg Pro Pro Lys Leu Leu
65 70 75 80
Leu Pro Ala Pro Leu Leu Ala Ala His Arg Leu Leu Leu Ser Leu Arg
85 90 95
Arg Arg Arg Pro Pro Arg Pro Gln Thr Pro Arg Arg Pro Ile Pro Pro
100 105 110
Gln Pro Gln Arg Leu His Lys Asp Leu Leu Arg Arg Thr His Pro Ala
115 120 125
Pro Arg Arg Gly Ser Pro Gln Thr Pro Arg Gly Pro Pro Pro Arg Gln
130 135 140
Ala Leu Leu His Gln Ser Ala Pro Glu Pro Ala Thr Arg Leu Gly His
145 150 155 160
Ala His Arg Gly Ser Pro Gln Gln Gly Gly Pro Arg Gln
165 170

<210> 32097
<211> 131
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (122)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32097
Ser Val Ser Ser Lys Phe Leu Ile Gly Tyr Thr Met Ser Glu Lys Ala
1 5 10 15
Arg Leu Lys Cys Thr Val Tyr Val Gly Gly Leu Asp Gln Ala Val Thr
20 25 30
Val Gln Thr Leu Ala Glu Ala Phe Val Pro Phe Gly Glu Val Val Asp
35 40 45
Ile Thr Leu Pro Lys Pro Asp Val Pro Asn Ser Gly Asp Leu His Arg
50 55 60
Gly Phe Gly Tyr Val Glu Phe Asp Leu Pro Glu Asp Ala Ala Glu Ala
65 70 75 80
Ile Asp Asn Met Asp Gly Ser Glu Leu Tyr Gly Arg Thr Ile Lys Val
85 90 95
Ala Ala Gly Lys Arg Lys Lys Glu Ser Thr Glu Gly Leu Glu Ser Lys
100 105 110
Pro Val Ile Gly Ser Lys Val Asp His Xaa Asp Pro Ile Leu His Gly
115 120 125

Arg Cys Ser
130

<210> 32098
<211> 64
<212> PRT
<213> A.fumigatus

<400> 32098
Ile Ser Leu Pro Gly Pro Phe Ser Gly Met Asn Asp Val Thr Cys Ile
1 5 10 15
Arg Arg Cys Phe Gly Glu Val Pro Met Glu Leu Ser Val Thr Pro Pro
20 25 30
Val Pro Leu Gln Lys Asp Thr Trp Leu Leu Glu Pro Lys Ala Ser Asp
35 40 45
Arg Ser Gly Leu Asp His Leu Leu Thr Tyr Lys Leu Leu Ser Val Tyr
50 55 60

<210> 32099
<211> 325
<212> PRT
<213> A.fumigatus

<400> 32099
Glu Glu Ser Arg Val Pro Thr Gln Trp Gly Asp Phe Tyr Trp Trp Glu
1 5 10 15
Lys Arg Gly Ser Leu Gly Ala Ser Pro Arg Phe Phe Leu Trp Asp His
20 25 30
Leu Phe Leu Trp Glu His Ser Asn Lys Tyr Pro Val Cys Phe Gly Gly
35 40 45
Ala Val Arg Ala Leu Met Pro Thr Pro Phe Asp Lys Gly Ile Gln Val
50 55 60
Asp Pro Leu Asp Phe Glu Gly Val Ala Gln Gly Gly Gln Thr Ile Pro
65 70 75 80
Thr Asp Asp Glu Asp Ala Glu Gly Asn Gly His Gly Thr His Cys Phe
85 90 95
Gly Thr Ile Ala Gly Arg Lys Tyr Gly Val Ala Lys Lys Ala His Leu
100 105 110
Tyr Ala Val Lys Val Leu Arg Ser Ser Gly Ser Gly Thr Met Ser Asp
115 120 125
Val Val Ala Gly Val Glu Trp Ala Val Lys Ser His Leu Lys Lys Val
130 135 140
Lys Asp Ala Lys Asp Gly Lys Ile Lys Gly Phe Lys Gly Ser Val Ala
145 150 155 160
Asn Met Ser Leu Gly Gly Gly Lys Ser Arg Thr Leu Glu Ala Ala Val
165 170 175
Asn Ala Gly Val Glu Ala Gly Leu His Phe Ala Val Ala Ala Gly Asn
180 185 190
Asp Asn Ala Asp Ala Cys Asn Tyr Ser Pro Ala Ala Ala Glu Asn Pro
195 200 205
Ile Thr Val Gly Ala Ser Thr Leu Gln Asp Glu Arg Ala Tyr Phe Ser
210 215 220
Asn Tyr Gly Lys Cys Thr Asp Ile Phe Ala Pro Gly Leu Asn Ile Leu
225 230 235 240
Ser Thr Trp Ile Gly Ser Lys His Ala Val Asn Thr Ile Ser Gly Thr
245 250 255

```
Ser Met Ala Ser Pro His Ile Ala Gly Leu Leu Ala Tyr Phe Val Ser
            260                 265                 270
Leu Gln Pro Ser Lys Asp Ser Ala Phe Ala Val Asp Asp Leu Thr Pro
        275                 280                 285
Asn Lys Leu Lys Lys Asp Ile Ile Ala Ile Ala Thr Gln Gly Ala Leu
    290                 295                 300
Thr Asp Ile Pro Ser Asp Thr Pro Asn Val Ser Tyr His Phe Gly Asp
305                 310                 315                 320
Ser Ala Leu Leu Val
                325
```

<210> 32100
<211> 412
<212> PRT
<213> A.fumigatus

<400> 32100

```
Leu Cys Glu Ser Leu Leu Leu Ile Leu Gln Cys Met Arg Leu Thr Leu
1               5                   10                  15
Asn Val Ser Gln Tyr Ala Asn Gln Gln Ser Pro Asp Gly Pro Ala Met
            20                  25                  30
Thr Trp Ala Ile Phe Ala Ile Thr Ala Asn Asp Val Ser Pro Ser Gly
        35                  40                  45
Cys Ser Ala Tyr Thr Tyr His Gln Asp Ser Tyr Asp Pro Tyr Met Arg
    50                  55                  60
Ala Pro Phe Tyr Gln Leu Ser Glu Gln Met Ile Asp Asp Ala Gly Ile
65                  70                  75                  80
Asn Gly Gly Thr His Pro Ala Tyr Pro Phe Leu Thr Gly His Gly Gly
                85                  90                  95
Ala Asn Gln Val Val Leu Met Gly Tyr Leu Gly Leu Arg Leu Leu Pro
            100                 105                 110
Asp Asp Ala Ile His Ile Asp Pro Asn Leu Pro Pro Gln Val Ser Asn
        115                 120                 125
Leu Lys Tyr Arg Thr Phe Tyr Trp Arg Gly Trp Pro Ile Ser Ser Ser
    130                 135                 140
Ser Asn Arg Thr His Thr Thr Ile Ile Arg Ala Ala Asn Leu Ala Pro
145                 150                 155                 160
Leu Asp Thr Ala Asp Ser Arg Phe Ala Asn Ala Ser Ile Pro Val Leu
                165                 170                 175
Val Gly Asp Pro Ser Asn Ser Thr Ala Tyr Arg Leu Pro Val Thr Gly
            180                 185                 190
Pro Leu Val Val Pro Asn Arg Gln Ile Gly Phe Asn Asn Thr Ile Pro
        195                 200                 205
Gly Asn Met Val Gln Cys Arg Pro Val Tyr Ser Pro Asn Asp Tyr Ala
    210                 215                 220
Pro Gly Gln Phe Pro Ile Ala Ala Val Asp Gly Ala Thr Phe Thr Lys
225                 230                 235                 240
Trp Arg Pro Ser Thr Ala Asn Met Ser Ser Leu Thr Val Ala Leu Ala
                245                 250                 255
Asp Val Glu Ile Asn Ser Lys Val Ser Gly Phe His Phe Asn Trp Trp
            260                 265                 270
Gln Ala Pro Pro Val Asn Ala Thr Val Ile Phe His Asp Glu Met Leu
        275                 280                 285
Glu Asp Pro Val Ala Ala Met Ser Ser Ser His Gly Asn Ser Arg Tyr
    290                 295                 300
Arg Val Val Thr Thr Leu Thr Asn Ile Glu Gln Ser Gln Pro Tyr Asp
```

```
305                 310                 315                 320
Ala Gln Ser Thr Asp Asn Asn Glu Val Val Leu Asn Thr Gly Asn Thr
                325                 330                 335
Thr Asp Val Ser Leu Ser Gln Thr Val His Thr Ser Arg Tyr Ala Thr
            340                 345                 350
Leu Leu Ile Ser Gly Asn Gln Ala Gly Gly Glu Glu Gly Ala Thr Val
        355                 360                 365
Ala Glu Trp Ala Ile Leu Gly Glu Ser Lys Gly Ser Ser Ser Gly His
    370                 375                 380
Gly Asn Asn Lys Arg Arg Leu Asp Val Arg Ala Ala Ala Ala Leu Ser
385                 390                 395                 400
Ala Leu Asn Asp Arg Arg Tyr Arg Gln Phe Asn Ala
                405                 410
```

<210> 32101
<211> 286
<212> PRT
<213> A.fumigatus

<400> 32101

```
Arg Arg Glu Ser Val Val Leu Leu Lys Asn Asp Lys Asn Asp Ser Thr
1               5                   10                  15
Asn Ser Pro Ile Leu Pro Leu Asp Arg Glu Lys Thr Thr Leu Val Ile
            20                  25                  30
Gly Pro Asn Ala Asp Leu Ala Ala Tyr Cys Gly Gly Gly Ser Ala Ser
        35                  40                  45
Leu Leu Ala Tyr Tyr Thr Val Thr Pro Arg Gln Gly Ile Ala Asp Lys
    50                  55                  60
Cys Gly Ala Glu Gln Val Val Phe Ser Gln Gly Cys Tyr Gly His Lys
65                  70                  75                  80
Glu Leu Pro Leu Leu Gly Glu His Leu Arg Thr Ile Glu Thr Gly Gln
                85                  90                  95
Pro Gly Tyr Thr Phe Arg Val Tyr Thr Glu Pro Pro Pro Ala Ser Gly
            100                 105                 110
Ser Phe Lys Gly Ser Asp Ser Arg Thr Pro Val Asp Glu Leu His Met
        115                 120                 125
Thr Asn Ser Ser Ala Phe Leu Met Asp Tyr Ser Pro Pro Gln Ile Ser
    130                 135                 140
Gly Asp Thr Tyr Tyr Ala Thr Leu Glu Gly Thr Phe Glu Pro Pro Glu
145                 150                 155                 160
Ser Gly Val Tyr Glu Phe Gly Leu Thr Val Ala Gly Thr Gly Leu Leu
                165                 170                 175
Tyr Ile Asp Gly Val Leu Val Val Asp Asn Lys Thr Val Gln Arg Ala
            180                 185                 190
Gly Thr Ser Phe Phe Arg Asp Arg Asp Gly Gly Arg Thr Arg Arg Ala
        195                 200                 205
Leu Pro Arg Gly Gly Gln Glu Thr Ser Cys Leu Cys Arg Val Arg His
    210                 215                 220
Gly Ala Asp Val Glu Pro Ala Ala Pro Pro Arg Arg Gly Leu Val Trp
225                 230                 235                 240
Ala Gly Gly Pro Ser Ala Arg Trp Val Pro Glu Ala Gly Tyr Arg Tyr
                245                 250                 255
Ser Asp Pro Ala Gly Gly Ala Val Ser Arg Ala Gly Gly Pro Gly Arg
            260                 265                 270
Cys Leu Cys Gly Val Glu Arg Arg Leu Gly Glu Arg Gly Leu
        275                 280                 285
```

<210> 32102
<211> 158
<212> PRT
<213> A.fumigatus

<400> 32102
Arg Leu Pro Ala Arg Gly Cys Cys Thr Ser Thr Gly Cys Trp Leu Ser
1 5 10 15
Thr Thr Arg Arg Tyr Ser Ala Arg Ala Arg Pro Phe Phe Gly Ile Gly
20 25 30
Thr Val Glu Glu Arg Gly Glu Arg Tyr Leu Glu Ala Gly Lys Lys His
35 40 45
His Val Phe Val Glu Phe Gly Thr Ala Pro Thr Ser Asn Leu Gln His
50 55 60
His His Gly Val Val Ser Phe Gly Pro Gly Gly Leu Arg Leu Gly Gly
65 70 75 80
Cys Arg Lys Leu Asp Thr Asp Thr Ala Ile Gln Gln Ala Val Gln Ser
85 90 95
Ala Ala Gln Ala Asp Gln Val Val Val Cys Val Gly Leu Ser Gly Asp
100 105 110
Trp Glu Ser Glu Gly Phe Asp Arg Pro His Met Asp Leu Pro Pro Gly
115 120 125
Glu Asp Asp Leu Val Asn Ala Gly Ala Ala Val His Pro Asn Ala Gly
130 135 140
Asp Cys Arg Ala Glu Trp His Pro Cys Glu Asp Ala Val Gly
145 150 155

<210> 32103
<211> 152
<212> PRT
<213> A.fumigatus

<400> 32103
Arg Asp Arg Pro Pro Pro Ala Glu Gly Pro Cys Ala Ala Gly Gln Ser
1 5 10 15
Pro Arg Ser Pro Ser Arg Arg Ser Thr Pro His Arg Gln Arg Pro Gly
20 25 30
Pro Pro Ala Arg Leu Thr Ala Pro Pro Ala Gly Ser Leu Tyr Leu Tyr
35 40 45
Pro Ala Ser Gly Thr His Arg Ala Glu Gly Pro Pro Ala Gln Thr Arg
50 55 60
Pro Arg Arg Gly Gly Ala Ala Gly Ser Thr Ser Ala Pro Cys Arg Thr
65 70 75 80
Leu Gln Arg His Asp Val Ser Cys Pro Pro Arg Gly Asn Ala Arg Arg
85 90 95
Val Leu Pro Pro Ser Arg Ser Arg Lys Lys Asp Val Pro Ala Arg Cys
100 105 110
Thr Val Leu Leu Ser Thr Thr Ser Thr Pro Ser Met Tyr Ser Ser Pro
115 120 125
Val Pro Ala Thr Val Ser Pro Asn Ser Tyr Thr Pro Leu Ser Gly Gly
130 135 140
Ser Asn Val Pro Ser Ser Val Ala
145 150

<210> 32104

<211> 109
<212> PRT
<213> A.fumigatus

<400> 32104
Pro Thr Ala Ser Ser Gln Gly Cys His Ser Ala Arg Gln Ser Pro Ala
1 5 10 15
Leu Gly Trp Thr Ala Ala Pro Ala Leu Thr Arg Ser Ser Ser Pro Gly
20 25 30
Gly Arg Ser Met Cys Gly Arg Ser Lys Pro Ser Leu Ser Gln Ser Pro
35 40 45
Leu Asn Pro Thr Gln Thr Thr Thr Trp Ser Ala Cys Ala Ala Asp Cys
50 55 60
Thr Ala Cys Trp Ile Ala Val Ser Val Ser Ser Phe Arg His Pro Pro
65 70 75 80
Ser Arg Arg Pro Pro Gly Pro Asn Glu Thr Thr Pro Trp Trp Cys Cys
85 90 95
Arg Phe Asp Val Gly Ala Val Pro Asn Ser Thr Lys Thr
100 105

<210> 32105
<211> 177
<212> PRT
<213> A.fumigatus

<400> 32105
Gln Val Cys Leu Gly Ala Leu Lys Gly Lys Leu Gln Ala Leu Lys Phe
1 5 10 15
Leu Ser Asp Ser Asp Ser Leu Tyr Asp Thr Thr Pro Leu Val Asp Met
20 25 30
Gly Val Asp Ser Leu Val Ala Val Glu Val Arg Ser Trp Phe Leu Lys
35 40 45
Glu Leu Thr Val Asp Val Pro Leu Met Lys Ile Leu Gly Gly Ala Ser
50 55 60
Ile Thr Asp Leu Val Glu Val Val Val Gln Lys Val Pro Arg Glu Leu
65 70 75 80
Leu Ser Arg Leu Asp Pro Glu Gly Arg Arg Gln Asp Ser Asn Gly Asp
85 90 95
Val Pro Ala Thr Val Gly Asp Asn Asp Ser Val Glu Thr Val Gly Ser
100 105 110
Lys Met Asn Gly Ile Asn Ser Ala His Glu Asn Gly Ser Ser Gly Val
115 120 125
Asn Gly Ile Ser Gly Thr Tyr Thr Pro Asp Met Asp Ser Thr Thr Asp
130 135 140
Leu Asn Gly Thr Asn Gly Ala Ala Val Ile Lys Glu Met Leu Gly His
145 150 155 160
Lys Ala Ile Lys Gly Val Val Pro Ile Leu Leu Asn Ala Gln Glu Val
165 170 175
Ala

<210> 32106
<211> 403
<212> PRT
<213> A.fumigatus

<400> 32106

```
Thr Glu Gly Phe His Tyr Gln Ile Leu Thr Ala Lys Ile Ser Ala Asn
1               5                  10                  15
Gln Asn Met Pro Met Ile Leu Gln Lys Lys Cys Ile Phe His Leu Val
            20                  25                  30
Tyr Arg Val Gln His Asn Thr Thr Thr Trp Asn Thr Ser Lys Gly Ala
        35                  40                  45
Ser Pro Pro Ser Gly Lys Gly Ser Glu Gly Val Pro Trp Arg Trp Ile
    50                  55                  60
Lys Met Leu His Leu Arg Ile Arg Pro Leu Pro Arg Leu Gln Pro Ala
65                  70                  75                  80
Ser Ser Ile Pro Thr Gln Ser Ala Pro Pro Ser Asp Phe His Asn Glu
                85                  90                  95
Asp Asn Ser Asn Asp Asp Asp Ser Ala Glu Asp Leu Phe Ser Ala Phe
            100                 105                 110
Leu Pro His Leu Phe Pro Asp Asp Ala Pro Ser Phe His Gly Asp Pro
        115                 120                 125
Gly Gln Arg Leu Leu Tyr Thr Ser Pro Arg Tyr Gly Asp Leu Glu Ile
    130                 135                 140
Met Val Pro Ser Tyr Pro Ser Gln Ser Glu Arg Arg Ser Glu Glu Ile
145                 150                 155                 160
Ala Ala Gly Leu Pro Ser Glu Asp Gly Ser Val Asn Ala Val Asp Glu
                165                 170                 175
Gly Arg Lys Leu Phe Ala His Phe Leu Trp Ser Ala Ala Met Val Val
            180                 185                 190
Ala Glu Gly Val Glu Lys Ala Asp Thr Leu Ala Thr Arg Gly Glu Leu
        195                 200                 205
Asp Ala Asp Thr Ala Met Trp Met Val Arg Gly Glu Arg Val Leu Glu
    210                 215                 220
Leu Gly Ala Gly Thr Ala Leu Pro Ser Ile Ile Cys Ala Arg Ala His
225                 230                 235                 240
Ala Ala Ala Val Thr Ile Thr Asp His Pro Ser Ser Pro Ala Leu Thr
                245                 250                 255
Gly Ala Ile Asp Phe Asn Ile Arg Arg Asn Leu Ala Ala Thr Glu Thr
            260                 265                 270
Glu Val Met Ser Gln Pro His Glu Trp Gly Met Leu Glu Pro Asp Pro
        275                 280                 285
Trp Ala Val Ala His Arg Gly Ala Phe Thr Arg Ile Ile Ala Ala Asp
    290                 295                 300
Cys Tyr Trp Val Arg Ser Gln His Glu Asn Leu Val Arg Ser Met Asn
305                 310                 315                 320
Trp Phe Leu Ala Pro Gly Gly Lys Ile Trp Val Val Ala Gly Phe His
                325                 330                 335
Thr Gly Arg Ala Ile Val Ala Trp Phe Phe Glu Thr Ala Met Gln Asn
            340                 345                 350
Gly Leu Glu Ile Glu Arg Ile Tyr Glu Arg Asp Leu Ile Ala Thr Ser
        355                 360                 365
Glu Asp Gly Gly Glu Val Arg Arg Glu Trp Met Pro Glu Arg Glu Gly
    370                 375                 380
Glu Gly Pro Glu Asn Arg Arg Arg Trp Cys Val Val Ala Leu Leu Gln
385                 390                 395                 400
Arg Arg Glu
```

<210> 32107
<211> 67

<212> PRT
<213> A.fumigatus

<400> 32107
Arg Val Leu Phe Gln Ser Phe Ser Met His Arg Arg Leu Pro Lys Met
1 5 10 15
Lys Asp Phe Ile Leu Met Phe Asp Asn Ile Ser Ser Leu Asp Val Leu
20 25 30
Ile Tyr Arg Leu Leu Lys Ile Ile Lys Phe Leu Phe Leu Gln Val Ile
35 40 45
Ile Ser Leu Leu Leu Ser Asn Leu Arg Leu Arg Ile Gly Pro Leu Pro
50 55 60
Phe Ile Gln
65

<210> 32108
<211> 69
<212> PRT
<213> A.fumigatus

<400> 32108
Leu His Pro Ile Ala Asp Leu Pro Gly Arg Gly Gln Tyr Ala Lys Lys
1 5 10 15
Arg Lys Thr Asp Met Leu Ser Glu Asp Glu Glu Asp Glu Glu Thr Arg
20 25 30
Ala Ala Ser Ala Leu Arg Ala Lys Arg Ala Lys Val Leu Glu Glu Lys
35 40 45
Leu Lys Arg Glu Arg Val Arg Asn Arg Ala Leu Val Gly Val Thr Ala
50 55 60
Val Phe Ala Leu Ala
65

<210> 32109
<211> 278
<212> PRT
<213> A.fumigatus

<400> 32109
Leu Leu Ala Gly Thr Ala Glu Leu Phe Gly Thr Glu Leu Ala Ala Ser
1 5 10 15
Gln Thr Tyr Thr Phe Ser Gly Thr Lys Ala Ala Ile Tyr Thr Trp His
20 25 30
Gly Cys Thr Leu Glu Val Ser Ala Gly Asp Thr Ile Ser Thr Ile Asp
35 40 45
Gly Leu Gly Ser Gly Gly Leu Asn Gly Glu Gly Ala Arg Gly Tyr Gly
50 55 60
Ala Gly Gly Cys Gln Ser Glu Tyr Thr Ala Glu Glu Thr Pro Met Val
65 70 75 80
Glu Tyr Ala Asn Val His Phe Ala Leu Glu Ala Met Arg Gln Glu Ala
85 90 95
Lys Ala Thr Gly Lys Asp Gly Pro Arg Val Leu Ile Leu Gly Pro Glu
100 105 110
Asn Ala Gly Lys Thr Ser Val Ala Lys Ile Leu Thr Ala Tyr Ala Thr
115 120 125
Lys Val Gly Arg Gln Pro Ile Val Val Asn Leu Asp Pro Ala Glu Gly
130 135 140

```
Met Leu Ser Val Pro Gly Thr Leu Thr Ala Thr Ala Phe Arg Thr Met
145                 150                 155                 160
Met Asn Val Glu Glu Gly Trp Gly Ser Ser Pro Met Ser Gly Pro Ser
                165                 170                 175
Ala Val Pro Val Lys Leu Pro Leu Val Tyr Phe Tyr Pro Leu Gln Asn
            180                 185                 190
Pro Leu Glu Ala Glu Gly Ala Val Tyr Arg Pro Ile Val Ser Arg Leu
        195                 200                 205
Ala Leu Ser Val Thr Gly Arg Met Ala Glu Asp Glu Asp Thr Arg Glu
    210                 215                 220
Thr Gly Ile Ile Val Asp Thr Pro Gly Ile Leu Ser Ala Gly Lys Pro
225                 230                 235                 240
Gly Ser Leu Glu Ile Ile Asn His Ile Val Thr Glu Phe Ala Ser Lys
                245                 250                 255
Ala Pro Phe Leu Ser Ala Ser Arg Arg Trp Ser Ser Pro Arg Gly Pro
            260                 265                 270
Lys Asp Pro Arg Lys Val
        275
```

<210> 32110
<211> 190
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (178),(179),(181),(186),(187),(188)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32110

```
Ala Asp Cys Gln Gly Ala Lys Met Ala Glu Gln Ala His Ser Gln Gly
1               5                   10                  15
Gln Gly Gln Ser Gln Gly Gln Gly Gln Gly Gln Gly Gln Gly Asp Val
            20                  25                  30
Glu Arg Gly Pro Ser Arg Ile Ser Gln Gln Ser Ser Arg Arg Ile Ser
        35                  40                  45
Arg Val Ser Tyr Lys Glu Asp Trp Ala Asn Leu Asp Glu Tyr Gly Lys
    50                  55                  60
Leu Val Lys Tyr Val Ser Thr Tyr Arg Glu Pro Gly Arg Glu Glu Gly
65                  70                  75                  80
Val Glu Glu Glu Lys Val Lys Arg Val Trp Tyr Ala Pro Trp Lys Lys
                85                  90                  95
Arg Lys Val Lys Val Lys His Val Asp Lys Glu Pro Gly Gln Phe Pro
            100                 105                 110
Pro Glu Trp Leu Ile Thr Asp Ile Arg Gln Gly Leu Pro Ser Ser Glu
        115                 120                 125
Val Pro Ile Arg Arg Arg Val Ser Gly Trp Asn Glu Leu Thr Ser Glu
    130                 135                 140
Lys Glu Asn Pro Ile Ala Lys Ile Leu Ser Tyr Phe Arg Gly Pro Ile
145                 150                 155                 160
Leu Tyr Gly Met Thr Tyr Asp Phe Asp Ser Ser Ser Phe Lys Asp Ser
                165                 170                 175
Asp Xaa Xaa Phe Xaa Thr Gly Pro Gly Xaa Xaa Xaa Val Asn
            180                 185                 190
```

<210> 32111

<211> 142
<212> PRT
<213> A.fumigatus

<400> 32111
Ala Ser Leu Leu His Leu Gly Ser Pro Gly Thr Asp His Cys Pro Gln
1 5 10 15
Ile Ile Ala Ala Ser Pro Tyr Ser Pro Pro Ile Tyr Pro Tyr Asn Asp
20 25 30
Ser Ile Pro Thr Val Tyr Tyr Glu Gln Phe Ala Lys Glu Ala Gly Cys
35 40 45
Gly Arg Ser Ala Ser Ala Arg Ser Lys His Lys Thr Thr Phe Asp Cys
50 55 60
Leu Val Ala Ala Pro Ser Glu Thr Leu Gln Thr Ala Ser Gly Ala Val
65 70 75 80
Ser Ala Ser Gly Ile Phe Gly Thr Phe Ala Phe Leu Pro Val Val Asp
85 90 95
Gly Asp Met Ile Arg Ala Arg Pro Ser Val Gln Leu Leu Thr Gly Gln
100 105 110
Ile Ser Gly Arg Arg Ile Leu Val Gly Val Gly Leu Phe Pro Ser Phe
115 120 125
Phe Arg Ser Ala Ser Val Cys Cys Glu Leu Val Asp Gln Leu
130 135 140

<210> 32112
<211> 253
<212> PRT
<213> A.fumigatus

<400> 32112
Asn Asn Ala Asn Asp Gly Val Pro Leu Ser Asn Pro Asn Ile Val Thr
1 5 10 15
Arg Ala Ala Phe Asp Asp Tyr Ile Ser Lys Thr Phe Pro Arg Leu Thr
20 25 30
Ala Lys His Val Thr Arg Leu Asn Val Leu Tyr Gly Thr Ala Asp Ser
35 40 45
Gln Ala Ser Asp Asp Gly Pro Arg Phe Asp Thr Leu Gly Thr Ser Gly
50 55 60
Pro Thr Ala Asn Asn Gln Ser Glu Ile Ala Thr Gly Leu Gln Gln Thr
65 70 75 80
Val Phe Asn Ile Tyr Gly Glu Thr Thr Phe Asp Cys Pro Ala Gln Trp
85 90 95
Leu Val Glu Ala Phe Gly Gly Thr Ser Arg Gln Ala Trp Lys Tyr Gln
100 105 110
Tyr Ser Val Thr Pro Ala Tyr His Gly Ala Asp Leu Asn Ser Tyr Phe
115 120 125
Asn Met Gly Ala Ser Trp Pro Asn Ala Gly Phe Asn His Ala Phe Gln
130 135 140
Lys Met Trp Gly Asn Phe Ile Met Asn Asp Ser Pro Val Ile Pro Leu
145 150 155 160
Gly Asp Ala Thr Ala Asn Asn Ser Gln Ala Val Val Pro Val Gly Arg
165 170 175
Asp Gly His Leu His Trp Pro Arg Phe Arg Pro Thr Ser Pro Trp Gln
180 185 190
Met Asp Leu Asn Thr Thr Gly Gly Ser Val Ser Lys Val Val Val Thr
195 200 205

```
Pro Asn Leu Thr Tyr Tyr Val Arg Glu Gly Asp Asp Ile Val Asn His
    210                 215                 220
Phe Arg Leu Ala Asn Ala Tyr Ser Trp Glu Gly Gly Arg Gly Leu Arg
225                 230                 235                 240
Cys Ala Phe Trp Arg Ala Val Ala Asp Arg Ile Ala Val
                245                 250
```

<210> 32113
<211> 87
<212> PRT
<213> A.fumigatus

<400> 32113

```
Leu Gly Ala Phe Gly Phe Leu Ser Ser Ala Glu Val His Lys Gln Gly
1               5                   10                  15
Ala Phe Asn Ala Gly Leu Leu Asp Gln Arg Phe Ala Leu Glu Trp Val
            20                  25                  30
Gln Arg Tyr Ile Ser Arg Phe Gly Gly Asp Pro Lys Arg Val Thr Ile
        35                  40                  45
Gly Gly Glu Ser Ala Gly Ala Gly Ala Val Met Leu Gln Ser Leu Ala
    50                  55                  60
Tyr Gly Gly Ala Glu Ser Asn Leu Phe Gln Asn Val Ser Leu Ile Thr
65                  70                  75                  80
Pro Ser Arg Leu Ala Trp Asn
                85
```

<210> 32114
<211> 245
<212> PRT
<213> A.fumigatus

<400> 32114

```
Gln Ile Phe Asn Ser Ser Cys Ile Ala His Arg Thr Thr Ile Leu Ala
1               5                   10                  15
Glu His Leu Ser Pro Gly Thr Ser Ser Thr Ala Ala Ser Ser Leu Ala
            20                  25                  30
Ser Ile Ile Leu Pro Lys Ile Thr His Asp Lys Pro Gln Lys Leu Thr
        35                  40                  45
Tyr Thr His Glu Arg Leu Phe Ile His Tyr Ile Ala Asp Ser Pro Ser
    50                  55                  60
Gly Ser Ser Asp Asp Ala Gly Arg Gln Glu Pro Asn Ser Tyr Ala Pro
65                  70                  75                  80
Leu Ser Tyr Ile Val Val Ala Thr Ala Glu Gln Gly Arg Arg Ile Pro
                85                  90                  95
Phe Ala Phe Leu Leu Glu Met Lys Arg Lys Phe Leu Ser Thr Tyr Pro
            100                 105                 110
Pro Ser Ser Thr Asp Phe Ser Ser Leu Pro Ala Tyr Gly Cys Ala Ala
        115                 120                 125
Phe Asn Ser Glu Leu Arg Ser Leu Leu Gln Thr Tyr Asn Thr Ala Pro
    130                 135                 140
Pro Ser Asp Ser Leu Ala Ser Ala Arg Arg Glu Ile Asp Ser Val Arg
145                 150                 155                 160
Asp Ile Met Thr Glu Asn Ile Glu Arg Val Leu Glu Arg Gly Glu Arg
                165                 170                 175
Ile Asp Leu Leu Val Asp Lys Thr Asp Arg Leu Gly Gly Ser Ala His
            180                 185                 190
```

```
Asp Phe Arg Val Arg Ser Arg Gly Leu Arg Arg Arg Met Trp Trp Lys
        195                 200                 205
Asn Ile Lys Leu Met Val Leu Leu Ala Val Val Val Val Phe Leu Ile
    210                 215                 220
Tyr Leu Phe Val Gly Met Gly Cys Gly Leu Pro Ala Trp Gly Lys Cys
225                 230                 235                 240
Val Gly His Ser Ala
                245
```

<210> 32115
<211> 141
<212> PRT
<213> A.fumigatus

<400> 32115

```
Leu Lys Leu His Cys Ala Pro Glu Asp Gly Phe Ile Ile Lys Ala Val
1               5                   10                  15
Ser Glu Thr Ala Ser Pro Glu Thr Ser Glu Thr Tyr Gly Leu His Ser
            20                  25                  30
Met Thr Val Thr Gly Pro Gly Ala Glu Gly Tyr Ser Thr Phe Phe Ala
        35                  40                  45
Ile Val Cys Ala Thr Ala Val Tyr Arg Asp Lys Thr Ser Val Arg Leu
    50                  55                  60
Arg Ala Ala Ser Glu Leu Arg Arg Leu Leu Ala Glu Ile Tyr His Thr
65                  70                  75                  80
Arg Val Thr Asn Gly Gln Tyr Ser Gln Leu Arg Gly Ala Val Ala Val
                85                  90                  95
Gly Gln Ser Val Gln Phe Phe Asn Trp Gly Glu Asp Gly Phe Leu Arg
            100                 105                 110
Val Phe Pro Trp Ala Thr His Pro Phe Asp Ile Lys Ser Asp His Tyr
        115                 120                 125
Ala Val Gln Gly Cys Leu Asp Leu Ile Val Gln Asn His
    130                 135                 140
```

<210> 32116
<211> 498
<212> PRT
<213> A.fumigatus

<400> 32116

```
Ser Asn Pro Val Leu Leu Leu Phe Leu Phe Phe Ile Leu Ile Tyr Phe
1               5                   10                  15
Leu Leu Gln Gln Tyr Phe Leu Leu Phe Leu Thr Ser Val Phe Ala Phe
            20                  25                  30
Val His Val Ser Ala Ile Met Ser Ser Gly Ile Pro Pro Trp Arg Thr
        35                  40                  45
Thr Ala Ser Ala Thr Ala Thr Thr Ala His Phe Pro Ala His Gly Met
    50                  55                  60
Cys Phe Leu Thr Leu Ile Ser Leu Tyr Leu Ile Ser Asn Cys Asp Leu
65                  70                  75                  80
Ala Thr Pro Ala Tyr Ile Pro Val Gln Ala Arg Arg Ser Phe Ala His
                85                  90                  95
Thr Ser Thr Thr Ala Met Val Pro Gln Pro Gln Pro Thr Thr Thr Gln
            100                 105                 110
Ala Pro Arg Lys Arg Val Glu Trp Pro Ala Pro Leu Arg Ser Tyr Val
        115                 120                 125
```

```
Gln Arg Ser Phe Ala Pro Glu Asn Gln Leu Pro Gly Val Asn Arg Gln
    130                 135                 140
Glu Met Glu Val Lys Leu Lys Gly Val Ile Thr Glu Ala Ala Glu Lys
145                 150                 155                 160
Gly Gln Leu Glu Lys Ile Asn Trp Asp Ala Leu Pro Leu Pro Gln Val
                165                 170                 175
Met Ile Gln Asn Glu Arg Asn Gln Ile Leu Thr Asn Pro Ala Val Ser
            180                 185                 190
Gly Trp Ser Asp Ser Leu Leu Thr Ala Ala Gln Lys Pro Asp Thr Val
        195                 200                 205
Thr Glu Asp Val Ser Arg Lys Arg Lys Ser Ala Glu Tyr Gly Asp Lys
    210                 215                 220
Asp Ser Cys Pro Pro Trp Arg Gln Thr Asn Asn His His Ala Phe Gly
225                 230                 235                 240
Asp Arg Thr Thr Tyr Pro Ser Ala Asp Lys Arg Gln Arg Val Asp His
                245                 250                 255
Lys Asn Pro Ser Lys Ser Lys Ala Asn Leu Glu Met Arg Arg Lys Arg
            260                 265                 270
Phe Glu Glu Pro Arg Ala Arg Tyr Gly Ser Ser Pro Ser Ser Ser Arg
        275                 280                 285
Gly Glu Ser Pro Ala Pro Ser Ala Asn Gln Gly Pro Val Val Gly Arg
    290                 295                 300
Cys Gln Glu Leu Glu Lys Asn Tyr Phe Arg Leu Thr Ser Ala Pro Asn
305                 310                 315                 320
Pro Asp Thr Val Arg Pro Leu His Val Leu His Lys Thr Leu Asp Leu
                325                 330                 335
Leu Lys Lys Lys Trp Lys Lys Asp Asn Asn Tyr Gly Tyr Ile Cys Asp
            340                 345                 350
Gln Phe Lys Ser Leu Arg Gln Asp Leu Thr Val Gln His Ile Arg Asn
        355                 360                 365
Glu Phe Thr Val Ser Val Tyr Glu Ile His Ala Arg Ile Ala Leu Glu
    370                 375                 380
Lys Gly Asp Leu Gly Glu Tyr Asn Gln Cys Gln Thr Gln Leu Arg Ala
385                 390                 395                 400
Leu Tyr Ala Gln Asn Leu Gly Gly His Pro Thr Glu Phe Lys Ala Tyr
                405                 410                 415
Arg Ile Leu Tyr Phe Ile His Thr Arg Asn Trp Thr Ala Met Asn Asp
            420                 425                 430
Ala Leu Ala Asp Leu Thr Ala Ala Asp Lys Arg Asp Pro Ala Val Lys
        435                 440                 445
His Ala Leu Asp Val Arg Ser Ala Leu Ala Leu Gly Asn Tyr His Arg
    450                 455                 460
Phe Phe Gln Leu Tyr Leu Asp Thr Pro Asn Met Gly Ala Tyr Leu Met
465                 470                 475                 480
Asp Met Phe Val Asp Arg Glu Arg Leu Ser Ala Leu Ala Ala Ile Cys
                485                 490                 495
Lys Ala
```

<210> 32117
<211> 217
<212> PRT
<213> A.fumigatus

<400> 32117
Ala Thr Leu Asp Ser Ser Phe Met Ser Lys Leu Asp Gly Tyr Leu Lys

```
1               5                   10                  15
Ser Leu Val Ala Arg Arg Ser Leu Val Asp Asn Val Thr Ser Gly Leu
            20                  25                  30
Ser Thr Ala Val Asp Ser Val Gly Ser Val Gly Asn Thr Ala Ser Ala
        35                  40                  45
Ala Gln Thr Leu Thr Asp Val Ala Gly Ser Ala Ala Ser Thr Val Ala
    50                  55                  60
Ser Val Gly Glu Asp Ile Thr Ser Ala Thr Asn Lys Thr Leu Val Asn
65                  70                  75                  80
Ala Val Asp Ala Ala Leu Ser Arg Thr Arg Ala Asp Tyr Pro Asp Phe
                85                  90                  95
Leu Ile Val Gly Leu Trp Ser Tyr Cys Asn Gly Ser Phe Asp Gly Ser
            100                 105                 110
His Thr Pro Ile Val Thr Asn Cys Ser Thr Pro Ser Thr Thr Phe Ser
        115                 120                 125
Phe Asn Phe Ser Gly Ala Leu Gly Leu Asp Ser Ser Trp Val Ala Ser
    130                 135                 140
Ile Phe Pro Ser Ala Leu Gln Asp Ala Ile Asp Tyr Tyr His Lys Phe
145                 150                 155                 160
Thr Asn Trp Met Val Ser Ala Trp Ile Ile Thr Val Val Ser Thr Val
                165                 170                 175
Leu Val Leu Leu Ala Gly Leu Thr Ala Phe Gly Ser Arg Trp Gly Ser
            180                 185                 190
Leu Ile Thr Ser Phe Cys Ala Val Val Thr Thr Ala Leu Phe Pro Leu
        195                 200                 205
Thr Glu Ser Lys Arg Arg Leu Thr His
    210                 215
```

<210> 32118
<211> 255
<212> PRT
<213> A.fumigatus

<400> 32118

```
Ile Lys Gln Gln Lys Glu Ser Ile Cys Ala Ala Gly Ser Pro Gln Tyr
1               5                   10                  15
Thr Gly Trp Leu Ala Val Gly His Lys His Leu Phe Phe Trp Tyr Phe
            20                  25                  30
Glu Ser Gln Asn Asp Pro Ser His Asp Pro Leu Thr Leu Trp Met Ser
        35                  40                  45
Gly Gly Pro Gly Val Ser Ser Met Val Gly Leu Phe Gln Glu Ile Gly
    50                  55                  60
Pro Cys Leu Val Asn Glu Tyr Gly Asn Gly Thr Tyr His Asn Pro Trp
65                  70                  75                  80
Gly Trp Ser Arg Tyr Ser Ser Leu Leu Phe Val Asp Gln Pro Val Asp
                85                  90                  95
Val Gly Phe Ser Tyr Val Asp Gly Gly His Glu Leu Pro Arg Asp Ser
            100                 105                 110
Lys Glu Ala Ala Val Asp Met His Arg Phe Leu Gln Leu Phe Val Ser
        115                 120                 125
Glu Val Phe Pro His Leu Gln Asp Leu Pro Val His Val Ser Gly Glu
    130                 135                 140
Ser Phe Ala Val Trp Lys Met Leu Ser Phe Pro Arg Thr Asn His Thr
145                 150                 155                 160
Asp Ile Pro Gly Ser Leu Tyr Ser Val Pro Trp Arg Ser Asp His Thr
                165                 170                 175
```

```
Ala Glu Arg Ala Val Ala Gln Pro Ala Thr Gly Ala Ala Gln Val Val
            180                 185                 190
Phe Gly Gly Gln Trp Leu His Val Pro Glu Gly Tyr Ile Leu Arg Val
        195                 200                 205
Leu Gly Asn Ala Leu His His Glu Ser Arg Cys Gly Lys Ala Arg Val
    210                 215                 220
Gln Pro Asp Ala Leu Arg Ser His Arg Leu Glu His Ala Ser Val His
225                 230                 235                 240
Gly Ser Gln Cys Ser Val Cys Pro Glu Ser Arg Ser Gly Phe Val
                245                 250                 255
```

<210> 32119
<211> 171
<212> PRT
<213> A.fumigatus

```
<400> 32119
Ala Val Pro Asn Ser Val Thr Ala Pro Cys Glu Ile Asp Asp Met Cys
1               5                   10                  15
Tyr Ile Gln Ala Val His Val Glu Gln Tyr Leu Asn Thr Pro Ala Val
            20                  25                  30
Trp Asn Ala Leu Ser Pro Pro Lys Gln Ile Ser Glu Tyr Lys Met Val
        35                  40                  45
Ser Glu Ala Val Ile Asp Ala Phe Ala Lys Ser Ser Asp Gly Met Thr
    50                  55                  60
Ser Thr Ser Asp Leu Val Ala Phe Leu Leu Ala Asn Gln Val His Phe
65                  70                  75                  80
Leu Ala Tyr Gln Gly Asn Leu Asp Leu Ala Cys Asn Thr Ala Gly Asn
                85                  90                  95
Leu Arg Trp Ala His Ser Leu Val Trp Lys Gly Gln Ala Glu Phe Ala
            100                 105                 110
Ser Lys Pro Leu Arg Pro Trp Arg Ser Pro Val Ala Ala Thr Asp Arg
        115                 120                 125
Asn Glu Thr Val Gly Thr Met Lys Glu Val Trp Val Arg Val Gly Asn
    130                 135                 140
Ala Asp Thr Glu Ser Arg Phe Ala Leu Val Thr Val Asp Gly Ala Gly
145                 150                 155                 160
His Leu Val Ser Thr Cys Arg Glu Tyr Asn Pro
                165                 170
```

<210> 32120
<211> 91
<212> PRT
<213> A.fumigatus

```
<400> 32120
Asp Val Val Gly Ser Val Ser Arg Ser Gly Arg Phe Ser Arg Thr Val
1               5                   10                  15
Lys Arg Glu Ala Asp Leu Ile Arg Leu Thr Arg Phe Ile Ala Thr Gly
            20                  25                  30
Val Thr Val Pro Gly Leu Phe Val Arg Ala Ala Tyr Trp Pro Glu Lys
        35                  40                  45
Trp Asp Trp Val Asn Asn Val Leu Met Tyr Trp Leu Val Gly Ala Phe
    50                  55                  60
Tyr Cys Leu Asp Ile Ala Tyr Gly Met Cys Leu Trp Tyr Phe Arg Arg
65                  70                  75                  80
```

```
Leu Glu Arg Met Ser Ser Arg Val Lys Gln Gly
                85                  90

<210> 32121
<211> 176
<212> PRT
<213> A.fumigatus

<400> 32121
Thr Ile Lys Met Asp Gly Leu Asp Phe Asp Thr Ala Pro Val Glu Phe
1               5                  10                  15
Gln Lys Val Arg Trp Ile Val Glu Thr Pro Leu Ile Ile Ala Gly Met
            20                  25                  30
Gly Trp Thr Leu Asn Tyr Phe Phe Thr Ile Arg Lys Ala Tyr Gln Asp
        35                  40                  45
Arg Met Ser Gly Val Ser Leu Ile Ala Leu Ser Asn Asn Leu Ala Trp
    50                  55                  60
Glu Ile Ala Phe Ala Leu Ile Asn Pro Pro Pro Asn Pro Leu Ala Arg
65                  70                  75                  80
Val Asn Tyr Pro Leu Trp Leu Ser Val Asn Ala Phe Val Leu Tyr Ala
                85                  90                  95
Thr Val Lys Cys Glu Arg Glu Ser Gly Leu His Ser Pro Phe Met Arg
            100                 105                 110
Arg His Leu Pro Phe Ile Val Leu Ile Ser Ile Leu Gly Leu Leu Ser
        115                 120                 125
Gly His Leu Ala Phe Ser Ser His Val Gly Pro Leu Ala Ala Leu Phe
    130                 135                 140
Trp Gly Gly Met Phe Cys Gln Val Thr Leu Ser Ala Ser Ala Leu Gly
145                 150                 155                 160
Leu Leu Leu Gln Arg Gly His Thr Arg Gly Met Ser Tyr Lys Met Trp
                165                 170                 175

<210> 32122
<211> 101
<212> PRT
<213> A.fumigatus

<400> 32122
Lys Asp Glu Glu Ala Ser Lys Ala Ile Pro Ser Leu Lys Gln Ser Pro
1               5                  10                  15
Ser Leu Lys Gly Leu Asn His Leu Ala Thr Asp Gly Val Tyr Arg Ser
            20                  25                  30
Phe Ser Ser Ser Gly Gln Val Val Asp Tyr Lys Gln Leu Ser Pro Ala
        35                  40                  45
Asp Ile Thr Lys Val Leu Glu Phe His Glu Lys Tyr Met Asp Ser Glu
    50                  55                  60
Ile Phe Gln Lys Thr Lys Lys Lys Phe Asp Gly Val Asp Gly Arg Asn
65                  70                  75                  80
Val Thr Asp Leu Glu Gln Leu Leu His Pro Gly Pro Glu Ser Arg Pro
                85                  90                  95
Val Arg Phe Arg Glu
            100

<210> 32123
<211> 221
<212> PRT
```

<213> A.fumigatus

<220>
<221> UNSURE
<222> (5)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32123

```
Arg Gly Gly Phe Xaa Ile Val Glu Arg Ser Phe Ser His Pro Arg Gly
1               5                  10                  15
Glu Asp Ala Ile Ala Leu Ala Asn Thr Gly Ala Thr Leu Ala Leu Ile
            20                  25                  30
Asp Val Asp Val Glu Ala Leu Glu Pro Thr Lys Ala Ala Ala Arg Asn
        35                  40                  45
Val Gln Asp Arg Gln Ser His Val Glu Thr Tyr Gly Leu Asp Ile Thr
    50                  55                  60
Asp Pro Gly Ala Val Gln Ser Thr Phe Lys Ser Ile Ala Ala Thr Leu
65                  70                  75                  80
Gly Arg Val Asp Ile Leu Val Asn Asn Ala Gly Ile Thr Arg Leu His
                85                  90                  95
Leu Phe Ala Glu Glu Glu Gly Phe Asp Asp Phe Trp Arg Thr Val Glu
            100                 105                 110
Val Asn Phe Lys Gly Thr Met Leu Cys Ile His Ala Val Leu Pro Gly
        115                 120                 125
Met Val Glu Gln Lys Ser Gly Cys Ile Ile Asn Met Ala Ser Arg Ala
    130                 135                 140
Ala Thr Val Asp Gly Pro Lys Ser Val Gly Tyr Asn Ala Ser Lys Ala
145                 150                 155                 160
Ala Leu Val Arg Ala Thr Gly Ser Leu Gln Glu Asp Leu Ala Ser Met
                165                 170                 175
Gly Leu Gly Glu Gln Val His Ala Tyr Cys Leu His Pro Gly Ser Val
            180                 185                 190
Trp Gly Asp Ile Ile Thr Gly Lys Leu Thr His Thr Arg Gly Ala Phe
        195                 200                 205
Pro Gly Ile Gln Val Gln Thr Pro Lys Lys Trp Phe Lys
    210                 215                 220
```

<210> 32124
<211> 596
<212> PRT
<213> A.fumigatus

<400> 32124

```
Tyr Val Asp Arg Tyr Pro Val Asn Gly Arg Leu Pro Val Lys Pro Asn
1               5                  10                  15
Ile Arg Ala Leu Ser Glu Pro Trp Val Arg Ser Ala Asn Leu Ser Trp
            20                  25                  30
Met Ser Leu Pro Ser Arg Ala Asn Leu Gly Asn Ala Arg Arg Trp Met
        35                  40                  45
Met Leu Val Arg Cys Leu Asn Ser Gly Ile Glu Leu Thr Val Glu Leu
    50                  55                  60
Asn Ile Ala Val Ala Asp Pro Ile Tyr Glu Glu Pro Gln Ser Asp Ala
65                  70                  75                  80
Asp Tyr Val Ser Ser Asp Glu Ser Ser Val Asn Ser Asp Ser Leu His
                85                  90                  95
Glu Thr Pro Ala Thr Pro Ile Ser Thr Thr Ser Ala Lys Tyr Pro Ser
```

```
            100                 105                 110
Glu Leu Lys Thr His Arg Cys Pro Phe Asp Gly Cys Thr Lys Ala Phe
        115                 120                 125
Asn Arg Pro Ala Arg Leu Gln Glu His Leu Arg Ser His Asn Asn Glu
    130                 135                 140
Arg Ile Phe Lys Cys Thr Phe Glu Glu Cys Asp Lys Thr Phe Leu Arg
145                 150                 155                 160
Ala Ser His Leu Asn His His Ile Lys Ser Ala His Thr Gly Val Arg
                165                 170                 175
Asp Tyr Val Cys Asp Arg Pro Gly Cys Gly Lys Ser Phe Val Thr Gly
            180                 185                 190
Ser Arg Leu Arg Arg His Leu Ala Ala His Asp Gly Arg Asp Lys Tyr
        195                 200                 205
Arg Cys Thr Glu Tyr Pro Pro Cys Asn Glu Thr Phe Arg Lys His Ser
    210                 215                 220
Thr Leu Gln Lys His Ile Met Thr Ala His Leu Lys Gln Lys Pro Phe
225                 230                 235                 240
Gln Cys Pro His Thr Asp Pro Ser Thr Gly Gln Lys Cys Thr Met Ala
                245                 250                 255
Phe Asp Thr Ala Gly His Leu Arg Ala His Glu Ser Arg Ile His Thr
            260                 265                 270
Glu Lys Arg Phe Ser Cys Thr Glu Cys Ser Gln His Ala Glu Gly Ala
        275                 280                 285
Glu Ala Thr Phe Pro Thr Tyr Ala Leu Leu Gln Ala His Ile Arg Ser
    290                 295                 300
Val His Pro Pro Gln Cys Pro Asn Cys Ala Leu Thr Cys Ala Thr Ser
305                 310                 315                 320
Arg Glu Leu Arg Arg His Leu Glu Val Ala His Gly Asp Val Ser Leu
                325                 330                 335
Glu Glu Arg Lys Ile Phe Pro Cys Thr Val Pro Gly Cys Asp Arg Ser
            340                 345                 350
Phe Thr Lys Lys Gly Asn Leu Thr Val His Ile Arg Thr Val His Gln
        355                 360                 365
Gly Glu Lys Arg Phe Val Cys Gly Glu Thr Asp Leu Ser Ser Ser Lys
    370                 375                 380
Lys Val Ser Gly Trp Asn Asn Asp Asn Gly Cys Gly Lys Arg Tyr Gly
385                 390                 395                 400
Ser Lys Leu Ala Leu Glu Glu His Ile Arg Thr Ala His Leu Gly Tyr
                405                 410                 415
Gln Asn Ala Lys Ala Glu Arg Arg Gln Arg Leu Gly Ile Thr Arg Asp
            420                 425                 430
Arg Gln His Ser Thr Ala Thr Ser Pro Gly Val Ser Ala Leu Ala Ala
        435                 440                 445
Leu Thr Gly Glu Gly Tyr Ala Glu Glu Thr Gly Arg His Ile Ala Cys
    450                 455                 460
Leu Val Glu Ser Cys Pro His Arg Phe His Arg Asp Tyr Asp Leu Trp
465                 470                 475                 480
Val His Met Ser Gly Lys His His Phe Ser Glu Glu Glu Thr Arg Asp
                485                 490                 495
Leu Phe Leu Arg Arg Ala Leu Leu Ala His Asp Phe Gly Ala Ser Ala
            500                 505                 510
Ser Ala Ser Ala Ser Ser Glu Glu Leu Phe Gly Gly Ile Tyr Gly Leu
        515                 520                 525
Glu Phe Asp Asn Asp His Ser Ser Tyr Asp Pro Tyr Val Leu Asp Gly
    530                 535                 540
Ser Glu Thr Ile Ala Thr Ser Gly Ala Ala Val Ser Lys Pro Leu Pro
```

545 550 555 560
Ala His Gly Ala Asp Val Met Met His Asp Asn Ser Ser Thr Ile Pro
565 570 575
Thr Pro Gly Asp Asp Met Ala Leu Ile Asp Pro Ala Leu Ala Tyr Asp
580 585 590
Met Met Glu Ser
595

<210> 32125
<211> 79
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (66)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32125
Thr Tyr Pro Asp Leu Leu Val Phe Gly Ser Gly Gly Lys Val Leu Ala
1 5 10 15
Val Gly Thr Glu Ala Asp Ala Ala Asn Ile Gln Val Ser Ile Leu Val
20 25 30
Tyr Thr Phe Val Leu Gln Gly Ser Asp Asp Leu Ala Ser Gly His Val
35 40 45
Glu Asp Leu Ser Gly Ala Val Ala Ala Arg Gly Glu Val Val Pro Val
50 55 60
Ala Xaa Glu Ser Gly Ser Arg Pro Tyr Ser Ala Ser Ile Arg Gly
65 70 75

<210> 32126
<211> 83
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (14)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32126
Thr Pro Asp Thr Ser Ala Val Arg Pro Thr Ser Arg Leu Xaa Arg Asp
1 5 10 15
Gly Asp His Leu Ala Ala Gly Cys Asn Arg Ser Ala Gln Ile Phe Asp
20 25 30
Val Thr Thr Gly Gln Ile Val Ala Thr Leu Gln Asp Glu Ser Val Asp
35 40 45
Lys Asp Gly Asp Leu Tyr Ile Arg Ser Val Cys Phe Ser Pro Asp Gly
50 55 60
Lys Tyr Leu Ala Thr Gly Ala Glu Asp Lys Gln Ile Arg Val Cys Ser
65 70 75 80
Leu Phe Ser

<210> 32127
<211> 180

<212> PRT
<213> A.fumigatus

<400> 32127
Asp Phe Val Leu Ser Val Cys Leu Thr Pro Asp Gly His Trp Val Met
1 5 10 15
Ser Gly Ser Lys Asp Arg Gly Val Gln Phe Trp Asp Pro Ile Thr Gly
20 25 30
Asn Ala Gln Met Met Leu Gln Gly His Lys Asn Ser Gly Gln His Phe
35 40 45
Phe Pro Tyr Leu Ser Cys His Ser Leu Trp Pro Ile Ser Ser Val Phe
50 55 60
Gln Cys Leu Thr Gly Phe Tyr Ser His Leu Gly Cys Ser Gln Pro Tyr
65 70 75 80
Arg Gln Phe Val Arg His Gly Gln Trp Arg His Ala Gly Glu Asn Leu
85 90 95
Glu Val Cys Phe Gly Val Gln Phe Leu Leu Leu Ile Trp Lys Leu Thr
100 105 110
Pro Gly Cys Arg Trp Gln Ile Leu His Leu Tyr Arg Thr Val Met Gly
115 120 125
Leu Met Met Gly Ser Phe Gly Ala Asn Val Thr Ser Phe Val Cys Leu
130 135 140
Ile His Asn Val Val Ala Ser Leu Asn Met Ala Trp Val Cys Phe Cys
145 150 155 160
Val Gln Pro Leu Gln Gly Ser Val Leu Ser His Arg Ser Phe Gly Phe
165 170 175
Ser Phe Pro Arg
180

<210> 32128
<211> 119
<212> PRT
<213> A.fumigatus

<400> 32128
Val Trp Asp Ile Ala Ala Arg Thr Ile Lys His Ile Phe Thr Gly His
1 5 10 15
Glu Gln Asp Ile Tyr Ser Leu Asp Phe Ala Gly Asn Gly Arg Tyr Ile
20 25 30
Ala Ser Gly Ser Gly Asp Lys Thr Val Arg Leu Trp Asp Ile Leu Asp
35 40 45
Gly Lys Leu Val Tyr Thr Leu Ser Ile Asp Asp Gly Val Thr Thr Val
50 55 60
Ala Met Ser Pro Asp Gly His Tyr Val Ala Ala Gly Ser Leu Asp Lys
65 70 75 80
Ser Val Arg Val Trp Asp Thr Thr Thr Gly Tyr Leu Val Glu Arg Leu
85 90 95
Glu Ser Pro Asp Gly His Lys Asp Thr Val Tyr Ser Val Ala Phe Gly
100 105 110
Ser Gln Trp Ser Gly Ser Gly
115

<210> 32129
<211> 67
<212> PRT
<213> A.fumigatus

<400> 32129
Gly Gly His Ala Asn Val Asp Thr Val Val Ser Asn Ile Arg Pro Ala
1 5 10 15
Lys Thr Leu Leu Gly Glu Leu Ala Lys Thr Lys Thr Asn Thr Lys Gln
20 25 30
Lys Asn Ala Gln Gln Asn Pro Thr Ser Glu Arg Val Lys Gln Glu Val
35 40 45
Asp Ser Asp Leu Ser Leu Asn His Gln Ala Lys Cys Asn Leu Gln Cys
50 55 60
Ser Ala Thr
65

<210> 32130
<211> 91
<212> PRT
<213> A.fumigatus

<400> 32130
Ala Phe Phe Cys Leu Val Phe Val Leu Val Phe Ala Ser Ser Pro Ser
1 5 10 15
Asn Val Leu Ala Gly Arg Met Leu Leu Thr Thr Val Ser Thr Leu Ala
20 25 30
Trp Pro Pro Tyr Asp Thr Trp Ile Asp Ala Ser Cys Asp Lys Asp Leu
35 40 45
Asp Ala Asp Phe Ile Phe Leu Ser Leu Asp Lys Glu Glu Asn Ser Asn
50 55 60
Ala Gly Arg Ser Asp Val Ser Asp Ser Asn Ala Tyr Leu Gln Val Leu
65 70 75 80
Asp Thr Leu Ala Ser Tyr Asp Leu Ser Ala Gly
85 90

<210> 32131
<211> 75
<212> PRT
<213> A.fumigatus

<400> 32131
Thr Asp Leu Val Ala Gln Ile Glu Arg Arg Leu Ala Pro Phe Trp Arg
1 5 10 15
Gly Leu Asn Asp Phe Ser Glu Ser Trp Thr Glu His Gln Leu Met Ala
20 25 30
Ala Ala Arg Gly Leu Pro Ile Pro Pro Pro Asp Glu Ile Pro Pro Glu
35 40 45
Leu Glu Tyr Lys Asn Pro Pro Lys Leu Ser Gly Asp Gly Lys Glu Pro
50 55 60
Ser Ile Gln His Ser Leu His Arg Gly Met Arg
65 70 75

<210> 32132
<211> 313
<212> PRT
<213> A.fumigatus

<400> 32132
Ser Leu Arg Lys Val Ser Ala Leu Val Ser Ser Ile Pro Ile Val Ile

```
1               5                   10                  15
Val Leu Met Val Ser Thr Arg Val Gly Met Ile Leu Ser Arg Tyr Lys
            20                  25                  30
Ser Gly Pro Leu Pro Lys Pro Phe Lys Ile Leu Pro Ser Val Pro Asn
        35                  40                  45
Trp Pro Thr Leu Leu Ser Ile Thr Arg Pro Glu Ser Trp Thr Ala Asn
    50                  55                  60
Ala Val Tyr Ala Gly Thr Arg Ile Phe Ile Ser Ser Lys Pro Ala Val
65                  70                  75                  80
Ala Gln Glu Phe Ile Ser Thr Val Leu Leu Asp Arg Val Arg Glu Glu
                85                  90                  95
Ile His Glu Thr Lys Lys Leu Asn Val His Thr Tyr Asn Ala Leu Lys
            100                 105                 110
Lys Ala Leu Tyr Lys Pro Ala Cys Phe Phe Lys Gly Leu Leu Phe Pro
        115                 120                 125
Leu Val Ser Ser Gly Thr Cys Thr Leu Arg Glu Ala His Ile Val Ser
    130                 135                 140
Ser Val Ile Ala Arg Val Ser Ile Pro Val Leu His Ser Ala Ala Ala
145                 150                 155                 160
Leu Leu Arg Met Cys Asp Leu Ala Ala Glu Gln Ser Leu Arg Ser Leu
                165                 170                 175
Glu Ser Thr Gly Ala Val Asn Val Phe Ile Arg Val Phe Leu Glu Lys
            180                 185                 190
Lys Tyr Ala Leu Pro Tyr Lys Val Ile Asp Ala Leu Val Phe His Phe
        195                 200                 205
Leu Arg Phe Arg Ala Cys Asp Asn Ala Glu Asp Ser Met Met Thr Asp
    210                 215                 220
Gly Pro Ser Gly Ala Ala Thr Lys Ala Tyr Lys Leu Pro Val Leu Trp
225                 230                 235                 240
His Gln Ser Leu Leu Val Phe Ala Gln Arg Tyr Arg Asn Asp Ile Thr
                245                 250                 255
Glu Asp Gln Arg Glu Ala Leu Leu Asp Leu Leu Leu Val Arg Gly His
            260                 265                 270
Lys Asp Ile Gly Pro Glu Val Arg Arg Glu Leu Leu Ala Gly Arg Gly
        275                 280                 285
Arg Gly Val Val Val Pro Asp Pro Glu Lys Gln Gly Ala Leu Asp Ala
    290                 295                 300
Gly Asp Asp Thr Met Asp Val Thr Phe
305                 310
```

<210> 32133
<211> 61
<212> PRT
<213> A.fumigatus

```
<400> 32133
Leu Cys Arg Asn Val Ser Val Leu Arg Asn Gly Pro Asn Thr Thr His
1               5                   10                  15
Lys Asn Ser Ser Phe Tyr Ser Lys Phe Asn Ala Lys Asp Ile Gly His
            20                  25                  30
Val Ser Ile Ser Glu Ser Pro Gly Arg Thr Asp Thr Tyr Gln Gly Val
        35                  40                  45
Ala Pro Pro Ile Leu Arg Phe Pro Asn Glu Cys Gln Trp
    50                  55                  60
```

<210> 32134

<211> 240
<212> PRT
<213> A.fumigatus

<400> 32134
Leu Cys Ser Val Ser Ser Ala Ala Glu Asp Arg Arg Asn Met Pro Ser
1 5 10 15
Leu Trp Gly Phe Ile Leu Ala Ile Leu Gly Met Val Leu Val Leu Ser
20 25 30
Ile Ile Ile Leu Leu Cys Tyr Gln Phe Val Gln Lys Arg Arg Arg Leu
35 40 45
Ala Leu Glu Arg Arg Ile Ser Ala Gly Glu Thr Asp Thr Glu Asn Phe
50 55 60
Gly Leu His His Ile Arg Val Ser Arg Glu Val Leu Asp Gln Ile Pro
65 70 75 80
Thr Tyr Val Tyr Ser Ala Val Asn Ile Pro Ser Lys Val Ser Leu Arg
85 90 95
Ser Ser Pro Ser Gln Thr Gln Ile Thr Leu Ala Arg Ala Asp Asp Ala
100 105 110
Ser Ser Ile Arg Ser Val Asp Pro Lys Glu Pro Arg Leu Val Tyr Lys
115 120 125
Glu Thr Glu Met Gln Ala Ser Ser Ser Thr Ile Arg Leu Pro Glu Thr
130 135 140
Ala Ile Thr Cys Gln Ser Ser Arg Pro Pro Ser Ala Arg Glu Cys Ser
145 150 155 160
Asp Ser Ala Ser Arg Ser Gln Pro Thr Cys Ala Ile Cys Leu Asp Asp
165 170 175
Phe Val Ser Gly Ile Thr Ile Val Arg Glu Leu Pro Cys Gly His Ile
180 185 190
Phe His Pro Ser Cys Ile Asp Val Ser Leu Thr Gln Ile Ser Ser Leu
195 200 205
Cys Pro Leu Cys Lys Lys Ser Val Leu Pro Ala Glu Tyr Tyr Thr Thr
210 215 220
Pro Ala Asp Asp Met Gly Val His Arg Asp Tyr Val Val Thr Glu His
225 230 235 240

<210> 32135
<211> 132
<212> PRT
<213> A.fumigatus

<400> 32135
Met Gln Leu Phe Ser Ala Ser Gln Ser Gln Thr Gln Ala Ile Asp Leu
1 5 10 15
Ala Arg Phe Phe Cys Gln Ser Thr Asn Ile Asp Ile Ser Ile Ile Gln
20 25 30
Thr Gln Lys Lys Glu Glu Ala Arg Asn Leu Pro Ser Lys Leu Val Met
35 40 45
Leu Pro Leu Asn Pro His Ile Glu His Leu Phe Met Glu Ser Ser Phe
50 55 60
Pro Pro Arg Pro Leu Gln Pro Leu His Leu Met Leu Leu Gln Pro Ser
65 70 75 80
Pro His Asn Thr Leu Gln Leu Leu Pro Thr Asn Leu Leu Pro Arg Leu
85 90 95
Gly Leu Leu Val Arg Phe Asp Thr Arg Leu Glu Ser Arg Leu His Ala
100 105 110

```
Asn Pro Gln Arg Arg Leu Lys Thr Lys Thr Thr Arg Val Ala Ala His
        115                 120                 125
Leu Asp His Ala
    130
```

<210> 32136
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32136

```
Cys Phe Ile Ala Ser Arg Lys Arg Ala Tyr Met His Arg Val Thr Glu
1               5                   10                  15
Gly Ile Arg Pro Ile Leu Pro Leu Val Phe Asp Ser Ser Asp Asp Val
            20                  25                  30
Arg Ile Ile Thr Leu Ile Arg Leu Lys Ser Pro Ser Thr Lys Ser Tyr
        35                  40                  45
Leu Arg Pro Ser Leu Tyr Asn Phe Val Arg Tyr Arg Val Ala
    50                  55                  60
```

<210> 32137
<211> 505
<212> PRT
<213> A.fumigatus

<400> 32137

```
Leu Ser Asp Ala Asn Thr Pro Pro Val Arg Gly Ser Ser Pro Arg Ser
1               5                   10                  15
Ile Leu Tyr Leu Ile Arg Ser Ala Thr Thr Tyr Ile Met Ser Gln Glu
            20                  25                  30
Ser Gln Leu Ser Gln Thr Ser Leu Ala Pro Pro Leu Glu Leu Ser Gly
        35                  40                  45
Pro Ala Thr Pro Asp Arg Arg Pro Ser Leu Ser Ala Ser Pro Glu Leu
    50                  55                  60
Asp Glu Lys Val Gln Val Gln Val Ser Gln Ala Asp Gln Arg Lys Leu
65                  70                  75                  80
Val Ser Pro Pro Ser Leu Ala Ser Ser Asp Met Thr Pro Pro Pro Ser
                85                  90                  95
Ser Gln Val Pro Gly Ala Pro Leu Arg Arg Ser Arg Ser Arg Ser Thr
            100                 105                 110
Thr Tyr Leu Ala Ser Pro Pro Asp Ile Glu Lys Thr Leu Cys Ala Ala
        115                 120                 125
Tyr Gly Ala Ser Glu Asn Leu Pro Ser Val Gly Asp Ile Asp Thr Ala
    130                 135                 140
Gly Glu Pro Glu Leu Arg Ile Ile Ala Lys Glu Leu Leu Ser Val Ala
145                 150                 155                 160
Gln Glu Ala Arg Met Ser Ala Leu His Phe Lys Leu Gln Asn Ser Leu
                165                 170                 175
Leu Ser Phe Thr Ser Asn Glu Ala Ile Lys Arg Ala Glu Val Glu His
            180                 185                 190
Gln Leu Ala Arg Arg Glu Val Glu Ile Leu Gln Ser Ser Glu Tyr Arg
        195                 200                 205
Asn Arg His Gly Pro Thr Glu Val Lys Pro Leu Gln Pro Ile Ser Asn
    210                 215                 220
Ala Glu Leu Glu Ala Ala Leu Arg Arg Asn Gln Glu Leu Glu Arg Val
225                 230                 235                 240
```

```
Asn Ala Thr Leu Asp Arg Arg Leu Arg Arg Ala Lys Lys Leu Ile Glu
                245                 250                 255
Gln Glu Lys Glu Lys Ser Glu Leu Leu Met Glu Glu Asn Asn Leu Leu
            260                 265                 270
Lys Lys Arg Ile Arg Glu Asn Arg Glu His Phe Ser Arg Met Ile Glu
        275                 280                 285
Arg Gly Ser Met Ser Pro Ser Pro Gln Ile Gln Ser Gly Thr Pro Gln
    290                 295                 300
Arg Lys Pro Val Pro His Phe His Asp Ser Pro Ser Pro His Met Ser
305                 310                 315                 320
Arg Gly Glu Ser His Pro Phe Asp Ala Leu Leu Ala Ala Asp Arg Val
                325                 330                 335
Leu Asn Arg Gly Ser Ser Asp Phe Gln Ser Ser Pro Gln Arg Phe Ser
            340                 345                 350
Gln Arg Gln His Ser Asn Gly His Val Arg Gly Thr His Ser Leu Ser
        355                 360                 365
Ser Leu Pro Met Thr Pro Ser Gln Pro Arg Thr Thr Pro Arg Glu His
    370                 375                 380
Leu Phe Phe Thr Pro Thr Arg Asn Thr Gln Tyr Glu Gln Arg Asp Arg
385                 390                 395                 400
Asp Ser Thr Ile Ser Ala Ser Asp Ile Glu Glu Ala Glu Thr Glu Glu
                405                 410                 415
Asp Ile Pro Ala Ser Gln Pro Asp Ser Pro Ala Thr Ser Met Val Arg
            420                 425                 430
Pro Asp Pro Val Ile Ser Gln Gln Gln Thr Arg Ser Ala Ala Ile Ala
        435                 440                 445
Pro Lys Thr Ser Thr Leu Leu Pro Thr Lys Leu Phe Gly Gln Val Arg
    450                 455                 460
Asn Ala Gly Val Asp Arg Pro Pro Ser Gly Leu Lys Arg Ile Ala Ser
465                 470                 475                 480
Ile Asp Glu Ser Ala Ala Ser Lys Ile Ser Asn Ala Ala Asp Gly Val
                485                 490                 495
Gly Leu Gly Ile Glu Ala Tyr Thr Ser
            500                 505

<210> 32138
<211> 78
<212> PRT
<213> A.fumigatus

<400> 32138
Leu Met Phe Asn Phe Gly Ala Leu Asp Cys Phe Ile Thr Cys Glu Arg
1               5                   10                  15
Gln Lys Ala Ile Leu Lys Phe Glu Met Gln Arg Arg His Thr Ser Phe
            20                  25                  30
Leu Arg Asn Thr Glu Glu Leu Phe Gly Asp Tyr Thr Gln Leu Gly Leu
        35                  40                  45
Ala Ser Ser Val Asn Val Thr Asp Arg Trp Lys Ile Leu Arg Gly Thr
    50                  55                  60
Val Cys Ser Ala Gln Ser Leu Phe Asn Ile Trp Arg Arg Cys
65                  70                  75

<210> 32139
<211> 221
<212> PRT
<213> A.fumigatus
```

<400> 32139
Ser Ser Thr Arg Ser Ser Leu Ser Leu Leu Gln Ser Pro Thr Met Ser
1 5 10 15
Asp Ser Asn Pro Asp Glu Thr His Lys Cys Gln Ser Cys Lys Lys Ala
20 25 30
Glu Ser Lys Ser Val Pro Leu Arg Asn Cys Phe Arg Cys Lys Ser Ala
35 40 45
Ile Tyr Cys Ser Arg Asp Cys Gln Lys Ala Asp Arg Lys Thr His Lys
50 55 60
Lys Val Cys Ala Ser Asn Ala Gln Ala Asn Thr Gly Ser Asn Asn Gln
65 70 75 80
Ser Ala Ser Asp Thr Asn Ala Thr Gln Ser Thr Lys Ala Leu Glu Val
85 90 95
Asp Asp Phe Leu Lys Pro Phe Tyr Arg Leu His Ala Lys Thr Trp Leu
100 105 110
His Asp His Thr Glu Lys Glu Thr Tyr Lys Leu Leu Ile Asp Thr Tyr
115 120 125
Arg Leu Arg Leu Asp Asp Asp Tyr Thr Phe Ser Gly Asp Ile His Glu
130 135 140
Asp Asn Ile Tyr Gly Gly Ala Thr Asp Asp Gly Arg Ala Gly Phe Arg
145 150 155 160
Arg Phe Leu Lys Ser Val Glu Arg Lys Pro His Leu Leu Pro Arg Trp
165 170 175
Trp Thr Pro Ala Lys Ala Glu Glu Cys Ile Arg Tyr Gly Lys Asn Ser
180 185 190
Thr Asn Trp Ser Tyr Leu Gly Tyr Thr Val Glu Lys His Asp Val Val
195 200 205
Glu His Tyr Ala Asn Asn Leu Met Pro Ile Gln Leu Arg
210 215 220

<210> 32140
<211> 116
<212> PRT
<213> A.fumigatus

<400> 32140
Leu Asp Ser Pro Phe Glu Arg Ser Trp Leu Asp Leu Pro Asn Met Glu
1 5 10 15
Gly Asn Thr Ala Ala Asn Ala Gln Ser Leu Ser Pro Glu Pro Ser Ala
20 25 30
Arg Gly Pro Arg Gln Lys Ser Thr Gly Lys Ala Lys Ser Val Asp Pro
35 40 45
Asp Asn Gly Pro Thr Ser Lys Arg Arg Cys Val Ser Thr Ala Cys Ile
50 55 60
Ala Cys Arg Arg Arg Lys Ser Lys Val Met Ser Trp His Phe Arg Leu
65 70 75 80
Val Leu Tyr Leu His His Ile Leu Thr Lys Phe Leu Pro Val Arg Trp
85 90 95
Glu Ser Ala Glu Leu Cys Arg Met Phe Ile Arg Leu Ser Tyr Thr Leu
100 105 110
Tyr Gly Glu Pro
115

<210> 32141
<211> 182

<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (131),(132)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32141
Ile Trp Ile Pro Thr Ala Trp Glu Leu Val Ser Leu Pro Thr Lys Asn
1 5 10 15
Trp Met His Asp Glu Ser His Phe Gly Ala Val Ser Ser Leu Ile Ser
20 25 30
Leu Ser Pro Leu Phe Lys Ser His Phe Phe Gly Cys Ile Ser Asp Glu
35 40 45
Asp Arg Cys Trp Ser Asn Tyr Leu Gly Arg Gln Pro Gln Leu Leu Thr
50 55 60
Ser Gln Val Cys Val Pro Lys Ile Asp Ile Leu Pro Asn Glu Glu Ala
65 70 75 80
Glu Leu Trp Ser Pro Tyr Thr Asp Ser Gly Pro Ser Gln Asp Asn Thr
85 90 95
Gln Pro Ser Arg Ile Arg Thr Val Ala Leu Gln Leu Ala Lys Leu Ser
100 105 110
Glu Ile Ser Gly Asp Leu Leu Gly Tyr Phe Tyr Asp Pro Ser Pro Thr
115 120 125
Asp Arg Xaa Xaa Asn Lys Gln Ala Asp Leu Lys Lys Leu Ser Glu Ile
130 135 140
His Thr Arg Leu Glu Ala Trp Lys Lys Gly Leu Pro Lys Glu Leu Glu
145 150 155 160
Thr Ser Arg Arg Pro Ala Ser Ser Gly Ser Cys Tyr Ala Val Ser Lys
165 170 175
Gln Ala Leu Ser Pro Gln
180

<210> 32142
<211> 90
<212> PRT
<213> A.fumigatus

<400> 32142
Cys Leu Asp Pro Ser Ser Thr Ile Pro Pro Pro Leu Arg Val Glu Thr
1 5 10 15
Pro Trp Cys Asp His Thr Leu Phe Thr Glu Tyr Ile Gln Phe Tyr Pro
20 25 30
Gln Phe Ala Ile Cys Glu Tyr Thr Gln Met Asn Met Gly Thr Lys Phe
35 40 45
Ala Cys Val Asn Leu Gln Ser Gln Ser Lys Arg Trp Ser Ser Gly Ser
50 55 60
Glu Ser Leu Leu Thr Ala Pro Arg Leu Asn Met His Val Leu Met Phe
65 70 75 80
Leu Gln Pro Phe Gln Val Arg Ser Thr Pro
85 90

<210> 32143
<211> 404
<212> PRT

<213> A.fumigatus

<220>
<221> UNSURE
<222> (389)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32143

```
Ala Ser Lys His Ser Val His Asn Glu Thr Leu Pro Leu Met Ile Val
1               5                  10                  15
Asn Ser Met Phe Tyr Gln Leu Leu Phe Ile His Leu Tyr Arg Pro Phe
            20                  25                  30
Leu Arg Tyr Thr Lys Ser Ser Ser Pro Leu Pro Gln His Val Ser Pro
        35                  40                  45
Arg Arg Ile Cys Thr Gln Ala Ala Ala Thr Ile Ser Lys Leu Leu Arg
    50                  55                  60
Met Tyr Lys Arg Thr Tyr Gly Phe Lys Gln Ile Val Asn Val Ala Val
65                  70                  75                  80
Tyr Ile Ala His Thr Ala Cys Thr Ile His Leu Leu Asn Leu Pro Glu
                85                  90                  95
Lys Asn Ala Gln Arg Asp Leu Ile His Gly Leu Arg Asn Leu Asp Glu
            100                 105                 110
Met Gly Glu Ser Trp Leu Cys Ala Arg Arg Thr Leu Arg Ile Leu Asp
        115                 120                 125
Ile Ser Ala Asn Asn Trp Gln Ile Glu Leu Pro Thr Glu Ala Ser Ser
    130                 135                 140
Val Phe Glu Gln Thr His Ala Lys Trp Gly Pro Trp Gly Ser Trp Asp
145                 150                 155                 160
Gln Ala Val Ser Pro Ser Thr Ser Glu Glu Ser Pro Pro Thr Val Ser
                165                 170                 175
Val Gln Leu Pro Ser Ser Ala Ser Ala Tyr Ile Pro Pro Ala Pro Gly
            180                 185                 190
Gly Ala Ser Ile Thr Gln Pro Gly Val Ser Pro Gln Asn Leu Ser Thr
        195                 200                 205
Ser Ala Ser Tyr Gln Gly Asn Gln Gln Tyr Arg Ser Glu Val Ser Phe
    210                 215                 220
Pro Thr Ser Leu Ser Ala Met Arg Ala Ala His Arg Ser Phe Thr Ala
225                 230                 235                 240
Gln Ile Ser Arg Ala Asp Gly Pro Leu Pro Glu Pro Thr Tyr Leu Arg
                245                 250                 255
Pro Val Pro His Ser Tyr Arg Pro Val Gln Ala Phe Pro Leu Thr Gln
            260                 265                 270
His Asp Ala Trp Tyr Asn Gly Gln Val Arg Thr Phe Ser Thr Asp Lys
        275                 280                 285
Asn Thr Ala Ser Ala Thr Glu Ala Ser Pro Leu Thr Gly Phe Asp Glu
    290                 295                 300
Ser Glu Asn Leu Val Glu Glu Ser His Asp Trp Trp Ser Arg Asn Pro
305                 310                 315                 320
Asn Ala Leu Leu Ser Met Gly Thr Glu Asn Trp Glu Gln Arg Leu Asn
                325                 330                 335
Pro Ser Phe Thr Gly Pro Ala Ser Ser Met Arg Tyr Asp Thr Ser Val
            340                 345                 350
Leu Asn Ser Gly Gln Ser Ser Gly Pro Asp Ser Thr Pro Gly Ala Pro
        355                 360                 365
Gln Ala Phe Arg Tyr Pro Val Gly Val Pro Pro Asn Leu Thr Asp Ser
    370                 375                 380
```

```
Glu Gln Gly Pro Xaa Ile Ser Gly Tyr Asn Asn Ile Gly Leu Pro Gly
385                 390                 395                 400
Asp Phe Gln Arg
```

<210> 32144
<211> 334
<212> PRT
<213> A.fumigatus

<400> 32144

```
Pro Gln Gly Val Tyr Asp Pro Asn Ser Asp His Arg Arg Lys Gly Val
1               5                  10                  15
Tyr Lys Lys Asp Thr Ala Asn Leu Arg Thr Lys Asn Ser Thr Leu His
            20                  25                  30
Thr Leu Ile Gln Ala Leu Leu Asn Tyr Asp Glu Glu Asp Ala Phe Asp
        35                  40                  45
Leu Val Arg Gln Ile Arg Ser Cys Asp Ser Leu Glu Asp Val Ala Glu
    50                  55                  60
Ser Ile Val Ser Arg Asp Lys Gly Pro Thr Pro Gly Glu Val Phe Pro
65                  70                  75                  80
Ser Gly Asp Glu Ser Ser Thr His Glu Asp Gln Phe Val Ser Thr Leu
                85                  90                  95
Ala Gly Arg Met Gly Glu Leu Met Leu Asp Gly Ser Arg Lys Tyr Ile
            100                 105                 110
Gly Gly Thr Ser Asn Leu Ile Phe Leu Pro Ser Gly Ser Asp Leu Asn
        115                 120                 125
Glu Phe Asp Ser Ser Leu Lys Gly Arg Pro Leu Asp Arg Ser His Glu
    130                 135                 140
Tyr Ser Val Ser Arg Trp Thr Arg Val Thr Asp Asp Glu Gln Leu Ile
145                 150                 155                 160
Ser His Leu Met Thr Met Tyr Phe Thr Trp His Tyr Pro Phe Phe Thr
                165                 170                 175
Thr Ile Pro Lys Asp Leu Phe Tyr Arg Asp Tyr Val Arg Gly Val Ser
            180                 185                 190
Ser Gln Tyr Cys Ser Ser Leu Leu Val Asn Ala Met Leu Ala Leu Gly
        195                 200                 205
Cys His Phe Ser Ser Trp Lys Gly Ala Arg Ala Asp Pro Ser Asn Ser
    210                 215                 220
Ala Thr Ala Gly Asp His Phe Phe Lys Glu Ala Lys Arg Leu Val Leu
225                 230                 235                 240
Glu Asn Asp Glu His Glu Asn Ala Lys Leu Cys Thr Val Gln Ala Leu
                245                 250                 255
Ala Leu Leu Ser Val Arg Glu Ala Gly Cys Gly Arg Glu Gly Lys Gly
            260                 265                 270
Trp Val Tyr Ser Gly Met Ser Phe Arg Met Ala Phe Asp Leu Gly Leu
        275                 280                 285
Asn Leu Asp Ser Asn Ser Leu Gly Thr Arg Lys Leu Ala Asp Glu Glu
    290                 295                 300
Leu Asp Ala Arg Arg Ile Thr Phe Trp Gly Cys Phe Leu Phe Asp Lys
305                 310                 315                 320
Phe Val Pro Pro Phe Gln Ile Thr Leu Phe Arg Val Tyr Leu
                325                 330
```

<210> 32145
<211> 88

<212> PRT
<213> A.fumigatus

<400> 32145
Ala Arg Leu Ser Ser Ser Leu Gln Gly Pro Thr Asn Lys Asn Val Leu
1 5 10 15
Gly Gln Trp Val Val Gly Ala Cys Asp Ala Ala His Val Thr Gly Ala
20 25 30
Phe Glu His Ser Leu Ile Phe Gln His Ser Glu Leu Pro Ile Gln Tyr
35 40 45
Lys Leu Gln Ser Leu Leu Arg Ser Ile Ser Ser Ser Ile Lys Ser Asn
50 55 60
Ala Glu Ile Asp Ala Ala Asn Ser Arg Gly Gly Leu Ile Leu Ser Glu
65 70 75 80
Tyr Val Pro Asn His Arg Lys Ala
85

<210> 32146
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32146
Ser Val Val Lys Arg Leu Thr Ile Gly Pro Ala Gly Leu Ala Asp Gly
1 5 10 15
Lys Ile Gly Leu Leu Trp Gln Pro Asn Ser Gly Lys Arg Asp Ser His
20 25 30
Arg Asn His Arg Ala Glu Trp Gly Thr Arg Glu Asp Glu Ile Ala His
35 40 45
Ser Gly Gly Gly His Tyr Tyr Pro Pro Thr Ser His Ser Thr Asp Ser
50 55 60
Leu Ile Leu Asn His Leu Arg Gln Leu
65 70

<210> 32147
<211> 300
<212> PRT
<213> A.fumigatus

<400> 32147
Gly Ile Cys Leu Ile Ile Asn Leu His Ser Tyr His Ile Pro Pro Thr
1 5 10 15
Tyr His Leu Pro Gln Ala Ser Arg Gly Arg Cys Cys Ser Ala Val His
20 25 30
Gln Arg Thr Ile Ile Leu Lys Ser Phe Lys Met Glu Ser Lys Trp Lys
35 40 45
Asp Ile Val Ala Ser Tyr Pro Pro Gln Ala Ile Glu Phe Val Gly Thr
50 55 60
Val Leu Val Gln Val Ile Ser Phe Trp Leu Pro Ser Leu Cys Tyr Leu
65 70 75 80
Ser Leu Asp Ala Leu Phe Pro Ser Phe Ser Gln Arg His Lys Leu Gln
85 90 95
Pro Ala Leu Arg Gln Pro Gly Arg Arg Asp Ile Trp Gln Cys Phe Val
100 105 110
Val Val Val Gln Asn Ser Val Leu Ser Met Gly Leu His Leu Phe Gln
115 120 125

```
Ile Phe Val Leu Gln Arg Gly Thr Ser Ala Phe Arg Ile Gln Ala Ser
    130                 135                 140
Leu Pro Pro Leu Ala Glu Phe Leu Arg Asp Phe Ile Leu Cys Ile Leu
145                 150                 155                 160
Leu Arg Glu Ala Leu Phe Tyr Tyr Ser His Arg Phe Leu His Ser Pro
                165                 170                 175
Phe Phe Tyr Ala Arg Ile His Lys Arg His His Lys Phe Thr Ala Pro
            180                 185                 190
Ile Ala Leu Ala Ala Gln Tyr Ala His Pro Ile Glu His Ile Val Ala
        195                 200                 205
Asn Ser Leu Pro Ile Ser Leu Pro Pro Gln Ile Leu Gly Ser His Ile
    210                 215                 220
Leu Thr Phe Trp Ala Phe Leu Ala Tyr Glu Leu Ala Asn Thr Ala Thr
225                 230                 235                 240
Val His Ser Gly Tyr Asp Phe Phe Lys Asn Lys Ala Lys Met His Asp
                245                 250                 255
Leu His His Glu Lys Phe Asn Leu Asn Tyr Gly Ser Ile Gly Leu Leu
            260                 265                 270
Asp Trp Leu His Gly Thr Asp Lys Leu Glu Lys Lys Arg Lys Asp Val
        275                 280                 285
Phe Thr Thr Gly Gly Ala Gly Ser Ala Leu Lys Tyr
    290                 295                 300
```

<210> 32148
<211> 415
<212> PRT
<213> A.fumigatus

<400> 32148

```
Ser Arg Ile Ser Ile Gly Asp Pro Ala Arg Ser Val Gly Glu Asn Asp
1               5                   10                  15
Asp Asp Arg Glu Ser Asp Ile Leu Asn Asn Ser Glu Ser Leu Leu Gln
            20                  25                  30
Val Gly Ser Arg Arg Arg Leu Gly Ala Leu Leu Val Asp Gly Leu His
        35                  40                  45
Ala Ser Ser Lys Gln Leu Thr Val Leu Gly Arg Asp Asp Gly Val Asn
    50                  55                  60
Gly Arg Thr Lys Asp Leu Asp Thr Glu Gly Phe Lys Leu Ile Leu Glu
65                  70                  75                  80
Leu Asp Thr Asp Leu Lys Gly Gly Leu Thr Thr Lys Cys Asp Ile Asp
                85                  90                  95
Gly Ile Arg Ala Leu Val Leu Asp Asp Leu Ala His Glu Leu Gly Val
            100                 105                 110
Asp Arg Glu Glu Val Asn Leu Ile Arg Lys Thr Leu Gly Ser Leu Asp
        115                 120                 125
Ser Gly Asn Ile Gly Ile Asp Glu Asp Ser Val Asp Ser Phe Phe Leu
    130                 135                 140
Gln Gly Leu Asp Ser Leu Ala Thr Arg Val Val Glu Phe Ser Ser Leu
145                 150                 155                 160
Thr Asn Ala Glu Ala Thr Ala Ser Gln Asp Gln Asn Leu Leu Asp Arg
                165                 170                 175
Asp Thr Trp Arg Cys Leu Asp Val Leu Cys Leu Arg Ser Ala Arg Glu
            180                 185                 190
Arg Asp Arg Leu Leu Lys Ser Ile Arg Arg Gly Lys Ser Val Leu Asp
        195                 200                 205
Ser Val Asp Glu His Ile Glu Glu Val Leu Ser Val Pro Gly Thr Arg
```

```
    210                 215                 220
Ser Ala Phe Gly Met Glu Leu Tyr Thr Glu Glu Arg Ala Ala His Met
225                 230                 235                 240
Pro Asp Thr Leu Ile Ala Ala Ile Val Cys Val Asp Glu Lys Phe Leu
                245                 250                 255
Pro Ala Leu Trp Glu Ser Arg Gly Ile Asp Ser Val Thr Val Ile Leu
            260                 265                 270
Gly Gly Asp Val Ala Leu Ala Arg Gln His Ala Gly Thr Gly Asp Val
        275                 280                 285
Val Thr Ala Val Thr Glu Leu His Leu Glu Arg Leu Gly Thr Asn Gly
    290                 295                 300
Thr Ser Asn Gln Leu Val Ala Gln Ala Asn Thr Lys Asp Arg Ser Ser
305                 310                 315                 320
Gly Leu Leu Gln Gly Leu Gly Gln Ile Val His Ser Phe Arg Glu His
                325                 330                 335
Arg Trp Val Thr Arg Thr Val Arg His Lys Gln Thr Val Val Val Leu
            340                 345                 350
Ala Gly Lys Leu Gly Glu Ile Val Val Pro Arg His Asn Glu Asn Leu
        355                 360                 365
Asn Thr Thr Ser Lys Gln Ala Thr Gln Leu Val Glu Leu His Thr Asn
    370                 375                 380
Val Gln Ala Lys Asp Thr Asn Arg Ala Ala Arg Trp Val Phe Glu Cys
385                 390                 395                 400
Asp Ile Leu Gly Gly Cys Glu Lys Ala Arg Leu Thr Asp Arg Asn
                405                 410                 415
```

<210> 32149
<211> 286
<212> PRT
<213> A.fumigatus

<400> 32149

```
Ser Glu Pro Leu Ala Asn Leu Ser Pro Arg Gly Pro Phe Pro Pro Pro
1               5                   10                  15
Ser Glu Thr Ala Met Pro Gln Ser Ala Gly Asn Asp Glu Val Ala Leu
            20                  25                  30
Pro Ser Ser Pro Leu Ser Gly Gly Ala Val Ser Tyr Asn Gln Ile Asn
        35                  40                  45
Lys Glu Leu Gln Pro Leu Pro Ser Met Asp Ser Gly Asn Gly Ala Val
    50                  55                  60
Ile Pro Pro Ala Ser Ala Arg Val Arg Gly Ser Ser Gly Lys Met Phe
65                  70                  75                  80
Ala Leu Glu Leu Glu Asp Gly Thr Ile Tyr Gln Gly Tyr Ser Phe Gly
                85                  90                  95
Ala Asp Lys Ser Val Ala Gly Glu Leu Val Phe Gln Thr Gly Met Val
            100                 105                 110
Gly Tyr Pro Glu Ser Ile Thr Asp Pro Ser Tyr Arg Gly Gln Ile Leu
        115                 120                 125
Val Ile Thr Phe Pro Leu Val Gly Asn Tyr Gly Val Pro Ser Arg Glu
    130                 135                 140
Thr Met Asp Glu Leu Leu Lys Thr Leu Pro Lys Tyr Phe Glu Ser Thr
145                 150                 155                 160
Glu Ile His Val Ala Ala Leu Val Val Ala Thr Tyr Ala Gly Glu Asp
                165                 170                 175
Tyr Ser His Phe Leu Ala Glu Ser Ser Leu Gly Gln Trp Leu Lys Glu
            180                 185                 190
```

```
Gln Gly Val Pro Ala Met His Gly Val Asp Thr Arg Ala Leu Thr Lys
        195                 200                 205
Arg Ile Arg Glu Lys Gly Ser Met Leu Gly Arg Met Met Leu Ser Lys
    210                 215                 220
Ser Glu Ile Ala Asp Gly Val Val Glu Met Thr Pro Gly Asp Lys Asp
225                 230                 235                 240
Ser Trp Arg Ser Ser Phe Glu Gln Val Glu Trp Val Asp Pro Asn Lys
                245                 250                 255
Lys Asn Leu Val Ser Glu Gly Arg Val Phe Asn Thr Arg Asn Ala Leu
            260                 265                 270
Leu Lys Gly Ser Ile Ser Asp Ile Val Leu Ser Phe Asp Pro
        275                 280                 285
```

<210> 32150
<211> 413
<212> PRT
<213> A.fumigatus

<400> 32150

```
Ser Ser Val Ser Ile Arg Glu Pro Arg Leu Phe Thr Pro Pro Glu Asn
1               5                   10                  15
Val Ala Leu Lys His Pro Ser Gly Arg Pro Val Arg Val Leu Cys Leu
            20                  25                  30
Asp Val Gly Met Lys Phe Asn Gln Leu Arg Cys Leu Leu Ala Arg Gly
        35                  40                  45
Val Glu Val Leu Val Val Pro Trp Asp Tyr Asp Phe Pro Lys Leu Ala
    50                  55                  60
Gly Lys Asp Tyr Asp Gly Leu Phe Val Ser Asn Gly Pro Gly Asp Pro
65                  70                  75                  80
Ala Met Leu Ser Glu Thr Val Asn Asn Leu Ser Lys Thr Leu Lys Glu
                85                  90                  95
Ala Arg Thr Pro Val Phe Gly Ile Cys Leu Gly His Gln Leu Ile Ala
            100                 105                 110
Arg Ser Val Gly Ala Gln Thr Leu Lys Met Lys Phe Gly Asn Arg Gly
        115                 120                 125
His Asn Ile Pro Cys Thr Ser Met Leu Ser Gly Lys Cys His Ile Thr
    130                 135                 140
Ser Gln Asn His Gly Tyr Ala Val Asp Ser Ser Thr Leu Pro Glu Gly
145                 150                 155                 160
Trp Glu Glu Leu Phe Val Asn Ala Asn Asp Gly Ser Asn Glu Gly Ile
                165                 170                 175
Arg His Val Ser Arg Pro Phe Phe Ser Val Gln Phe His Pro Glu Ser
            180                 185                 190
Thr Pro Gly Pro Arg Asp Thr Glu Tyr Leu Phe Asp Val Phe Ile Asn
        195                 200                 205
Thr Ile Lys Asp Thr Leu Thr Ser Ser Asp Ala Leu Gln Lys Pro Val
    210                 215                 220
Ser Phe Pro Gly Gly Thr Lys Ala Glu Asn Ile Lys Thr Ser Pro Arg
225                 230                 235                 240
Val Ser Val Lys Lys Val Leu Ile Leu Gly Ser Gly Gly Leu Ser Ile
                245                 250                 255
Gly Gln Ala Gly Glu Phe Asp Tyr Ser Gly Ser Gln Ala Ile Lys Ala
            260                 265                 270
Leu Lys Glu Glu Gly Ile Tyr Thr Ile Leu Ile Asn Pro Asn Ile Ala
        275                 280                 285
Thr Ile Gln Thr Ser Lys Gly Leu Ala Asp Lys Val Tyr Phe Leu Pro
```

```
    290                 295                 300
Val Asn Ala Glu Phe Val Arg Lys Val Ile Lys His Glu Arg Pro Asp
305                 310                 315                 320
Ala Ile Tyr Val Thr Phe Gly Gly Gln Thr Ala Leu Gln Val Gly Ile
                325                 330                 335
Gln Leu Lys Asp Glu Phe Glu Ser Leu Gly Val Lys Val Leu Gly Thr
            340                 345                 350
Pro Ile Asp Thr Ile Ile Thr Thr Glu Asp Arg Glu Leu Phe Ala Arg
        355                 360                 365
Ser Met Glu Ser Ile Asn Glu Lys Cys Ala Lys Ser Ala Ser Ala Ser
    370                 375                 380
Asn Leu Glu Glu Ala Leu Arg Val Val Glu Asp Ile Gly Phe Pro Val
385                 390                 395                 400
Ile Val Val Phe Thr Asn Arg Pro Gly Arg Ile Pro Asp
                405                 410
```

<210> 32151
<211> 144
<212> PRT
<213> A.fumigatus

```
<400> 32151
Arg Lys Lys Glu Ser Thr Leu Ser Ser Ser Ile Pro Ile Leu Pro Leu
1               5                   10                  15
Ser Arg Leu Pro Arg Val Leu Arg Ile Arg Phe Thr Ser Ser Arg Ser
            20                  25                  30
Thr Pro Ser Ser Cys Ala Arg Ser Ser Ser Thr Ser Ala Leu Met Pro
        35                  40                  45
Ser Met Ser His Leu Val Val Arg Pro Pro Phe Lys Ser Val Ser Ser
    50                  55                  60
Ser Arg Met Ser Leu Asn Pro Ser Val Ser Arg Ser Leu Val Arg Pro
65                  70                  75                  80
Leu Thr Pro Ser Ser Arg Pro Arg Thr Val Ser Cys Leu Leu Glu Ala
                85                  90                  95
Trp Ser Pro Ser Thr Arg Ser Ala Pro Ser Leu Arg Leu Leu Pro Thr
            100                 105                 110
Trp Arg Arg Leu Ser Glu Leu Leu Arg Ile Ser Asp Ser Arg Ser Ser
        115                 120                 125
Ser Phe Ser Pro Thr Asp Leu Ala Gly Ser Pro Ile Glu Ile Arg Glu
    130                 135                 140
```

<210> 32152
<211> 99
<212> PRT
<213> A.fumigatus

```
<400> 32152
Val Leu Val Asp Gly Pro Ser Thr Glu Glu Asn Lys Ile Val Pro Arg
1               5                   10                  15
His Ala Leu Pro Leu Ala His Ala Thr Leu Thr Pro Phe Val Ile Pro
            20                  25                  30
Lys Leu Pro Arg Ala Ala Gly Thr Gly Pro Val Lys Lys Leu Trp Glu
        35                  40                  45
Lys Asn Glu Ile Asp Gly Lys Trp Ala Lys Ser Thr Ile Ala Gln Lys
    50                  55                  60
Thr Glu Arg Ala Glu Arg Arg Lys Asn Leu Thr Asp Phe Glu Arg Phe
```

```
65                  70                  75                  80
Lys Val Leu Arg Leu Lys Lys Gln Val Arg Ser Val Cys Glu Thr Met
                85                  90                  95
Gly Glu Leu
```

<210> 32153
<211> 75
<212> PRT
<213> A.fumigatus

<400> 32153
```
Glu His Gly Pro Phe Ala Arg Gln Lys Gln Ser Ile Tyr Arg Val Ser
1               5                   10                  15
Ala Arg Gln Ser Pro Asn Leu Lys Glu Gln Glu Leu Ile Arg Arg Leu
            20                  25                  30
Gln Ile Leu Phe Val Ile Asn Gln Pro Asp Val Tyr Arg Ser Pro Ser
        35                  40                  45
Ser Asn Thr Trp Met Tyr Val Pro Tyr Gly Ser Phe Asp Ala Val Tyr
    50                  55                  60
Arg Leu His Gln Arg Gly Arg Arg Ile Ser Ala
65                  70                  75
```

<210> 32154
<211> 159
<212> PRT
<213> A.fumigatus

<400> 32154
```
Thr Ala Lys Met Ala Asp Pro Arg Val Glu Glu Leu Pro Asp Glu Glu
1               5                   10                  15
Val Pro Lys Ala Asn Val Glu Asp Ala Gly Ser Asp Ser Glu Ser Glu
            20                  25                  30
Ala Gly Glu Glu Ser Ser Ile Pro Ala Gly Ala Ala Val Thr Ile His
        35                  40                  45
Ser Arg Asn Glu Lys Lys Ala Arg Lys Ala Ile Gly Lys Leu Gly Leu
    50                  55                  60
Lys His Val Pro Gly Ile Thr Arg Val Thr Leu Arg Arg Pro Lys Asn
65                  70                  75                  80
Val Arg Thr Arg Pro Ile Cys Ala Thr Lys Thr Val His Ile Ser Gly
                85                  90                  95
Phe Cys Lys Ala Glu Pro Lys Ser Glu Arg Ala Gly Ala Asn Thr Ser
            100                 105                 110
Ser Ala Asp Pro Leu Arg His Gln Pro Ala Arg Cys Leu Pro Leu Ser
        115                 120                 125
Leu Gln Gln His Leu Asp Val Cys Ala Leu Arg Phe Phe Arg Cys Gly
    130                 135                 140
Leu Ser Ser Ser Pro Thr Gly Pro Pro Asp Gln Arg Ile Glu Val
145                 150                 155
```

<210> 32155
<211> 262
<212> PRT
<213> A.fumigatus

<400> 32155

```
Asn Gln Ser His Gln Asn Arg Phe Gln Arg Ala Asn Thr Phe Gln Phe
1               5                  10                  15
Pro Phe Lys Gly Gly Thr Ser Ser Ile Asp Gly Asn Val Cys Val Ala
            20                  25                  30
Ser Leu Val Asp Thr Lys Asp Val Ile Leu Arg Asn Phe Gly Arg Pro
        35                  40                  45
Val Gln Ala Val Ala Leu Ser Pro Glu Tyr Lys Asn Asp Arg Thr Phe
    50                  55                  60
Leu Ser Gly Gly Arg Ala Gly Asp Leu Ile Leu Thr Thr Gly Gly Arg
65                  70                  75                  80
Val Gly Val Ser Thr Asn Ser Thr Thr Met Gly Gly Ala Ala Ala Ala
                85                  90                  95
Ala Ser Ser Trp Leu Gly Ser Ile Gly Leu Gly Ala Asn Thr Gly Lys
            100                 105                 110
Asp Thr Ile Leu His Ser Gly Glu Gly Ala Ile Ser Thr Ile Lys Trp
        115                 120                 125
Ser Leu Ser Gly Lys Tyr Val Val Trp Val Asn Glu Glu Gly Ile Lys
    130                 135                 140
Ile Met Arg Ser Asn Leu His Leu Asp Ser Ala Asp Ser Glu Leu Ala
145                 150                 155                 160
Trp Lys Arg Ile Ser His Ile Asp Arg Pro Asn Gly Pro Gly Trp Glu
                165                 170                 175
Glu Met Ala Ser Val Trp Arg Ala Arg Ala Glu Trp Val Asp Glu Asp
            180                 185                 190
Ser Leu Arg Trp Glu Asp Asn Val Asn Ser Gln Gln Asp Glu Pro His
        195                 200                 205
Leu Asn Thr Pro Ala Pro Pro Asp Ile Val Ala Met Lys Glu Asn Val
    210                 215                 220
Glu Arg Leu Val Val Gly Trp Gly Gly Thr Val Trp Val Ile Asn Val
225                 230                 235                 240
Tyr Pro Asp Arg Pro Asn Lys Asn Asn Lys Asp Leu Lys Ile Gly Ser
                245                 250                 255
Val Gln Val Ser Thr Met
            260
```

<210> 32156
<211> 266
<212> PRT
<213> A.fumigatus

<400> 32156

```
Glu Phe Asp Glu Ile Ser Ser Val Ile Pro Ala Asp Phe His Pro Ser
1               5                  10                  15
Leu Ser Gln Asp Ile Tyr Glu Glu Ile Leu Gly His Tyr Val Ser Arg
            20                  25                  30
Asp Arg His Arg Phe Ser Glu Leu Leu Asp Thr Trp Pro Phe Thr Leu
        35                  40                  45
Phe Asp Val Asn Ser Val Thr Thr Ala Val Glu Glu Gln Leu Asp Pro
    50                  55                  60
Arg Thr Val Ser Pro Glu Thr Glu Asp Trp Arg Ile Leu Thr Lys Cys
65                  70                  75                  80
Leu Ala Lys Leu Tyr Leu Ala Gly Gly His Tyr Asn Glu Ala Leu His
                85                  90                  95
Cys Tyr Ile Arg Leu Gln Asp Ala Asp Thr Ala Met Ala Leu Ile Lys
            100                 105                 110
Glu His Arg Leu Leu Asp Ala Leu Ser Asp Asp Ile Pro Ala Phe Ile
```

```
        115                 120                 125
Met Ile Arg Val Ser Lys Gln Gln Met Lys Thr Ala Pro Leu Ser Glu
    130                 135                 140
Leu Glu Glu Ile Thr Ala Glu Pro Ile Lys Leu Leu Val Ser Glu Ala
145                 150                 155                 160
Tyr Thr Gly Ile Val Arg Pro Glu Val Val Thr Gln Leu Lys Asp
                165                 170                 175
Ala Asn Arg Leu Leu Phe Leu Tyr Phe Tyr Leu Arg Ala Leu Trp Arg
            180                 185                 190
Gly Glu Ser Leu Pro His Ser Ala Ala Lys Pro Arg Arg Gly His Gly
        195                 200                 205
Ala Arg Val Arg Asp Ala Ala Ser Lys Leu Ala Ala Asp Glu Gly Lys
    210                 215                 220
Ala Leu Val Asp Asn Phe Ala Asp Thr Ala Val Gly Thr Phe Gly Asp
225                 230                 235                 240
Tyr Glu Arg Pro Trp Leu Met Gly Phe Leu Glu Val Tyr His Ala Tyr
                245                 250                 255
Ser Phe Glu His Thr Val Ala Val Leu Arg
            260                 265
```

<210> 32157
<211> 64
<212> PRT
<213> A.fumigatus

<400> 32157
```
Arg Arg Glu Ile Leu Ile Ser Thr Asn Cys Lys Arg Ile Ser Ala Glu
1               5                   10                  15
Leu Phe Phe Arg Ile Asn Ile Asn Asn Ala Lys Leu Gly Phe Gln Ala
            20                  25                  30
Pro Gly Thr Ala Val Cys Ala Arg Thr Lys Asn Ala Val Leu Arg Pro
        35                  40                  45
Leu Phe Arg Asn Ile Leu Phe Leu Gly Leu Asn Ile Cys Lys Asn Ser
    50                  55                  60
```

<210> 32158
<211> 131
<212> PRT
<213> A.fumigatus

<400> 32158
```
Ser Arg His Arg Asp Cys Val Pro Leu Val Asp Leu Leu Gly Ile Ile
1               5                   10                  15
Phe Gln Ile Arg Asp Asp Tyr Gln Asn Leu Gln Ser Asp Leu Tyr Ala
            20                  25                  30
Lys Asn Lys Gly Phe Gly Glu Asp Ile Thr Glu Gly Lys Phe Ser Tyr
        35                  40                  45
Pro Ile Ile His Ser Ile Arg Ser Asp Pro Ser Asn Phe Gln Leu Met
    50                  55                  60
Asn Ile Leu Lys Gln Lys Thr Glu Asp Glu Asp Val Lys Arg Tyr Ala
65                  70                  75                  80
Val Arg Ile Ile Glu Ser Thr Gly Ser Phe Asp His Cys Arg Lys Lys
                85                  90                  95
Leu Ala Asn Leu Thr Ala Glu Ala Arg Glu Ile Leu Lys Asp Phe Gly
            100                 105                 110
Asp Leu Gly Asn Thr Asp Gly Leu Lys Gly Ile Leu Asp Phe Leu Glu
```

```
        115                 120                 125
Leu Lys Gly
    130

<210> 32159
<211> 65
<212> PRT
<213> A.fumigatus

<400> 32159
Ala Met Gln Gln Ser Ser Glu Ser Arg Ser Pro Asn Ile Cys Asp Tyr
1               5                  10                  15
Trp Thr Val Asn Gly Val Gly Thr Lys Glu Phe Arg Asn Ser Ala Arg
            20                  25                  30
Thr Tyr Phe Tyr Ala Leu Ser Leu Thr Glu Glu Ala Gln Gln Lys Tyr
        35                  40                  45
Glu Thr Arg Gly Gln Ser Thr Thr Ala Ser Leu Ser Ser Gln Pro Ser
    50                  55                  60
Arg
65

<210> 32160
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32160
Thr Trp Asp Ser Leu His Ser Pro Phe Tyr Phe Phe Val Val Val Ser
1               5                  10                  15
His Ser Ile Gly Ala Tyr Ser Met Arg Tyr Pro Gly Ile Cys Thr Tyr
            20                  25                  30
Glu Pro Leu Gly Asn Gly Thr Leu Leu His Val Ile Tyr Ile Ile Val
        35                  40                  45
Phe Ser Asp Ser Ile Ile Thr Arg Thr Gly Pro Ile
    50                  55                  60

<210> 32161
<211> 75
<212> PRT
<213> A.fumigatus

<400> 32161
Ser Tyr Val Ile Ala Ala Phe Pro Phe Ser Pro His Asp Pro Asp Asn
1               5                  10                  15
Asn Leu Pro Leu Leu Arg Leu Gln Pro Met Ser Ile Arg Arg Val Ser
            20                  25                  30
Thr Phe Phe Asp Thr Ser Leu Ser Cys Tyr Leu Phe Phe Phe Gly Gln
        35                  40                  45
Ile Phe Ala Ala Val Phe Ala Pro Ala Leu Ser Val Ala Pro Leu His
    50                  55                  60
Phe Asn Ser Leu Gln Ile Arg His Asp Tyr Arg
65                  70                  75

<210> 32162
<211> 177
<212> PRT
```

<213> A.fumigatus

<400> 32162

```
Ala Phe Ala Val Ser Pro Arg Ser Ser Ile Leu Leu Ser Pro Ala Ile
1               5                  10                  15
Tyr Ser Ser Ser Val Arg Ser Ser Leu Gln Phe Leu Pro Gln Arg Tyr
            20                  25                  30
Gln Ser Leu Pro Ser Ile Ser Ile Leu Cys Lys Phe Ala Met Thr Ile
        35                  40                  45
Gly Asp Ile Val Ser Asp Pro Ser Leu Leu Pro Val Leu Arg Thr Cys
    50                  55                  60
Ala Glu Thr Arg Glu Gln Cys Glu Lys Leu Leu Ser Leu Leu Asp Pro
65                  70                  75                  80
Thr Thr Gln Ser Thr Ser Ser Asp Pro Glu Gln Ala Leu Leu Ala Ala
                85                  90                  95
Ser Lys Gln Gln Lys Gln Leu Phe Ala Leu Leu Ala Gln Leu Arg Gly
            100                 105                 110
Gln Ser Arg Asp Ala Ile Leu Arg Val Arg Gln Thr Lys Gln Leu Thr
        115                 120                 125
Ala Glu Ala Arg Gln Glu Ile Asp Arg Leu His Leu Gln Leu Gln Asn
    130                 135                 140
Leu Tyr Tyr Glu Gln Arg His Leu Thr Gly Glu Ile Ala Ala Cys Glu
145                 150                 155                 160
Ser Tyr Glu Tyr Val Asp Arg Cys Leu Thr Phe Ile Gln Pro Pro Cys
                165                 170                 175
Asn
```

<210> 32163
<211> 465
<212> PRT
<213> A.fumigatus

<400> 32163

```
Gln Pro Arg Gly Ala Ala Lys Gln His Ala Arg Arg Val Ala Ala Lys
1               5                  10                  15
Leu Gly Val Ser Ser Gly Leu Ile Tyr Leu Val Gly Gln Pro Thr Ile
            20                  25                  30
Asn Trp Gly Asp Ser Asp Gln Pro Arg Pro Phe Arg Gln Arg Arg Tyr
        35                  40                  45
Phe Tyr Tyr Leu Ser Gly Val Glu Glu Ala Asp Cys Tyr Leu Thr Tyr
    50                  55                  60
Asp Ile Lys Asn Asp Leu Leu Thr Leu Tyr Val Pro Asp Phe Asp Leu
65                  70                  75                  80
His Arg Ala Ile Trp Met Gly Pro Thr Leu Thr Val Lys Glu Ala Arg
                85                  90                  95
Glu Arg Tyr Asp Val Asp Gln Val Arg Tyr His Ala Ser Leu Lys Gly
            100                 105                 110
Asp Ile Gln Arg Trp Ala Asp Asn Tyr Asn Lys Thr Ser Leu Leu Tyr
        115                 120                 125
Ile Leu His Asp Thr Gln Lys Pro Gln Val Leu Ser Asn Glu Leu Arg
    130                 135                 140
Leu Asp Asp Glu Leu Leu Leu Pro Ala Met Asp Ala Ala Arg Gly Ile
145                 150                 155                 160
Lys Asp Glu His Glu Ile Arg Met Ile Arg Glu Ala Asn Arg Val Ser
                165                 170                 175
```

```
Ala Leu Ala His Arg Lys Val Leu Glu Asn Val Leu Arg Met Ser Thr
            180                 185                 190
Glu Ala Glu Ile Glu Gly Leu Phe Leu Asp Thr Cys Ile Ser His Gly
        195                 200                 205
Ala Lys Asn Gln Ala Tyr Glu Ile Ile Ala Gly Ser Gly Glu Asn Ala
    210                 215                 220
Ala Val Leu His Tyr Val Lys Asn Asn Glu Pro Leu Gln Gly Arg Gln
225                 230                 235                 240
Leu Val Cys Leu Asp Ala Gly Ala Glu Trp Asn Cys Tyr Ala Ser Asp
                245                 250                 255
Val Thr Arg Thr Phe Pro Leu Ala Ala Asp Trp Pro Thr Ala Arg Ala
            260                 265                 270
Arg Asp Ile Tyr Gln Leu Val Glu Glu Met Gln Glu Glu Cys Ile Lys
        275                 280                 285
Arg Ile Gln Lys Gly Val Arg Phe Leu Asp Leu Gln Val Leu Ala His
    290                 295                 300
Val Ile Ala Ile Glu Gly Leu Met Arg Leu Gly Ile Leu Lys Gly Gly
305                 310                 315                 320
Ser Val Glu Glu Ile Arg Glu Ser Gly Ala Ser Thr Val Phe Phe Pro
                325                 330                 335
His Gly Leu Gly His His Val Gly Leu Glu Val His Asp Val Ser Ala
            340                 345                 350
Lys Arg Leu Thr Ala Val Glu Gly Asp Lys Glu Tyr Tyr Ser Ser Ile
        355                 360                 365
Leu Val Pro Ser Met Ser His Cys Pro Cys Thr Leu Ser Ala Pro Leu
    370                 375                 380
Leu Glu Glu Gly Met Val Val Thr Val Glu Pro Gly Ile Tyr Phe Ser
385                 390                 395                 400
Arg Leu Ala Leu Ala Asn Ala Arg Lys Leu Ala Phe Ala Lys Tyr Ile
                405                 410                 415
Asn Phe Asp Glu Ala Glu Lys Tyr Ile Pro Ile Gly Gly Val Arg Ile
            420                 425                 430
Glu Asp Asp Ile Leu Val Thr Ser Ser Gly His Glu Asn Leu Thr Thr
        435                 440                 445
Ala Pro Lys Gly Glu Glu Met Leu Glu Ile Ile Arg Arg Gly Ile Asp
    450                 455                 460
Ser
465
```

<210> 32164
<211> 87
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (35),(40),(43),(44),(76)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32164

```
Tyr Asn Leu Ser Ser Lys Ile Val Gly Pro Tyr Gly Met Ile Thr Phe
1               5                   10                  15
Ala Thr Leu Asn Gly Ile Ser Ile Glu Asn Trp Arg Asn Trp Thr Trp
            20                  25                  30
His Tyr Xaa Ala His Leu Val Xaa Glu Phe Xaa Xaa Leu Ser Cys Ser
        35                  40                  45
```

```
Asp Phe Pro Glu Tyr Pro Phe Phe Phe Cys Arg Ser His Thr Thr Phe
    50                  55                  60
Phe Asn Lys Gly Gly Arg Lys Asn Val Ile Thr Xaa Lys Thr Leu Lys
65                  70                  75                  80
Asn Phe Leu Trp Ile Gly Ile
                85
```

<210> 32165
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32165

```
Gly Gly Trp Ile Thr Ile Ala Leu Ile Phe Ala Pro Gly Val Met Thr
1               5                   10                  15
Ile Val Ser Thr Leu Gln Ala Gly Cys Phe Phe Gly Ala Leu Ile Ala
            20                  25                  30
Ser Gln Val Ala Asp Arg Trp Gly Arg Lys Pro Gly Leu Ile Ser Ala
        35                  40                  45
Ser Ile Met Ser Ile Val Gly Val Ile Met Gln Val Ala Ala Ser Gly
    50                  55                  60
His Leu Glu Ala Met Tyr Ile Gly Arg
65                  70
```

<210> 32166
<211> 462
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (119),(126),(132)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32166

```
Pro Arg Ala Pro Leu Pro Pro Cys Val Pro Leu Met Trp Asn His Ala
1               5                   10                  15
Leu Asn Ala Pro Ser Leu Gln Thr Tyr His Arg Leu Arg Cys Arg Phe
            20                  25                  30
Arg Leu Asp Asp Gln Pro Pro Leu Arg Val Gly Glu Arg Ser Ser Cys
        35                  40                  45
His Pro Trp His Ala Asp Arg Ala Val Pro Ala Leu His His His Gly
    50                  55                  60
His His Ala Gly Val Leu Asp Gln Leu Arg Leu Pro Ala Ala His Gln
65                  70                  75                  80
Arg Pro Gly His Val Pro Arg Ala Ala Gly His Ala Gly Pro Pro Arg
                85                  90                  95
His Pro Pro Pro Gly Arg Tyr Ala Pro Val Gln Arg Val Pro Thr Leu
            100                 105                 110
Ala Arg Pro Pro Gly Pro Xaa Gly Ser Arg Ala Arg His Xaa Ser Pro
        115                 120                 125
Ser Ala Pro Xaa Ala Pro His Pro Pro Ile Arg Arg Ala Arg Ile Pro
    130                 135                 140
Gly His Arg Arg Ala Ala Arg Ala Arg Ala Pro Ala His Arg Arg Leu
145                 150                 155                 160
Gly Pro Leu Gly Pro His Ala Arg Asp Val Asp Asp Pro Gly Gln Pro
```

```
                165                 170                 175
Gln Ala Arg Pro His Gln His Leu Pro His Asp Leu Pro Ala Asp Asp
            180                 185                 190
Arg His Gln Arg His Gln Leu Leu Arg Thr Pro Asp Leu Gln Glu Pro
        195                 200                 205
Gly Arg His Arg Gln Arg Asp Arg Pro Leu Arg His Arg Arg Leu Arg
    210                 215                 220
His Arg Gln Gly Arg Arg Leu Arg Arg Leu Pro Arg Phe Arg Arg Arg
225                 230                 235                 240
Leu Pro Arg Pro Pro Pro Leu Pro Pro Val Asp Leu Arg Arg Pro Gly
                245                 250                 255
Pro Asp Asn Ala Leu His Arg Pro Val Arg Pro His Arg Ala Pro Arg
            260                 265                 270
Ser Arg Arg Ala Arg His Pro Arg Arg Leu Arg Arg Pro Arg Leu His
        275                 280                 285
Leu Pro Leu Arg Arg Leu Leu Pro Val Trp Leu Gly Ala Arg Leu Leu
    290                 295                 300
Asp Leu Arg Leu Arg Asp Pro His Arg Pro Pro Ala Arg Pro Glu Arg
305                 310                 315                 320
Leu Leu Arg Cys Arg Tyr Pro Val Ala Leu Gln Leu Cys Cys Arg Pro
                325                 330                 335
Arg Arg Pro Gln Tyr Ala Cys Tyr Arg Arg Cys Glu Trp Leu Trp Val
            340                 345                 350
Pro Leu Ser Leu Ser Leu Pro Gly Asn Pro Leu Arg Tyr Gln Thr Arg
        355                 360                 365
Ala Asn Gly Leu Thr Glu Arg Thr Ser Phe Ser Pro Ala Ser Val Ser
    370                 375                 380
Pro Trp Val Cys Thr Tyr Gly Ser Ser Ser Leu Arg Pro Arg Val Thr
385                 390                 395                 400
Leu Pro Ser Pro Ala Asn Gln Gln Phe Met Leu Met Arg Ile Gly Leu
                405                 410                 415
Ser Leu Glu Lys Met Asp Glu Leu Phe Gly Val Thr Thr Pro Gln Asp
            420                 425                 430
Ser Lys Val Ala Asp Ala Glu Arg Ala Met Ser Ser Thr Asp Lys Glu
        435                 440                 445
Ala Glu Ala Glu Thr Ala Val Glu Thr Arg Val Glu Arg Leu
    450                 455                 460
```

<210> 32167
<211> 345
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (101),(109),(115)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32167

```
Thr Leu Arg Arg Cys Arg Leu Ile Thr Gly Phe Gly Val Gly Phe Ala
1               5                   10                  15
Ser Met Ile Asn Pro Leu Tyr Val Ser Glu Asn Ala Pro Arg Ala Ile
            20                  25                  30
Arg Gly Met Leu Thr Gly Leu Tyr Gln Leu Phe Ile Thr Met Gly Ile
        35                  40                  45
Met Leu Ala Phe Trp Ile Asn Tyr Gly Ser Leu Leu His Ile Ser Gly
```

```
    50                  55                  60
Pro Ala Met Tyr Leu Val Pro Leu Ala Met Gln Ala Leu Pro Ala Ile
65                  70                  75                  80
Leu Leu Leu Val Gly Met Leu Leu Cys Asn Glu Ser Pro Arg Trp Leu
                85                  90                  95
Ala Arg Gln Asp Xaa Trp Glu Ala Ala Arg Ala Thr Xaa Ala Arg Val
            100                 105                 110
Arg His Xaa Pro Pro Thr His Pro Tyr Val Glu Arg Glu Phe Gln Asp
        115                 120                 125
Ile Val Ala Gln Leu Glu His Glu Arg Gln Leu Ile Gly Gly Ser Gly
    130                 135                 140
Pro Trp Asp Leu Met Arg Glu Met Trp Thr Ile Pro Gly Asn Arg Lys
145                 150                 155                 160
Arg Ala Leu Ile Ser Ile Phe Leu Met Ile Cys Gln Gln Met Thr Gly
                165                 170                 175
Thr Asn Ala Ile Asn Tyr Tyr Ala Pro Gln Ile Phe Lys Asn Leu Gly
            180                 185                 190
Val Thr Gly Asn Ala Thr Gly Leu Phe Ala Thr Gly Val Tyr Gly Ile
        195                 200                 205
Val Lys Val Val Gly Cys Ala Val Phe Leu Val Phe Val Ala Asp Ser
    210                 215                 220
Leu Gly Arg Arg Arg Ser Leu Leu Trp Thr Ser Val Ala Gln Gly Leu
225                 230                 235                 240
Thr Met Leu Tyr Ile Gly Leu Tyr Val Arg Ile Ala Pro Pro Val Ala
                245                 250                 255
Gly Glu Pro Val Ile Pro Ala Gly Tyr Val Ala Leu Val Cys Ile Phe
            260                 265                 270
Leu Phe Ala Ala Cys Phe Gln Phe Gly Trp Gly Pro Val Cys Trp Ile
        275                 280                 285
Tyr Val Ser Glu Ile Pro Thr Ala Arg Leu Arg Gly Leu Asn Val Ser
    290                 295                 300
Phe Ala Ala Ala Thr Gln Trp Leu Phe Asn Phe Val Val Ala Arg Ala
305                 310                 315                 320
Val Pro Asn Met Leu Ala Thr Val Gly Ala Asn Gly Tyr Gly Tyr Leu
                325                 330                 335
Ser Leu Ser Leu Ser Pro Glu Ile Pro
            340                 345
```

<210> 32168
<211> 243
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (237),(243)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 32168
His Ala Ser Asp Ile Ser Gly Asp Phe Arg Gly Glu Arg Glu Arg Glu
1               5                   10                  15
Val Pro Ile Thr Ile Arg Thr Asp Gly Ser Lys His Ile Gly Asp Gly
            20                  25                  30
Ala Gly Asp Asn Lys Val Glu Glu Pro Leu Gly Ser Gly Ser Glu Gly
        35                  40                  45
Asp Val Gln Ala Ser Gln Ala Gly Gly Gly Asp Leu Gly Asp Val Asp
```

```
    50                  55                  60
Pro Ala Asp Gly Pro Pro Ala Lys Leu Glu Ala Gly Gly Glu Glu Glu
65                  70                  75                  80
Asp Ala Asp Glu Gly Asp Val Ala Gly Gly Asp Asp Gly Leu Ala Gly
                85                  90                  95
Tyr Gly Gly Arg Asp Ala Asp Val Gln Ala Asp Val Glu His Cys Gln
            100                 105                 110
Ala Leu Gly Asp Gly Gly Pro Gln Glu Gly Ala Ala Ala Ala Glu Gly
        115                 120                 125
Val Gly Asp Glu Asn Glu Glu Asp Gly Ala Ala Asp Asp Leu Asp Asp
    130                 135                 140
Ala Val Asp Ala Gly Gly Glu Glu Ala Gly Arg Val Ala Gly Asp Ala
145                 150                 155                 160
Gln Val Leu Glu Asp Leu Gly Cys Val Val Val Asp Gly Val Gly Ala
                165                 170                 175
Gly His Leu Leu Ala Asp His Glu Glu Asp Ala Asp Glu Gly Ala Leu
            180                 185                 190
Ala Val Ala Arg Asp Arg Pro His Leu Ser His Glu Val Pro Gly Ala
        195                 200                 205
Arg Ala Ala Asp Glu Leu Ala Leu Val Leu Glu Leu Arg Asp Asp Val
    210                 215                 220
Leu Glu Phe Ala Leu Asp Val Trp Val Gly Gly Gly Xaa Val Ala His
225                 230                 235                 240
Ser Gly Xaa
```

Sequence Listing - Page 12568 - Date: 20050124

<210> 32169
<211> 262
<212> PRT
<213> A.fumigatus

<400> 32169

```
Ser Ala Ser Leu Ile Ala Gly Phe Ala Leu Leu Asp Ala Leu Lys Gln
1               5                   10                  15
Pro Ile Ala Gln Trp Asn Gly Met Glu Ile Leu Val Tyr Phe Ala Glu
            20                  25                  30
Leu Met Ala Ala Val His Leu Gly Gly His Leu Pro His Val Ser Phe
        35                  40                  45
Glu Arg His Tyr Phe Asp Arg Tyr Gly Lys Leu Leu Leu Ile Phe Met
    50                  55                  60
Thr Val Gln Glu Ala Leu Gly Leu Leu Ser Leu Tyr Arg Ile Thr Thr
65                  70                  75                  80
Thr Ser Asp Thr Ser Ser Gln Ala Arg Gln Pro Gly Gln Ser Pro Asp
                85                  90                  95
Ala Ser Ala Pro Gly Ser Pro Ser Leu Gly Ser Val Arg Pro Glu Gln
            100                 105                 110
Pro Ser Ser Ser Phe Ser Ser Ser Glu Pro Pro Val Pro Pro Leu Ser
        115                 120                 125
Phe Ser Ser Thr Ala Ala Gly Ser Ser Phe Met Thr Gln Pro Pro Glu
    130                 135                 140
Ala Gln Tyr Gln Leu Ala Phe Pro Asn Gln Asn Gln Gly Leu Lys Arg
145                 150                 155                 160
Asp His Ser Phe Thr Leu Asn Ser Leu Lys Asp Asn Glu Ser Asp Phe
                165                 170                 175
Ser Asp Ala Tyr Asp Arg Asp Ser Asp Thr Glu Thr Thr Val Thr Thr
            180                 185                 190
```

```
Ala Thr Thr Ala Thr Ser Asn Thr Val Arg Asn Ile Arg Tyr Gly Arg
        195                 200                 205
Asn Pro Thr Asp Ala Phe Phe Ser Pro Arg Arg Ser Glu Leu Gly Pro
    210                 215                 220
Gly Ile Gly Gly Leu Ser Leu Asp Asp Lys Pro Thr Arg Arg Val Thr
225                 230                 235                 240
Arg Ser Gln Ser Gln Arg Leu Ala Gly Asn Glu Gly Ile Arg Lys Tyr
                245                 250                 255
Ser Met Arg Gly Leu Lys
            260
```

<210> 32170
<211> 74
<212> PRT
<213> A.fumigatus

<400> 32170

```
Pro Cys Ser Cys Leu Gly Val Thr Val Lys His Leu Tyr Asn Glu Arg
1               5                   10                  15
Asn Gly Ser Ile Glu Arg Trp Arg Ser Ser Arg Asn Leu Arg Lys Gln
            20                  25                  30
Arg Asp Phe Ile Ala Arg Gly Phe Ser Ala Phe Leu Phe Leu Ser Ser
        35                  40                  45
Pro Gln Leu Thr Leu Ala Ser Phe Ile Ser Ser Leu Ala Ala Thr Tyr
    50                  55                  60
Arg Ala Val Gly Asp Ala Phe Asp Leu Leu
65                  70
```

<210> 32171
<211> 82
<212> PRT
<213> A.fumigatus

<400> 32171

```
Asp Leu Ala Ile Gly Ser His Phe Thr Met Val Glu Leu Gln Pro Ile
1               5                   10                  15
Phe Lys Lys Ala Tyr Trp Thr Leu Ala Ala Gly Gly Leu Val Tyr Val
            20                  25                  30
Ser Phe Ile Cys Ala Leu Thr Trp Pro Asn Val Gln Arg Leu Tyr Ala
        35                  40                  45
Leu Leu Ile His Ile Ser Thr Asn Ala Thr Thr Asn Asp Ser Gly Ala
    50                  55                  60
Met Arg Ile Ala Pro Cys Met Arg Thr Lys Ser Thr Leu Leu Cys Gly
65                  70                  75                  80
Arg Met
```

<210> 32172
<211> 391
<212> PRT
<213> A.fumigatus

<400> 32172

```
Val Arg Gly Lys Ala Gln Leu Ser Met Glu Trp Ser Leu Leu Thr Trp
1               5                   10                  15
Pro Glu Thr Gln Val Gln Pro Phe Asn Leu Val Thr Pro Asp Asn Asp
```

```
            20                  25                  30
Thr Ile Tyr Gly Trp His Leu Leu Pro Leu His Leu Cys Arg Glu His
        35                  40                  45
Glu Glu Glu Leu Asn Ala Asn Glu Pro Ser Gly Pro Ala Asp Asp Tyr
    50                  55                  60
Thr Gln Thr Pro Ala Phe Lys Phe Leu Ala His Asp Pro Asn Ala Arg
65                  70                  75                  80
Val Val Val Asn Cys Lys Arg Thr Gly Tyr Phe Ala Cys Asp Thr Ile
                85                  90                  95
Met Met Cys Thr Leu Thr Asn Leu Cys Ser Thr Ala Val His Gly Asn
            100                 105                 110
Ala Ala His Leu Gly Ser Ala Gln Arg Pro Glu Ile Tyr Arg Met Leu
        115                 120                 125
Leu Gly Leu Ser Ser Pro Ser Asn Pro Val His Val Phe Thr Ile Asp
    130                 135                 140
Tyr His Gly Tyr Gly Val Ser Thr Gly Ser Pro Thr Glu Glu Gly Leu
145                 150                 155                 160
Ile Thr Asp Gly Val Ser Leu Ile Asn Phe Leu Thr Ala Gly Pro Leu
                165                 170                 175
Asn Ile Pro Pro Ser Arg Ile Val Ile Ala Gly Gln Ser Leu Gly Thr
            180                 185                 190
Ala Val Ser Ala Ala Val Ala Glu Arg Tyr Ala Phe Gly Ser Pro Asp
        195                 200                 205
Pro Ala Ala Val Gln Pro Ala Ile Asn Asp Pro Glu Pro Phe Ala Gly
    210                 215                 220
Val Val Leu Leu Ala Ser Phe Ser Asn Met Arg Asn Leu Ile Glu Ser
225                 230                 235                 240
Tyr Ser Phe Lys Gly Leu Thr Pro Pro Met Leu Ser Pro Leu Ile Gly
                245                 250                 255
Tyr Pro Arg Val Gln Arg Trp Val Arg Ser His Ile Val Asp His Trp
            260                 265                 270
Asp Thr Ala Ala Arg Leu Ala Arg Leu Thr Gly Val Gly Pro Ser Ala
        275                 280                 285
Glu Glu Asp Ala Lys Ala Gly Tyr Asn Ser Lys Asn Leu Asp Leu Ala
    290                 295                 300
Ile Ile His Ala Phe Asn Asp Val Glu Ile Pro Trp Tyr Glu Gly Arg
305                 310                 315                 320
Ser Val Trp Ile Ala Ala Thr Gly Glu Asn Gln Lys Asp Ala Pro Gly
                325                 330                 335
Thr Leu Ala Tyr Gln Lys Lys Glu Glu Gly Gly Pro Thr Glu Val Lys
            340                 345                 350
Ile Trp Glu Asn Arg Ser Gly Lys His Ala Val Lys Thr Val Arg Trp
        355                 360                 365
Glu Arg Val Gly Tyr Gly Gly Met Ser Gln Ile Arg Phe Asn Val Leu
    370                 375                 380
Val His Arg Glu Arg Tyr Asn
385                 390
```

<210> 32173
<211> 67
<212> PRT
<213> A.fumigatus

<400> 32173

```
Tyr Leu Trp Glu Val Gly Gly Gly Arg Arg Ser Val Thr His Ser Arg
1               5                   10                  15
```

```
Thr His Asn Leu Leu Met Ile Arg Ile Ser Phe Phe Leu Pro Leu Asn
            20                  25                  30
Phe Tyr Thr Leu Lys Ile Leu Gly His Phe Asp Ile Val Asn Thr Val
        35                  40                  45
Pro Thr Pro Ile Pro Phe Pro Phe Ile Ser Ser Met Ala Pro Pro Val
    50                  55                  60
Val Val Ala
65
```

<210> 32174
<211> 276
<212> PRT
<213> A.fumigatus

<400> 32174

```
Leu Phe Asp Val Lys Asp Thr Gly Ser Lys Pro Phe Val Cys Lys Glu
1               5                   10                  15
Cys Arg Arg Pro Phe Ala Arg Gln Asp Ala Leu Thr Arg His Glu Lys
            20                  25                  30
Leu His Thr Arg Ala Thr Ser Ser Thr Pro Thr Ile Lys Val Thr Gln
        35                  40                  45
Gly Asp Thr Ala Ile His Leu Pro Pro Gln Thr Thr Ala Ser Asp Ala
    50                  55                  60
His Thr Trp Asp Ser Thr Arg Ala Val Thr Asp Asp Ala Ala Leu Asn
65                  70                  75                  80
Pro Ala Pro Ser His Thr Trp Asn Thr Pro Pro Ser Gly Gln Gln Ser
                85                  90                  95
Gly Phe Gln Gln Ala Ala Ser Asp Leu Asp Phe Ser Leu Ile Trp Pro
            100                 105                 110
Asp Ser Glu Asn Leu Phe His Ser Ile Met Ser Ser Asp Thr Thr Glu
        115                 120                 125
His Trp Gln Met Pro Leu Gly Thr Leu Pro Phe Pro Pro Val Val Gln
    130                 135                 140
Asp Val Ser Thr Ile Asn Phe Gly Ser Pro Asn Ser Phe Asp Asp Arg
145                 150                 155                 160
Ser Ser Ser Ile Gly Ala Ile Pro Ser Gly Gly Ser His Gln Ala Val
                165                 170                 175
Arg Asp Val Thr Glu Met Val Thr Ser Ser Val Ser Ile Leu Thr Val
            180                 185                 190
Phe Leu Val Phe Ala Glu Asp Leu Ile Val Leu Gln Ser Ser Ser Val
        195                 200                 205
Thr Ala Ala Ile Lys Ala Thr Ser Ile Thr Ser Val Phe Leu Asp Glu
    210                 215                 220
Cys Leu His Met Phe Phe Val Arg Phe Ile Pro Thr Phe Pro Ile Leu
225                 230                 235                 240
His Arg Ala Thr Phe Val Phe Arg Glu Cys Thr His Pro Leu Leu Leu
                245                 250                 255
Asn Ala Met Ala Leu Gly Ser Leu Tyr Leu Gly Pro Lys Asp Ser Val
            260                 265                 270
Ala Lys Val Thr
        275
```

<210> 32175
<211> 93
<212> PRT
<213> A.fumigatus

<400> 32175
Cys Gly Ala Ser Cys Cys Ser Val Asp Ser Lys Pro Ser Thr Ala Glu
1 5 10 15
Thr Gly Phe Phe Ser Ala Leu Ser Phe Leu Asp Lys Val Met Ile Gly
20 25 30
Ser Ser Ala Ser Cys Trp Lys Pro Gln Trp Ser Gln Met His Val Ala
35 40 45
Lys Ile Arg Leu Glu Ala Arg Ser Cys Ser Val Gln Thr Tyr Ser Gly
50 55 60
Asn Gln Gly Thr Pro Leu Cys Lys Glu Ile Tyr Val Gln Ile Phe Asp
65 70 75 80
Thr Asn Leu Thr Asp Glu Gly Leu Phe Leu Glu Arg Val
85 90

<210> 32176
<211> 186
<212> PRT
<213> A.fumigatus

<400> 32176
Pro Thr Pro Ser Phe Asp Ala Val Tyr Ala Ile Glu Ala Thr Val His
1 5 10 15
Ala Pro Asp Leu Glu Gly Val Tyr Lys Glu Ile Phe Arg Val Leu Lys
20 25 30
Pro Gly Gly Val Phe Gly Val Tyr Glu Trp Leu Met Thr Asp Ala Tyr
35 40 45
Asp Asn Asp Asn Pro Glu His Arg Arg Ile Arg Leu Gly Ile Glu Leu
50 55 60
Gly Asp Gly Ile Ser Asn Met Val Lys Val Ser Glu Gly Leu Thr Ala
65 70 75 80
Phe Lys Asn Ala Gly Phe Glu Leu Leu His Asn Glu Asp Leu Ala Asp
85 90 95
Arg Pro Asp Ala Ile Pro Trp Tyr Tyr Pro Leu Ala Gly Ser Phe Lys
100 105 110
His Met Thr Ser Pro Trp Asp Phe Phe Thr Ile Ala Arg Met Thr Trp
115 120 125
Trp Gly Arg Gly Ile Ala His Arg Phe Cys Gly Ala Met Glu Thr Ile
130 135 140
Gly Leu Phe Pro Lys Gly Thr Gln Lys Thr Ala Asp Ser Leu Ala Ile
145 150 155 160
Ala Gly Asp Cys Leu Val Ala Gly Gly Glu Lys Lys Leu Phe Thr Pro
165 170 175
Met Tyr Leu Met Val Gly Arg Lys Pro Glu
180 185

<210> 32177
<211> 68
<212> PRT
<213> A.fumigatus

<400> 32177
Ser Thr Gly Thr Met Asp Leu Met Arg Ser Arg Gly Met Asn Ile Arg
1 5 10 15
Arg Trp Met Asp Leu Ser Leu Pro Ser Gln Gly Asn Val Ser Val Ser
20 25 30

Tyr Ile Thr His Asp Pro Ala Pro Thr Tyr Ile Pro Ser Ser Val Gly
35 40 45
Asp Glu Gly Lys Phe Ala His Pro Ile Thr Ser Phe Pro Ser Leu Leu
50 55 60
Ser Ser Ser His
65

<210> 32178
<211> 277
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (216)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32178
Leu Val Ala Thr Met Thr His Glu Ser Glu Val Thr Pro Pro Val Pro
1 5 10 15
Ile Ser Asp Glu Tyr Tyr Asp Leu Gly Ala Phe Gly Arg Lys Ile Thr
20 25 30
Thr Ser Ser Ala Asp Thr Gln Ala Trp Phe Asp Arg Gly Leu Ser Trp
35 40 45
Ala Tyr Ala Phe Asn His Val Glu Gly Ala Tyr Cys Phe Glu Gln Ala
50 55 60
Ile Ala His Asp Pro Ser Cys Ala Ile Ala Tyr Trp Gly Leu Ala Tyr
65 70 75 80
Ala Val Gly Pro Asn Tyr Asn Lys Pro Trp Glu Arg Phe Asp Lys Asp
85 90 95
Asp Leu Lys Ile Cys Met Lys Arg Ala Tyr Glu Ala Ser Arg Lys Ala
100 105 110
Lys Glu His Ala Ser Asn Ala Thr Pro Ile Glu Gln Gly Leu Ile Glu
115 120 125
Ala Ile Gln Ser Arg Phe Gln Ser Ala Ser Pro Pro Gln Thr Ala Glu
130 135 140
Glu Gln Ser Ala Leu Asn His Ala Tyr Ala Thr Ala Met Lys Pro Val
145 150 155 160
Tyr Gln Ala Phe Gly Asp Asp Leu Asp Val Ala Ala Leu Tyr Ala Asp
165 170 175
Ala Leu Met Asn Gln Thr Pro Trp Ala Leu Trp Asn Leu Phe Thr Gly
180 185 190
Glu Pro Asn Pro Lys Ala Ala Thr Met Glu Val Glu Glu Val Leu Glu
195 200 205
Arg Ala Leu Thr Gln Lys Glu Xaa Glu Asn Thr Arg Gly Cys Cys Thr
210 215 220
Ser Ile Ser Thr Thr Leu Lys Cys Arg Gln Ile Pro Lys Phe Gly Val
225 230 235 240
Asn Val Ala Glu Gln Leu Arg Asp Leu Met Pro Asp Ala Ser His Ile
245 250 255
His His Met Pro Ser His Leu His Phe Leu Ile Arg Asp Gly Gly Pro
260 265 270
Ser Ile Gly Phe Gln
275

<210> 32179

<211> 215
<212> PRT
<213> A.fumigatus

<400> 32179
Leu Ser Ala Tyr His Cys Leu Cys Ala Val Met Pro Arg Ile Asp Thr
1 5 10 15
Val Ala Ile Ile Gly Ala Gly Pro Ser Gly Leu Ala Leu Ala Leu Ala
20 25 30
Leu His Lys Gln Ser Ile Ala Cys Thr Leu Tyr Glu Ala Arg Ala Ser
35 40 45
Ala Leu Asp Ile Gly Gly Ala Met Met Leu Cys Pro Asn Gly Leu Arg
50 55 60
Ile Leu Asp Ser Leu Gly Val Tyr Ser Arg Ile Arg Pro Glu Gly Tyr
65 70 75 80
Glu Phe Asp Lys Leu Tyr Phe Arg Ser Pro Asp Asp Gln Pro Met Asp
85 90 95
Thr Tyr Glu Phe Gly Gly Val Glu Gln Tyr Gly Tyr Arg Ala Met Arg
100 105 110
Ile Tyr Arg His Val Leu Ile Arg Glu Leu Ser Ala Met Val Arg Glu
115 120 125
Ala Gly Ile Pro Ile Glu Tyr His Lys Lys Phe Val Arg Val Leu Ala
130 135 140
Glu Thr Glu Lys Asp Ile Thr Trp Glu Phe Ser Asp Gly Ser Thr Ala
145 150 155 160
Thr Ala Thr Cys Val Val Gly Ala Asp Gly Ile His Ser Arg Val Arg
165 170 175
His Tyr Leu Tyr Pro Gly Leu Glu Pro Ser Phe Thr Lys Met Val Ile
180 185 190
Val Ala Ala Ala Val Pro Thr Ser Gln Leu Gln Val Pro Ser Ser Tyr
195 200 205
Asn Leu Pro Val Thr Ile Leu
210 215

<210> 32180
<211> 139
<212> PRT
<213> A.fumigatus

<400> 32180
Ala Ala Asp His Ser Ile Thr His Gln Asn Glu Pro Ser Leu Ala Thr
1 5 10 15
Gly Leu Leu Asn Ser Pro Leu Pro Tyr Thr Val Phe Ser Thr Ala Arg
20 25 30
Thr Leu Leu Ser Ser Met Thr Val Val Arg Pro Met Ser Arg Met Met
35 40 45
Lys Arg Met Leu Ser Leu Arg Thr Lys Pro Leu Gln Phe Pro Pro Ala
50 55 60
Gln Cys Ala Pro Pro Ile Pro Gln His Glu Leu Val Asp Glu Glu Ala
65 70 75 80
Ser Pro Ala Tyr Asn Pro Lys Tyr Phe Tyr Pro Ala Lys Pro Gly Glu
85 90 95
Leu Leu Ala Asn His Tyr Gln Leu Leu Val Lys Ile Gly Trp Gly Thr
100 105 110
Arg Ser Thr Thr Trp Leu Ala Lys Asp Ile Thr Arg Tyr Thr Pro Asp
115 120 125

Phe Val Ser Val Met Pro Thr Ala Ile Ile Val
130 135

<210> 32181
<211> 120
<212> PRT
<213> A.fumigatus

<400> 32181
Glu Val Val Phe Arg Tyr Arg Trp Gln Pro Glu Arg Phe Val Thr Leu
1 5 10 15
Lys Ile Ile Asn Asn Arg Ser Leu Asp Glu Ala Tyr Arg Glu Arg Asp
20 25 30
Ile Glu Glu His Ile Ser Arg Gln Asn Pro Ser His Arg Gly Arg Ala
35 40 45
Ile Ile Arg Thr His Leu Asp Ser Phe Glu Val Thr Ser Ser Glu Gly
50 55 60
Ser His Leu Cys Leu Ala Tyr Glu Pro Met Arg Glu Pro Leu Trp Ile
65 70 75 80
Leu Gln Lys Arg Phe Val Asp Gln Arg Leu Pro Leu Pro Ile Ala Lys
85 90 95
Ala Tyr Leu Leu Ile Leu Leu Ala Gly Leu Asp Tyr Leu His Ser Glu
100 105 110
Cys Gly Val Val His Thr Gly Arg
115 120

<210> 32182
<211> 126
<212> PRT
<213> A.fumigatus

<400> 32182
Ser Phe Trp Phe Met Leu Asp Leu Lys Leu Asp Asn Ile Leu Met Thr
1 5 10 15
Phe Glu Asn Glu Asp Val Leu Pro Asn Phe Leu Lys Val Gln Ile Asn
20 25 30
Ser Met Pro Met Gln Tyr Lys Thr Glu Ser Val Thr Arg Arg Thr Ile
35 40 45
Tyr Arg Cys His Asn Asp Phe Gly Pro Leu Asp Trp Arg Glu Leu Arg
50 55 60
Lys Met Val Pro Lys Ile Val Asp Phe Gly Leu Ala Thr Ser Leu Lys
65 70 75 80
Ser Asp Ser Gln Gly Gln Gly Gly Lys Ser Glu Leu Gly Leu His Pro
85 90 95
Ile Gln Pro Asp Gln Tyr Arg Ala Pro Glu Val Ile Leu Gly Cys Gly
100 105 110
Trp Ser Phe Ser Ala Asp Ile Trp Asn Phe Gly Val Leu Val
115 120 125

<210> 32183
<211> 138
<212> PRT
<213> A.fumigatus

<400> 32183
Thr Val Ser Ser Ser Pro Ile Glu Met Ser Arg Ile Gln Val Ile Phe

```
1               5                   10                  15
Phe Ile Leu Ser Gln Gln Thr Ile Ser Met Leu Ser Leu Tyr Arg Cys
            20                  25                  30
Thr Ser Cys Asn Glu Leu Ile Gln Pro Thr Lys Ala Arg Leu Ser Cys
        35                  40                  45
Ala Ser Cys Ala Pro Arg Leu Thr Leu Cys Ala Asn Cys Tyr Val Val
    50                  55                  60
Gln Asn Tyr Pro Leu Gln His Gln Glu Asn Pro Ser His Ser Ile Leu
65                  70                  75                  80
Leu His Ala Lys Ser Gly Phe Ile Pro Ile Pro Pro Pro Pro Pro Pro
                85                  90                  95
Pro Gln Ser Gln Ser Val Arg Ser Pro Tyr Val Pro Ala Gln Arg Arg
            100                 105                 110
Pro Ile Pro Ile Ser Asn Arg Asp Ser Asn Thr Pro Pro Arg Lys Pro
        115                 120                 125
Pro Arg Pro Thr Asn Pro Glu Gln Arg Asn
    130                 135
```

<210> 32184
<211> 82
<212> PRT
<213> A.fumigatus

<400> 32184

```
Gln Ala Arg Ser Tyr Asn Val Ile Leu Gln Arg Gly Leu Lys Ser Thr
1               5                   10                  15
Tyr Leu Ile Arg Trp Val Ala Asp Met Glu Gly Ala Ile Leu Ala Ser
            20                  25                  30
Val Asn Cys Ile Gly Pro Tyr Phe Phe Phe Cys Ile Leu Ser Asp Pro
        35                  40                  45
Ala Met Leu Arg Tyr Val Leu Val Val Asp Arg Glu Phe Asn Phe Gly
    50                  55                  60
Pro Gln Leu Leu Gln Ser Thr Asn Ala Ser Ser Gly Val Ser Ile Gln
65                  70                  75                  80
Ile Ser
```

<210> 32185
<211> 337
<212> PRT
<213> A.fumigatus

<400> 32185

```
Ala Ser Ile Met Ser Leu Asp Pro Ser Val Val Pro Ser Ser Thr Ser
1               5                   10                  15
Ser Pro Ser Leu Ile Ser Val Pro Asp Thr Pro Thr Asp Pro Ser Ser
            20                  25                  30
Gly Pro Phe Thr His Ser Thr Thr Pro Pro Ser Glu Ala Pro Leu Arg
        35                  40                  45
Asn Pro Pro Arg Pro Gln Ile Asn Glu Ala Gln Ala Thr Gln Ser Ala
    50                  55                  60
Thr Met Ala Asp Pro Asn Asp Asn Ser Asn Ala Gly Leu Asp Thr Lys
65                  70                  75                  80
His Glu Val Glu Pro Ser Ile Asp Asn Asn Gly Val Lys Thr Glu Ala
                85                  90                  95
Lys Pro Ser Val Ser Val Thr Glu Ser Thr Ser Val Lys Ile Ala Cys
```

```
            100                 105                 110
Lys Lys His Ser Gly Lys Glu Ser Asn Ala Ala Gly Arg Lys Arg Asp
        115                 120                 125
Ser Lys Lys Lys Ser His Lys Ser Ile Ser Thr Pro Asp Glu Asp Thr
    130                 135                 140
Ser Ser Ala Ser Thr Ser Ser Ser Gly Ser Cys Ser Val Ser Glu Ser
145                 150                 155                 160
Gly Ser Gln Asp Asp Glu Thr Ser Ser Ser Ser Cys Glu Ser Glu Thr
                165                 170                 175
Ser Arg Lys Asn Arg Ser Asn Arg Ser Lys Asn Lys Ala Lys Lys Ile
            180                 185                 190
Leu Lys Gly Asn Arg Lys Arg Lys Ser Arg Ser His Gln Gln Val Ala
        195                 200                 205
Ser Asp Thr Asp Thr Thr Ser Asp Asp Ile Gly Asp Asp Asp Glu Pro
    210                 215                 220
Leu Asp Glu Lys Thr Leu Arg Arg Leu Leu Ala Arg Leu Gln Thr Lys
225                 230                 235                 240
Arg Gly Ala Lys Lys Leu Arg Thr Lys Gly Glu Ser Ser Glu Asp Gln
                245                 250                 255
Pro Glu Glu Asp Val Glu Ala Asn Ser Glu Glu Leu Ala Leu Leu Leu
            260                 265                 270
Ala Lys Glu Leu Ala Ala Leu Ser Leu Lys Leu Gly Asp Gly Arg Lys
        275                 280                 285
Leu Asn Asp Gly Arg Arg Gly Lys Thr Arg Gly Lys Arg His Ala Ala
    290                 295                 300
Asp Gly Leu Thr Asp Gly Gln Lys Gly Asn Leu Gln Lys Ser Lys His
305                 310                 315                 320
Lys Leu Lys Ala Ala Ser Lys Met Ala Phe Lys Arg Val Asp Gln Cys
                325                 330                 335
Glu
```

<210> 32186
<211> 360
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (355)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32186

```
Gly Arg Asp Met Leu Thr Phe Ser Ser Leu Leu Val Trp Asp Asn Thr
1               5                   10                  15
Ile His Asn Tyr Lys Leu Thr Glu Thr Val Asp Asp Thr Gly Ala Asn
            20                  25                  30
Glu Trp Asp Gln Tyr Ile Phe Thr Val Arg Arg Lys Phe Asp Trp Glu
        35                  40                  45
Asn Lys Tyr Leu Glu Thr Val Val Asp Ile Lys Ser Lys His Leu Arg
    50                  55                  60
Asp Ala Leu Ala Lys Ile Met Asp Gly Val Lys Gly Val Ser Leu Val
65                  70                  75                  80
Gln Glu Thr Ala Val Val Asp Pro Asn Met Leu Phe Leu Tyr Leu Glu
                85                  90                  95
Glu Thr Arg Ala Tyr Met Lys Glu Leu Lys Gln Gln Ala Lys Lys Glu
```

```
            100                 105                 110
Thr Lys Lys Lys Ala Lys Lys Leu Ala Asp Leu Lys Ala Ala Gln Leu
        115                 120                 125
Lys Val Leu Val Lys Tyr Leu Asp Thr Asp Tyr Ala Glu Thr Lys Lys
    130                 135                 140
Thr Leu Tyr Pro Leu Leu Glu Ala Asn Met Ile Thr Phe Asp Leu Leu
145                 150                 155                 160
Trp Ala Leu Tyr Lys Pro Asn Thr Ile Ala Tyr Thr Ser Thr Tyr Gly
                165                 170                 175
Asn Gln Asp Glu Pro Arg Ala Phe Lys Ile Glu Tyr Ala Thr Lys Glu
            180                 185                 190
Ser Ser Phe Met Lys Gly Gln Trp Tyr Ser Ile Glu Gly Arg Tyr Leu
        195                 200                 205
Glu Tyr Asp Gly Lys Ser Phe Gly Met Gly Thr Met Ala Ala Glu Val
    210                 215                 220
Glu Phe Phe Lys Gly Val Arg Lys Ile Thr Ser Leu Gly Cys Tyr Pro
225                 230                 235                 240
Leu Lys Tyr His Arg Glu Ala Glu Glu Val Asn Ala Lys Leu Ile Glu
                245                 250                 255
Arg Gly Lys Lys Phe Val Ala Leu Cys Gly Met Asn Tyr Arg Phe His
            260                 265                 270
Lys Gly Met Ala Phe Tyr Lys Lys Lys Arg Thr Ile Ile Lys Val Asn
        275                 280                 285
Ile Asn Gly Arg Val Met Val Asp Pro Ala Ile His Arg Arg Ile Asn
    290                 295                 300
Pro Asn Tyr Pro Ile Ser Thr Val Arg Pro Lys Asp Pro Asp Ile Leu
305                 310                 315                 320
Gly Ala Ser Asp Asp Lys Pro Ser Glu Asp Gly Cys Lys Cys Gly Met
                325                 330                 335
Ser Asp Ser Asp Val Asp Gln Gln Gln Pro Lys Ser Arg Asp Ser Asp
            340                 345                 350
Asn Pro Xaa Ile Leu Tyr Lys Val
        355                 360
```

<210> 32187
<211> 141
<212> PRT
<213> A.fumigatus

<400> 32187

```
Thr Ser Lys Phe Ser Arg Ser Thr Leu Val Ser Leu Arg Ile Arg Leu
1               5                   10                  15
Arg Ile Arg Ser Arg Cys Ala Ala Gly Gly Arg Val Thr Gly Asn Phe
            20                  25                  30
Leu Gly Ile Arg Leu Arg Ile Ala Ser Ser Ile Ser Trp Ile Arg Phe
        35                  40                  45
Val Ala Pro Arg Thr Thr Thr Arg Cys Gly Ser Pro Arg Glu Phe Ala
    50                  55                  60
Glu Val Arg Pro Ser Gln Trp Val Met Asn Ser Ala Leu Thr Met Pro
65                  70                  75                  80
Leu Ala Ser Cys Ser Pro Leu Arg Arg Val Pro Ser Thr Ala Ser Ile
                85                  90                  95
Ser Ser Met Lys Thr Ile Glu Gly Cys Ser Leu Arg Ala Asn Glu Lys
            100                 105                 110
Thr Ala Leu Thr Ser Leu Phe Glu Ser Pro Tyr His Phe Ser Val Lys
        115                 120                 125
```

```
Val Glu Ile Trp Arg Phe Met Lys His Ala Pro Leu Ser
    130                 135                 140

<210> 32188
<211> 179
<212> PRT
<213> A.fumigatus

<400> 32188
Leu Ala Glu Tyr Asn Ile Ile Phe Val Leu Pro Glu Met Pro Lys Arg
1               5                  10                  15
Lys Ala Thr Gly Arg Leu Ser Gly Gln Ala Gly Ser Asp Gly Ala Asn
            20                  25                  30
Ala Met Gln Val Asn Gly Asn Asp Ala Gly Gln Arg Glu Asn Glu Arg
        35                  40                  45
Pro Ala Lys Arg Ala Arg Gly Arg Pro Arg Ser Lys Ser Val Glu Ser
    50                  55                  60
Lys Pro Pro Ala Glu Thr Lys Arg Asn Ser Thr Val Ala Gln Ala Gln
65                  70                  75                  80
Ala Pro Asp Ser Gly Pro Lys Lys Ala Ser Lys Arg Gly Arg Pro Lys
                85                  90                  95
Gly Ser Arg Asn Ser Ala His Gly Ala Thr Gln Glu Gly Pro Glu Arg
            100                 105                 110
Lys Gly Gly Asn Glu Lys Ile Lys Asp Glu Val Gly Val Glu Glu Phe
        115                 120                 125
Glu Ser Leu Ala Ala Ser Asp Asp Glu Leu Asp Gly Ala Pro Val Ala
    130                 135                 140
Thr Lys Thr Asn Gln Lys Ala Lys Ser Ala Lys Pro Ala Ala Thr Arg
145                 150                 155                 160
Gly Arg Lys Lys Val Ser Ala Gly Lys Gln Val Gln Thr Asp Gly Glu
                165                 170                 175
Phe Glu Tyr


<210> 32189
<211> 377
<212> PRT
<213> A.fumigatus

<400> 32189
Ser Ala Ser Ala Tyr Phe Leu Ile Arg Tyr Leu Leu Ser Arg Leu Asp
1               5                  10                  15
Phe Asp Pro Glu Ser Gln Lys Lys Glu Glu Gln Arg Arg Lys Ser Ala
            20                  25                  30
Ala Ile Leu Arg Lys Leu Asp Gly Gly Glu Glu Ser Asp Gly Asp Ser
        35                  40                  45
Pro Arg Arg Gly Ala Lys Lys Ala Arg Arg Gln Arg Arg Gly Asp Leu
    50                  55                  60
Val Leu Asn Gln Tyr Glu Gln Ala Ile Ala Met Asp Val Val Ala Pro
65                  70                  75                  80
Asp Asp Ile His Val Ser Phe Glu Asp Ile Gly Gly Leu Asp Asp Ile
                85                  90                  95
Ile Glu Glu Leu Lys Glu Ser Val Ile Tyr Pro Leu Thr Met Pro His
            100                 105                 110
Leu Tyr Ser Ser Thr Ser Ser Leu Leu Asn Ala Pro Ser Gly Val Leu
        115                 120                 125
```

```
Leu Tyr Gly Pro Pro Gly Cys Gly Lys Thr Met Leu Ala Lys Ala Leu
    130                 135                 140
Ala His Glu Ser Gly Ala Cys Phe Ile Asn Leu His Ile Ser Thr Leu
145                 150                 155                 160
Thr Glu Lys Trp Tyr Gly Asp Ser Asn Lys Leu Val Asn Ala Val Phe
                165                 170                 175
Ser Leu Ala Arg Lys Leu Gln Pro Ser Ile Val Phe Ile Asp Glu Ile
            180                 185                 190
Asp Ala Val Leu Gly Thr Arg Arg Ser Gly Glu His Glu Ala Ser Gly
        195                 200                 205
Met Val Lys Ala Glu Phe Met Thr His Trp Asp Gly Leu Thr Ser Ala
    210                 215                 220
Asn Ser Leu Gly Glu Pro Gln Arg Val Val Val Leu Gly Ala Thr Asn
225                 230                 235                 240
Arg Ile Gln Asp Ile Asp Glu Ala Ile Leu Arg Arg Met Pro Lys Lys
                245                 250                 255
Phe Pro Val Thr Leu Pro Pro Ala Ala Gln Arg Leu Arg Ile Leu Ser
            260                 265                 270
Leu Ile Leu Lys Asp Thr Lys Val Asp Arg Glu Asn Phe Asp Val His
        275                 280                 285
Tyr Leu Val Lys Ala Met Ala Gly Met Ser Gly Ser Asp Ile Lys Glu
    290                 295                 300
Ala Cys Arg Asp Ala Ala Met Val Pro Val Arg Glu Leu Asp Pro Gln
305                 310                 315                 320
Lys Lys Ala Glu Gly Ile Arg Met Thr Ser Val Asn Pro Thr Glu Val
                325                 330                 335
Arg Gly Leu Asp Thr Gly Asp Phe Phe Ser Arg Ala Gly Gly Arg Gln
            340                 345                 350
Val His Phe Ala Thr Leu Ser Ala Pro Asp Arg Thr Tyr Gln Leu Ser
        355                 360                 365
Gln Phe Gly Glu Arg Val Glu His Cys
    370                 375

<210> 32190
<211> 211
<212> PRT
<213> A.fumigatus

<400> 32190
Ser Cys Pro Gly Trp Glu Met Arg Leu Gln Ser Thr Arg Thr Ser Cys
1               5                   10                  15
Phe Glu Thr Glu Thr Arg Thr Glu Leu Asp Trp Ala Ile Ser Glu Gln
            20                  25                  30
Ser Trp Asp Val Arg Pro Gly Asn Ile Ser Ile Pro Cys Trp Leu Gly
        35                  40                  45
Ile Gln Lys Thr Arg Arg Lys Ser Asn Arg Lys His Tyr Ala Arg Leu
    50                  55                  60
Ser Ser Ser Leu Arg Asp Phe Ile Leu Gly Ala Phe Phe Val Val Asp
65                  70                  75                  80
Leu Thr Lys Asp Leu Ser Glu Ala Asp Ser Trp Thr Ser Gly Glu Cys
                85                  90                  95
Ala Ser His Phe Gln Gly His Leu Lys Lys Tyr Pro Pro Gln Val Ser
            100                 105                 110
Ser Arg Asn Ala Ala Ala Gly Trp Gly Cys Phe Ile His Asn Glu Val
        115                 120                 125
Asn Thr Met Leu Gly Lys Pro Glu Phe Asp Cys Asn Asn Ile Gly Asp
```

```
    130                 135                 140
Phe Tyr Asp Cys Gly Cys Ala Glu Asp Glu Lys Ala Ala Gly His Lys
145                 150                 155                 160
Asp Lys Ser Gln Ala Ala Ser Arg Gly Val Pro Gln Lys Lys Asp His
                165                 170                 175
Glu Gly Asp Ala Thr Thr Pro Val Glu Ile His Lys Glu Pro Ser Val
            180                 185                 190
Ala Pro Gln Tyr Phe Thr Phe Gln Leu Leu Thr Asp His Arg Arg Thr
        195                 200                 205
Thr Arg Gly
    210
```

<210> 32191
<211> 69
<212> PRT
<213> A.fumigatus

<400> 32191

```
Tyr Ser Leu Ile Cys Lys Ala Leu Gly Ala Asn Thr Ser Phe Ser Met
1               5                   10                  15
Ser Ile Ser Val Gly Gly Ala Tyr Asp Ser Leu His Lys Ala Thr His
            20                  25                  30
Glu Phe Leu Ser Gly Arg Val Thr Leu Ile Gly Asn Leu Gln Ala Phe
        35                  40                  45
Val Thr His Thr Thr Asp Arg Gly His Ser Lys Glu Ala Val Pro Ser
    50                  55                  60
Tyr Cys Arg His Tyr
65
```

<210> 32192
<211> 187
<212> PRT
<213> A.fumigatus

<400> 32192

```
Val Gln Val Ala Trp Val Ser Gly Asp Glu Val Leu Ser Thr Ile Lys
1               5                   10                  15
Lys Ser Leu Gln Ser Gly Lys Ser Thr Phe Ser Asn Val Tyr Thr Gly
            20                  25                  30
Glu Lys Leu Ser Glu Trp Ser Phe Glu Pro Ile Tyr Gly Gln Cys Tyr
        35                  40                  45
Leu Gly Gly Leu Gly Ile Ala Ala Ala Leu Ala Gln Gly Ala Asp Ile
    50                  55                  60
Val Leu Cys Gly Arg Val Ser His Ala Ser Pro Val Ile Gly Ala Ala
65                  70                  75                  80
Tyr Trp Tyr His Gly Trp Asp Arg Asn Asp Leu Asp Gln Leu Ala Asn
                85                  90                  95
Ala Phe Val Ala Gly His Leu Ile Glu Cys Asn Asn Tyr Val Cys Gly
            100                 105                 110
Arg Asn Phe Thr Gly Phe Lys Met Leu Glu Asn Ala Gly Gly Asp Gly
        115                 120                 125
Trp Thr Asn Ile Gly Tyr Pro Ile Ala Glu Ile Ser Ala Gln Arg His
    130                 135                 140
Val Val His Pro Lys Gln Ser Tyr Ser Ser Gly Gly Ala Val Pro Val
145                 150                 155                 160
Pro His Met Phe Leu Pro Asn Cys Cys Tyr Gln Asn Gln Arg Pro Leu
```

```
                165                 170                 175
Val Leu Ser Pro Pro Asn Val Glu Cys Gln Tyr
            180                 185
```

<210> 32193
<211> 85
<212> PRT
<213> A.fumigatus

<400> 32193

```
Lys Val Leu Ala Asn Lys Val Leu His Glu Ala Leu Ile Ser Glu Ser
1               5                   10                  15
Ser Leu Leu Ser Arg Phe Trp Ile Pro Met Ile Ala Cys Arg Val Ser
            20                  25                  30
Val His Trp Phe Gln Ala Thr Ser Lys Ile Pro Asp Ser Lys Leu His
        35                  40                  45
Ser Leu Ser Leu Phe Thr Ala Pro Thr Glu Pro Cys Ile His Leu Pro
    50                  55                  60
Ile Ala Thr Leu Tyr His Met Gln Thr Leu Tyr Glu Thr Thr Gln Thr
65                  70                  75                  80
Phe Asn Asn His Lys
                85
```

<210> 32194
<211> 84
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (74)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32194

```
His Leu Phe Asn Phe Ser Phe Val Pro Leu Asp Lys Ile Lys Val Thr
1               5                   10                  15
Pro Ala His Lys Leu Leu Asp Gly Pro Thr Pro Asp Met Gly Arg Ser
            20                  25                  30
Ser Ala Asn Gly Val Val Asp His Arg Ile Ser Ala Phe Val Val Arg
        35                  40                  45
Phe Asp Gly Leu Glu Val Val Arg Tyr Thr Phe Ala Arg Gln Gly Ser
    50                  55                  60
His Ile Asp Asp Lys Ser Ser Val Glu Xaa Gly Gln Val Asp Cys Phe
65                  70                  75                  80
Phe Thr Val Trp
```

<210> 32195
<211> 229
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (175)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32195
Leu Ala Ser Lys Thr Asn Thr Lys His Ile Leu Gly Thr Ala Gly Thr
1 5 10 15
Gln Ala Ile Leu Asp Ala Ile Ser Asp Ser Ser Arg Asn Val Gly Thr
20 25 30
Val Ala Ile Gly Gly Ile Lys Leu Ser Asn Val Gln Arg Val Ile Tyr
35 40 45
Gln Ser Lys Ala Pro Arg Lys Gly Leu Asp Gly Val Ala Ile Val Ser
50 55 60
Ala Ile Met Ala Ala Asp Asp Pro Arg Ala Ala Ala Glu Glu Phe Val
65 70 75 80
Lys Arg Ile Asn Asn Pro Pro Ser Phe Ala Trp Glu Pro Lys Ala Pro
85 90 95
Arg Ala Asn Glu Ala Ala Ala Leu Ala Glu Glu Val Ala Gln Ile Val
100 105 110
Gln Lys Met Val Lys Ala His Pro Leu Val His Asn Met Ile Asn Tyr
115 120 125
Val Val Ala Asn Phe Val Ala Asn Val Ala Leu Ala Met Tyr Val Cys
130 135 140
Ile Trp Ile Ile Ile Asp Leu Ser Asn Trp Leu Ala Glu Ala Leu Pro
145 150 155 160
Arg Ser Cys His His Thr Val Lys Lys Gln Ser Thr Trp Pro Xaa Ser
165 170 175
Thr Glu Leu Leu Ser Ser Ile Trp Glu Pro Cys Arg Ala Lys Val Tyr
180 185 190
Arg Thr Thr Ser Lys Pro Ser Asn Leu Thr Thr Asn Ala Glu Ile Leu
195 200 205
Trp Ser Thr Thr Pro Leu Ala Leu Leu Arg Pro Ile Ser Gly Val Gly
210 215 220
Pro Ser Arg Ser Leu
225

<210> 32196
<211> 65
<212> PRT
<213> A.fumigatus

<400> 32196
Pro Glu Glu Ser Val Arg Tyr Thr Val Leu Ala Ser Gly Ile Glu Leu
1 5 10 15
Leu Thr Leu Ser Gly Asn Val Val Leu Leu Thr Gly Ala Val Asp Tyr
20 25 30
Leu Ser Asp Gly Glu Arg Val Ile Ala Val Glu Asn Gly His Glu Phe
35 40 45
Leu Gly Gln Val Thr Gly Val Arg Leu Leu Leu Ser Ser Ser Ser Ala
50 55 60
Cys
65

<210> 32197
<211> 88
<212> PRT
<213> A.fumigatus

<400> 32197

```
Leu Asn Val Gln Thr Gly Cys Ala Val Gly Met Val Ser Gly Cys Phe
1               5                  10                  15
Leu Ala Val His Pro Ser Asp Lys Leu Leu Ala Val Leu Ser Gly Leu
            20                  25                  30
Leu Met Tyr Glu Ile Ala Ala Glu Asn Ala Ala Ser Lys Glu Tyr Val
        35                  40                  45
Arg Gly Pro Gly Ser Phe Val Pro Ala Phe Leu Asp Glu Leu Tyr Ala
    50                  55                  60
Ile Arg Gln Ala Ala Leu Lys Gly Asp Asp Ser Trp Phe Ser Gly Arg
65                  70                  75                  80
Ala Lys Ile Gln Glu Ile Lys Leu
                85
```

<210> 32198
<211> 65
<212> PRT
<213> A.fumigatus

<400> 32198

```
Thr Met Cys Pro Val Tyr Leu Leu Ile Lys Ser Cys Asp Ile Cys Asn
1               5                  10                  15
Met Val Gln Leu Thr Gly Leu Leu Gly Glu Gln Tyr Leu Glu Leu Phe
            20                  25                  30
Leu Leu Lys Pro Asp Phe Ser Gly Glu Lys Leu Pro Arg Thr Gly Pro
        35                  40                  45
Thr Val Phe Thr Thr Gly Leu Glu Gly Ser Asp Ala Gly Ser Met Ser
    50                  55                  60
Ile
65
```

<210> 32199
<211> 70
<212> PRT
<213> A.fumigatus

<400> 32199

```
Cys Val Thr Ser Gly Val Thr Ile Val Gln Tyr Arg Asp Lys Thr Ser
1               5                  10                  15
Asp Thr Gly Ala Leu Ile Gln Thr Ala Lys Glu Leu His Lys Ile Thr
            20                  25                  30
Lys Ala Tyr Gly Val Pro Leu Leu Ile Asn Asp Arg Val Asp Val Ala
        35                  40                  45
Leu Ala Val Gly Ala Glu Gly Val His Leu Gly Gln Asp Asp Met Cys
    50                  55                  60
Thr Ser His Gly Leu Arg
65                  70
```

<210> 32200
<211> 171
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (22)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32200
Leu Ala Cys Arg Gly Ala Ser Pro Ile Met Ser Pro Tyr Gly Glu Glu
1 5 10 15
Ala Val Asp Leu Ala Xaa Phe Asp Gly Ala Leu Val Ile Asn Met Gly
20 25 30
Thr Leu Ser Arg Glu Ser Ile Pro Asn Tyr Leu Gln Ala Ile Lys Ser
35 40 45
Tyr Asn Glu Arg Gly Asn Pro Val Val Tyr Asp Pro Val Gly Ala Ala
50 55 60
Ala Thr His Ile Arg Arg Gly Ala Val Lys Glu Leu Met Ser Gly Gly
65 70 75 80
Tyr Phe Asp Leu Ile Lys Gly Asn Glu Gly Glu Ile Lys Gln Val Ser
85 90 95
Gly Ser Arg Asn Ala Val Gln Arg Gly Val Asp Ser Gly Pro Ser Thr
100 105 110
Leu Asp Gly Gln Glu Lys Ala Arg Leu Ala Arg Asp Leu Ala Arg Arg
115 120 125
Glu Arg Thr Leu His Arg Pro Cys Lys Trp Asp Arg Val Ala Asn Ser
130 135 140
Val Arg Lys Arg Arg Pro Phe Asp Arg Arg Arg Arg Leu Ser Lys Arg
145 150 155 160
Arg Arg Ala Cys Asp Arg Cys Arg Glu Trp Ser
165 170

<210> 32201
<211> 174
<212> PRT
<213> A.fumigatus

<400> 32201
Ser Gly Ser Val Ile Gln Val Gly Phe Gly Lys Asn Met Trp Asp Val
1 5 10 15
Ile Pro Met Asp Asn Ile Thr Glu Val Asn Lys Val Gly Gly Arg Leu
20 25 30
Ser Leu Ser Pro Thr Ala Ser Ala Leu Thr Tyr His Ser Gln Arg Phe
35 40 45
Phe Ala Phe Val Val Leu Tyr Lys Thr Gln Ile Ser Leu Ala Lys Ile
50 55 60
Ser Val Cys Leu Phe Leu Leu Arg Ile Phe Gln Thr Leu Ala Phe Arg
65 70 75 80
Tyr Thr Thr Tyr Ala Ile Ile Gly Leu Asn Ala Ala Ile Gly Val Thr
85 90 95
Trp Val Leu Val Asp Ser Leu Arg Cys Asn Pro Val His Leu Ala Trp
100 105 110
Asp Gly Trp Thr Gly Glu Thr Pro Gly Thr Cys Ile Asn Phe Thr Ser
115 120 125
Ala Thr Phe Ala Asn Ala Phe Val Asn Ile Ala Val Asp Thr Val Met
130 135 140
Val Leu Met Pro Val Tyr Glu Ile Ser Lys Leu Asn Leu Ser Gly Arg
145 150 155 160
Lys Lys Leu Gly Val Ser Val Met Phe Ala Met Gly Leu Val
165 170

<210> 32202
<211> 167

<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (56),(152)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32202
Arg Leu Tyr Pro Glu Trp Gln Trp Arg Arg Ala His Gln Leu Met Leu
1 5 10 15
Gln Ser Lys Phe Ile Ile Thr Lys Gln Cys Met Glu Arg His Pro Ser
20 25 30
Gln Pro Pro Cys Pro Pro Thr Asp His Gln Thr Thr Lys Arg Trp Cys
35 40 45
Pro Trp Ser Leu Trp Asp Trp Xaa Trp Glu Leu Ala Ala Cys Val Val
50 55 60
Ala Ile Leu Thr Leu Ile Gly Met Ile Ala Val Leu Arg Ile Tyr Asp
65 70 75 80
Gly Lys Thr Gln Pro Asn Trp Pro Ala Gly Ile Asn Leu Asn Ala Ile
85 90 95
Ile Ala Leu Leu Thr Thr Leu Met Lys Ala Ala Met Ala Thr Tyr Ile
100 105 110
Ala Glu Ala Leu Ser Gln Leu Lys Tyr Ser Trp Phe Lys Asp Thr Arg
115 120 125
Arg Leu Ser Asp Leu Ala Ala Leu Asp Ser Ala Ser Arg Gly Ala Trp
130 135 140
Gly Ala Ala Gln Leu Leu Val Xaa Tyr Val Pro Arg Cys Ala Thr Ser
145 150 155 160
Leu Pro Ser Leu Ala Ser Arg
165

<210> 32203
<211> 76
<212> PRT
<213> A.fumigatus

<400> 32203
Ser Gly Val Pro Gly Arg Thr Val Ser Val Val Lys Arg Leu Gly Ala
1 5 10 15
Arg Ala Cys Asn Val Pro Val His Gln Gly Arg Pro Glu Gly Glu Ala
20 25 30
Ala Thr Leu Phe Pro Leu Ile Leu Ala Ser Val Leu Phe Phe Asn Arg
35 40 45
Met Ala Ala Lys Ser Met Gly Leu Ala Gly Gly Trp Gly Ser Asp Glu
50 55 60
Tyr Thr Ile Ile Gly Ala Tyr Val Arg Tyr Pro Leu
65 70 75

<210> 32204
<211> 166
<212> PRT
<213> A.fumigatus

<400> 32204
Leu Cys Phe Trp Trp Ala Arg Ile Pro Val Asn Val Gly Phe Gly His

```
1               5                   10                  15
Lys Ile Val Ala Gln Leu Pro Met Leu Thr Pro Ala Arg Cys Arg Phe
            20                  25                  30
Leu Ser Gly Gln Met His Val Phe Arg Pro Arg Ala Asp Leu Trp Arg
        35                  40                  45
Cys Ile Leu Ala Leu Ile Pro Met Leu Cys Ala Leu Met Ile Ala Ile
    50                  55                  60
Ser Arg Leu Glu Asp Tyr Arg His Asp Val Tyr Asp Val Thr Cys Gly
65                  70                  75                  80
Ser Ile Leu Gly Leu Ile Ile Ala His Phe Ser Tyr Arg Arg Tyr Tyr
                85                  90                  95
Pro Pro Leu Arg Ser Val Ala Cys Asp Val Pro His Glu Ala Tyr Glu
            100                 105                 110
Ile Val Gly Pro Asn Gly Phe Ser Lys Leu Pro Gly Asp Glu Glu Gln
        115                 120                 125
Gln Ile Gln Glu Arg Gly Leu Gly Ser Arg Gly Trp Glu Ala Gln Thr
    130                 135                 140
Tyr Gln Leu Glu Asp Leu Pro Ser His His Asp Arg Leu His Tyr Thr
145                 150                 155                 160
Ser Ser Ala Thr Pro Ala
                165
```

<210> 32205
<211> 143
<212> PRT
<213> A.fumigatus

<400> 32205

```
Ala Phe Ser Glu Ser Asp Thr Ser Leu Pro Tyr Ala His Lys Leu Pro
1               5                   10                  15
Val Trp Ser Ile Ile Tyr Ala Gly Val Val Pro Leu Leu Ile Leu Val
            20                  25                  30
Cys Trp Ala Ala Ile Phe Arg Pro Lys Pro Tyr Gln Val Gln Val Thr
        35                  40                  45
Ile Leu Gly Leu Leu Val Ala Leu Met Leu Thr Ser Leu Ile Thr Asp
    50                  55                  60
Ile Ile Lys Asn Ala Val Gly Arg Pro Arg Pro Asp Leu Ile Ser Arg
65                  70                  75                  80
Cys Met Pro Lys Lys Gly Thr Pro Ala Asn Thr Leu Val Ala Trp Thr
                85                  90                  95
Val Cys Thr Gln Ser Asn Asn His Ile Leu Gln Glu Gly Trp Arg Ser
            100                 105                 110
Phe Pro Ser Gly His Ser Ser Phe Ala Phe Gly Gly Leu Gly Tyr Leu
        115                 120                 125
Ser Met Leu Val Ser Ala Ile Arg Leu Leu Pro Ser Ser Gln Cys
    130                 135                 140
```

<210> 32206
<211> 118
<212> PRT
<213> A.fumigatus

<400> 32206

```
Glu Gly Phe Phe Phe Glu Pro Asp Glu Glu Arg Gly Glu Ile Lys Ile
1               5                   10                  15
Cys Asp Glu His Pro Gly Tyr Thr Asn Met Val Gln Ser Ala Asp Gly
```

```
            20                  25                  30
Thr Met Met Ser Ile Pro Phe Glu Lys Thr Gln Ile Pro Lys Glu Ala
        35                  40                  45
Glu Thr Arg Val Arg Ala Leu Leu Lys Glu Thr Met Pro Gln Leu Ala
    50                  55                  60
Asp Arg Pro Phe Ser Phe Ala Arg Ile Cys Trp Cys Ala Asp Thr Ala
65                  70                  75                  80
Asn Arg Glu Phe Leu Ile Asp Arg His Pro Gln Tyr His Ser Leu Val
                85                  90                  95
Leu Gly Cys Gly Ala Ser Gly Arg Gly Lys Thr Phe Thr Ser Arg Asp
            100                 105                 110
Val Lys Arg Asn Asn Arg
        115
```

<210> 32207
<211> 115
<212> PRT
<213> A.fumigatus

<400> 32207

```
Leu Pro Leu Leu Arg Gly Arg Val Val Thr Leu Ile Phe Glu Asn Asn
1               5                   10                  15
Asp Val Lys Gly Ala Val Thr Ala Asp Gly Lys Ile Trp Arg Ala Glu
            20                  25                  30
Arg Thr Phe Phe Cys Ala Gly Ala Ser Ala Gly Gln Phe Leu Asp Phe
        35                  40                  45
Lys Asn Gln Leu Arg Pro Thr Ala Trp Thr Leu Val His Ile Ala Leu
    50                  55                  60
Lys Pro Glu Glu Arg Ala Leu His Lys Asn Ile Pro Val Ile Phe Asn
65                  70                  75                  80
Ile Glu Arg Gly Ser Ser Ser Asn Gln Met Arg Ser Ala Val Arg Leu
                85                  90                  95
Arg Ser Ala Thr Asn Ile Arg Gly Ile Pro Ile Trp Tyr Ser Leu Pro
            100                 105                 110
Thr Ala Arg
        115
```

<210> 32208
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32208

```
Gly Phe Lys Tyr Leu Pro Ser Ile Gly Asn Leu Ile Val Asp Ala Met
1               5                   10                  15
Glu Gly Lys Val Pro Gln Lys Ile His Glu Leu Ile Lys Trp Asn Pro
            20                  25                  30
Glu Ile Ala Ala Asn Arg Asn Trp Arg Asp Thr Leu Gly Arg Phe Gly
        35                  40                  45
Gly Pro Asn Arg Val Met Asp Phe His Asp Val Lys Glu Trp Thr Asn
    50                  55                  60
Val Gln Tyr Arg Asp Ile Ser Lys Leu
65                  70
```

<210> 32209
<211> 70

<212> PRT
<213> A.fumigatus

<400> 32209
Pro Leu Gly Lys Leu Leu His Pro Ser Trp Ser Met Trp Leu Phe Asp
1 5 10 15
Cys Val Gln Thr Val Gln Ala Thr Asn Val Leu Ala Gly Val Pro Phe
20 25 30
Leu Gly Ile His Arg Glu Ile Arg Ser Gly Arg Gly Leu Pro Thr Ala
35 40 45
Phe Leu Met Met Ser Val Ile Arg Glu Val Asn Ile Ser Ala Thr Ser
50 55 60
Ser Pro Arg Ile Val Thr
65 70

<210> 32210
<211> 626
<212> PRT
<213> A.fumigatus

<400> 32210
Gly Ser Ala Thr Asn Tyr Asp Thr Lys Ala Phe Phe Pro Ser Leu Pro
1 5 10 15
Pro Leu Phe Pro Asn Ser Gly Lys Leu Asp Arg Lys Lys Leu Arg Ala
20 25 30
Thr Val Glu Thr Leu Pro Lys Asp Gln Leu Lys Ser Tyr Ala Thr Leu
35 40 45
Thr Ala Gly Ser Arg Gln Ala Ser Asp Glu Gly Val Glu Gly Thr Leu
50 55 60
Arg Ser Leu Trp Glu Glu Ala Leu Gly Leu Ala Ser Gly Ser Val Ser
65 70 75 80
Ala Glu Asp Ser Phe Phe Ser Leu Gly Gly Asp Ser Phe Ser Ala Met
85 90 95
Lys Leu Val Gly Ala Ala Asn Ser Gln Gly Ile Ser Leu Thr Phe Ala
100 105 110
Asp Val Tyr Glu Asp Pro Val Phe Met Asn Met Ala Lys Arg Cys Gly
115 120 125
Met Leu Gln Gly Arg Ser Gly Arg Gln Thr Val Thr Pro Phe Ser Leu
130 135 140
Leu Pro Ala Ser Val Asp Arg Glu Gln Leu Leu Glu Glu Val Ala Glu
145 150 155 160
Gln Cys Gly Val Pro Arg Ala Ser Ile Val Asp Leu Tyr Pro Cys Ser
165 170 175
Pro Val Gln Glu Gly Leu Leu Thr Leu Ser Val Lys Gln Asn Gly Ala
180 185 190
Tyr Ile Ala Gln Pro Ile Phe Arg Leu Ser Glu Gly Ile Asp Leu Asp
195 200 205
Met Phe Lys Ala Ala Trp Gln Gln Val Val Asp Glu Leu Asp Ile Leu
210 215 220
Arg Thr Arg Ile Val His Thr Glu Ser Leu Asn Phe Leu Gln Ala Val
225 230 235 240
Ile Asp Lys Glu Glu Ile Ser Trp Ala Ser Ala Thr Thr Leu Asp Glu
245 250 255
Leu Thr Ala Glu Ser Pro Glu Leu Pro Arg His Asn Gly Gly Arg Leu
260 265 270
Thr Gly Tyr Ala Ile Ala Ala Ser Gln Thr Gly Arg Tyr Phe Cys Trp

```
        275                 280                 285
Thr Ile His His Ala Leu Tyr Asp Gly Trp Ser Ile Pro Leu Val Leu
    290                 295                 300
Arg Arg Val Glu Glu Val Tyr Thr Asn Ser Thr Ala Ser Ala Arg Thr
305                 310                 315                 320
Val Pro Tyr Asn Leu Phe Ile Asn Tyr Leu Leu Glu Arg Ser Met Ala
                325                 330                 335
Asp Ser Asp Glu Tyr Trp Lys Ser Gln Leu Ala Asn Leu Ser Cys Ser
            340                 345                 350
Pro Phe Pro Gln Ser Arg Asn Pro Leu Pro Asp Ser Val Arg Val Gly
        355                 360                 365
Asn Arg His His Ser Ser Met Lys Ile Ser Arg Ala Ala Ser Gly Val
    370                 375                 380
Asp Leu Thr Ile Pro Glu Leu Ile Arg Ala Ala Trp Ala Ile Val Val
385                 390                 395                 400
Ser Ala His Thr Gly Ser Ser Asp Val Cys Phe Gly Glu Thr Leu Met
                405                 410                 415
Gly Arg Asn Ile Asp Leu Ala Gly Val Thr Asp Ile Ala Gly Pro Val
            420                 425                 430
Leu Thr Thr Val Pro Thr Arg Ile Gln Val Asp Asn Glu Leu Pro Ile
        435                 440                 445
Thr Gln Tyr Leu Glu Asn Met His His Leu Thr Thr Thr Met Leu Pro
    450                 455                 460
His Gln His Ser Gly Leu Gln Gln Ile Arg Lys Leu Asn Ser Asp Thr
465                 470                 475                 480
Ala Ser Ala Cys Glu Phe Gln Asn Leu Leu Val Ile Gln Thr Gly Glu
                485                 490                 495
Gly Gln Leu Asn Lys Ala Leu Trp Val Ala Glu Pro Ile Gln Thr Ser
            500                 505                 510
Gly Asp Phe Phe Thr His Pro Leu Val Val Glu Cys Lys Val Asp Thr
        515                 520                 525
Ser Glu Val Ser Ile Thr Met His His Asp Glu Ile Val Leu Asn Ser
    530                 535                 540
Trp Gln Thr Glu Lys Leu Ile Gly Gln Phe Ser Phe Val Leu Glu Gln
545                 550                 555                 560
Leu Leu Ser Ile Asn Lys Gly Glu Thr Arg Lys Leu Ser Glu Leu Glu
                565                 570                 575
Ile Phe Ser Pro Leu Asp Ser Lys Glu Val Ala Leu Trp Asn Lys Lys
            580                 585                 590
Ala Pro Glu Gly Val Glu Lys Cys Ala His Asp Ile Ile Ser Glu Arg
        595                 600                 605
Cys Ser Thr His Pro Asp Ala Pro Ala Val Cys Ala Trp Asp Gly Glu
    610                 615                 620
Val Ser
625
```

<210> 32211
<211> 482
<212> PRT
<213> A.fumigatus

```
<400> 32211
Lys Glu Met Tyr Thr Leu Ala Ser Ser Phe Ala Ser Tyr Leu Thr Cys
1               5                   10                  15
Arg Gly Val Gly Pro Glu Thr Leu Gly Pro Ile Cys Leu Asp Lys Ser
            20                  25                  30
```

```
Leu Trp Ala Ile Ile Thr Ile Leu Gly Ile Leu Ile Ala Gly Gly Ala
        35                  40                  45
Tyr Val Pro Leu Asp Pro Val His Pro Thr Ser Arg His Glu Glu Ile
    50                  55                  60
Phe Thr Glu Val Asp Ala Arg Ile Leu Ile Cys Ser Pro Gln Tyr Gln
65                  70                  75                  80
Ser Arg Tyr Ser Ser Ile Val Lys Thr Ile Ile Pro Val Ser Lys Glu
                85                  90                  95
Thr Ile Arg Ala Tyr Phe Ala Leu Asn Tyr Gln Ala Lys Gly Leu Arg
            100                 105                 110
Arg Val Thr Pro Phe Asn Met Ala Tyr Ala Ile Phe Thr Ser Gly Ser
        115                 120                 125
Thr Gly Arg Ala Lys Gly Ile Ile Ile Asp His Arg Ala Leu Ala Ser
    130                 135                 140
Ser Ala Met Ala Phe Gly Pro Ile Val His Leu Asn Glu Thr Ser Arg
145                 150                 155                 160
Ala Phe Gln Phe Ala Ser Leu Thr Phe Asp Ala Ala Val Met Glu Ile
                165                 170                 175
Leu Ala Thr Leu Met His Gly Gly Cys Ile Cys Ile Pro Ser Glu Asp
            180                 185                 190
Glu Arg Leu Asn Asp Val Ala Gly Ala Ile Arg Arg Met Asn Val Thr
        195                 200                 205
Trp Thr Phe Leu Thr Pro Ser Ile Ala Ser Ile Ile Glu Pro Ser Thr
    210                 215                 220
Val Pro Ser Leu Glu Val Leu Ala Cys Gly Gly Glu Lys Leu Ser Arg
225                 230                 235                 240
Glu Val Val Thr Lys Trp Ala His Arg Val Lys Leu Ile Asn Gly Tyr
                245                 250                 255
Gly Pro Thr Glu Thr Thr Ile Phe Ala Val Leu Asn Asn Val Ser Pro
            260                 265                 270
Thr Thr Asp Pro Ala Cys Ile Gly Tyr Gly Ile Pro Cys Thr Leu Thr
        275                 280                 285
Trp Val Val Asp Pro Glu Asn His Asp Arg Leu Thr Pro Leu Gly Ala
    290                 295                 300
Ile Gly Glu Leu Ala Leu Glu Gly Pro Ala Leu Ala Arg Glu Tyr Leu
305                 310                 315                 320
Lys Asn Pro Lys Lys Thr Ala Glu Ala Phe Val Asp Glu Pro Ala Trp
                325                 330                 335
Met Lys His Phe Gln Ser Thr Leu Pro Ser Pro Arg Arg Ile Tyr Lys
            340                 345                 350
Thr Gly Asp Leu Val Arg Tyr Asn Pro Asp Gly Ser Val Glu Tyr Ile
        355                 360                 365
Ser Arg Lys Asp Tyr Gln Val Lys Leu His Gly Gln Arg Met Glu Leu
    370                 375                 380
Gly Glu Ile Glu His Arg Leu His Glu Asp Asp Arg Val Arg His Ala
385                 390                 395                 400
Ile Val Ile Leu Pro Lys Glu Gly Leu Leu Lys Gly Arg Leu Val Thr
                405                 410                 415
Ile Leu Ser Leu Asn Ser Leu Lys Ser Gly Ser Ser Ile Ile Ser Asp
            420                 425                 430
Asn Ala Cys Glu Leu Ile Ser Arg Glu Asp Leu Ala Arg Val Ala Tyr
        435                 440                 445
Ser Glu Leu Ile Thr Ile Gln Lys Asn Leu Glu Ala Gln Leu Pro Ile
    450                 455                 460
Tyr Met Gly Pro Gln Thr Ser Ser Pro Gln Gly Pro Ala Thr Ala Gln
465                 470                 475                 480
```

Ala Gln

<210> 32212
<211> 280
<212> PRT
<213> A.fumigatus

<400> 32212
Val Val Leu Tyr Arg Ser Lys Glu Tyr Asp Thr Asn Arg Asp Pro Arg
1 5 10 15
Gly Pro Leu Ser Ala Gly Ala Glu Val Leu Tyr Gly Ile Met Ser Asp
20 25 30
Phe Val Thr Ala Leu Ala Thr Ala Pro Val Asp Ile Ala Glu Ala Ile
35 40 45
Ser Arg His His His His His Lys Lys His Gly Trp Arg His Ser His
50 55 60
Asp Glu Glu Val Thr Cys Gly Cys Glu Ala Arg Ile Gly Arg Ser Val
65 70 75 80
Lys Ser Lys Asp Gly Ile Pro Pro Glu Asp Gln Val Arg Ser Gln Leu
85 90 95
Gly Ala Val Ala Ser Ile Arg Arg Ser Ser Ser Asp Ser Pro Thr Ser
100 105 110
Ser Pro Ser Gly Ser Ala Asp Glu Glu Glu Asp Asp Asp Glu Gly Glu
115 120 125
Gln Val Gly Ser Glu Ser Thr Ser Phe Val Ser Ala Pro Asp Arg Ile
130 135 140
Ser Arg Asn Ser Val Pro Ala Pro Arg Ser Arg Ile Ser Asp Gln Ser
145 150 155 160
Thr Met Gln Ser Asp Ser Thr Glu Thr His Val Glu Ser Asp Glu Asp
165 170 175
Ser Gly Glu Leu Asp Leu Glu Lys Thr Ile Ser Arg Arg Ala Thr Arg
180 185 190
Glu Ala Arg Gly Gly Val His Val Val Leu Thr Glu Thr Gly Tyr His
195 200 205
Gly Lys Arg Phe Gly Lys Arg Leu Leu Asn Trp Leu Ile Thr Ile Pro
210 215 220
Thr Asp Val Thr Leu Ser Leu Ser Lys Gly Phe His Asn Ala Pro Lys
225 230 235 240
Leu Tyr His Asp Arg Thr Val Ala Glu Thr Pro Thr Val Met Gly Val
245 250 255
Arg Ser Gly Phe Arg Ala Ala Gly Lys Val Gly Ile Pro Arg Tyr Ser
260 265 270
Leu Ser Ser Gln Met Gly Cys Asn
275 280

<210> 32213
<211> 251
<212> PRT
<213> A.fumigatus

<400> 32213
Ala Leu Lys Gln Gly Lys Lys Tyr Asp Asp Pro Ala Ser Ala Ala Gln
1 5 10 15
Ile Arg Asp Phe Ile Asn Phe His Gln Leu Asp Leu Ser Glu Val Leu
20 25 30

```
Leu Pro Leu Asp Gln Phe Lys Thr Phe Asn Glu Phe Phe Tyr Arg Gln
        35                  40                  45
Leu Lys Pro Gly Ala Arg Leu Cys Ser Ala Pro Asn Glu Pro Arg Ile
    50                  55                  60
Ile Val Ser Pro Ala Asp Cys Arg Ser Val Val Phe Asp Arg Ile Asp
65                  70                  75                  80
Glu Ala Thr Ser Ile Trp Val Lys Gly Arg Glu Phe Ser Val Glu Arg
                85                  90                  95
Leu Leu Gly Asn Ala Tyr Pro Glu Asp Ala Pro Arg Tyr Lys Asn Gly
            100                 105                 110
Ala Leu Gly Ile Phe Arg Leu Ala Pro Gln Asp Tyr His Arg Phe His
        115                 120                 125
Ile Pro Val Asp Gly Val Met Gly Thr Pro Lys Thr Ile Glu Gly Glu
    130                 135                 140
Tyr Tyr Thr Val Asn Pro Met Ala Ile Arg Ser Ala Leu Asp Val Tyr
145                 150                 155                 160
Gly Glu Asn Val Arg Ile Leu Val Pro Ile Asp Ser Ile Ala His Gly
                165                 170                 175
Arg Val Met Val Val Cys Val Gly Ala Met Met Val Gly Ser Thr Val
            180                 185                 190
Ile Thr Arg Lys Ala Gly Glu Lys Val Thr Arg Gly Glu Glu Leu Gly
        195                 200                 205
Tyr Phe Lys Phe Gly Gly Ser Thr Val Leu Leu Leu Phe Glu Glu Gly
    210                 215                 220
Val Met Lys Phe Asp Lys Asp Leu Val Asp Asn Ser Arg Gly Ala Leu
225                 230                 235                 240
Glu Thr Leu Val Ser Thr Ile Asn Pro Leu Cys
                245                 250
```

<210> 32214
<211> 201
<212> PRT
<213> A.fumigatus

<400> 32214

```
Arg Ile Lys Val Asp Leu Ser Ser Phe Val Pro Ala Met Met Leu Glu
1               5                   10                  15
Ala Gly Asp Met Ala Glu Glu Gln Thr Cys Leu Asp Gln Glu Ser Arg
            20                  25                  30
Glu Val Arg Gly Glu Glu Thr Gly Glu Gly Asn Asp Asp Lys Trp Gln
        35                  40                  45
Glu Gln Thr His Gly Glu Phe Val Val Glu Ser Val Ala Glu Arg Gly
    50                  55                  60
Ser Gly Glu Arg Asp Ser Leu Ala Ser Asn Asn Ser Leu Ser Lys Glu
65                  70                  75                  80
Glu Leu Val Glu Glu Gly Glu Pro Ala Asp Lys Glu Ser Val Asp Glu
                85                  90                  95
Gln Ser Gly Ala Ile Glu Leu Ala Asp Glu Lys Ser Ala Asp Lys Glu
            100                 105                 110
Ala Asp Glu Glu Glu Cys Ser Glu Glu Glu Ser Asp Lys Glu Asp Leu
        115                 120                 125
Ala Pro Val Ser Ala Ala Tyr Tyr Ser Gly Ile Lys Val Tyr Gly Tyr
    130                 135                 140
Gly Leu Ser Asp Arg Pro Trp Ile Thr Arg Asp Gly Gln Asp Phe Ile
145                 150                 155                 160
Trp Leu Pro Pro Glu Phe Arg Pro Glu Cys Ser Ala Val Gln Gly Asp
```

```
                165                 170                 175
Thr Ile Ala Ile Gly Cys Arg Ser Gly Arg Val Leu Ile Phe Gly Phe
            180                 185                 190
Ala Pro Asp Gly Cys Ser Thr Gly Ala
        195                 200
```

<210> 32215
<211> 214
<212> PRT
<213> A.fumigatus

<400> 32215

```
Trp Leu Ser Leu Ser Asp His Ala Val Gly Val His Pro Lys Pro Ala
1               5                   10                  15
Glu Val Glu His Leu Lys Ser Ser Leu His Phe Pro Gln Gly His Leu
            20                  25                  30
Phe Leu Ser Lys Leu Asp Asp Ser Asn Ser Ser Val Ser Ala Asn Met
        35                  40                  45
Thr Ile Thr Gln Glu Leu Val Lys Asp Lys Thr Ala Glu Asp Ser Asp
    50                  55                  60
Arg Pro Ser Ala Glu Gln Pro Pro Gly Tyr Asp Gln Ile Asp Glu Gln
65                  70                  75                  80
Pro Ser Thr Ile Pro Pro Leu Asp Leu Ser His Asn Ala Gly Pro Pro
                85                  90                  95
Ala Ser Thr Thr Val Thr Arg Asp Gln Cys Val Ala His Leu Lys Phe
            100                 105                 110
Ile Ala Ala Leu Ala Asp Leu Arg Asp Ser Val Ala Gly Asn Asp Gly
        115                 120                 125
Leu Phe Gly Leu His Asp Pro Pro Pro Thr Glu Phe Pro Asp His Ile
    130                 135                 140
Asn Glu Val Arg Ala Arg Met Arg Glu Lys Arg Trp Ala Val Tyr Thr
145                 150                 155                 160
Ala Arg Ala Val Asp Arg Tyr Thr Lys Trp Trp Val Lys Cys Val Pro
                165                 170                 175
Asn Asp Arg Pro Arg Ala Arg Leu Thr Asp Leu Met Asp Glu Ser Tyr
            180                 185                 190
Asp His Ile Thr Gln Asp Ile Arg Leu Ile Ser Trp Ser Lys Asp Ser
        195                 200                 205
Leu Pro Pro Leu Gly Glu
    210
```

<210> 32216
<211> 178
<212> PRT
<213> A.fumigatus

<400> 32216

```
Trp Arg Arg Val Val Leu Thr Gly Ala Asp Val Leu Met Val Trp His
1               5                   10                  15
Ala His Met Leu Asn Pro Arg Ala Phe Leu Glu Asp Cys Ile Arg Ser
            20                  25                  30
Gly Lys Met Cys Cys Trp Ala Ser Gly Phe Pro Trp Glu Thr Ile Asn
        35                  40                  45
Asp Cys Ile Asp Asn Arg Thr Leu Glu Tyr Asp Ala Gly Asp Arg Ala
    50                  55                  60
Arg Val His Phe Asn Arg Met Thr Arg Phe Ala Trp Glu Asn Leu Asp
```

65 70 75 80
Asp Pro Leu Asn Lys Leu Ile Glu Cys Pro Ala Cys Glu Asn Thr Val
85 90 95
Ser Val Pro Trp Thr Gln Gly Arg Ile Ser Leu Pro Leu Gln Thr Ala
100 105 110
Phe Asp Lys Phe Asn Gly Tyr Ala Asp Lys Asn Phe His Val Lys Cys
115 120 125
Pro Lys Cys Gly Ser Thr Val Asp His Glu Leu Leu Arg Val Arg Lys
130 135 140
Phe Arg Arg Asp Val Ala Asn Trp Leu Lys Glu Lys Met Pro Met Pro
145 150 155 160
Gly Thr Leu Tyr Asn Met Arg Gly Ile Pro Gln Ser Thr Arg Ser Gln
165 170 175
Thr Arg

<210> 32217
<211> 76
<212> PRT
<213> A.fumigatus

<400> 32217
Trp Lys Ala Ser Arg Asn Thr Phe Phe His His Thr Thr Thr Val Trp
1 5 10 15
Pro Ile Tyr Phe Ile Leu Phe Tyr Phe Ser Phe Ile Leu Leu Phe Leu
20 25 30
Ser Arg Leu Phe Asn Asn Tyr Leu Val Ser Met Cys Val Leu Ile Ala
35 40 45
Met Ile Ile Ile Asn Ser Lys Tyr Ser Ala Arg Phe Ile Ile Ser Ile
50 55 60
Ile Asn His Leu Phe Ser Arg Val Asn Ile Ile Ser
65 70 75

<210> 32218
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32218
Pro Ala Glu Arg Lys Lys Ser Asn Gln Arg Gln Val Asp Asn Thr Pro
1 5 10 15
Asn Thr Ile Thr Ile Leu Gly Leu Thr Thr Cys Asp Leu Arg Gly Thr
20 25 30
Phe Trp Pro Ala Tyr His Ser Pro Thr Ala Arg Leu Phe Ala Ile Val
35 40 45
Arg His Met Glu Pro Tyr Lys Cys Arg Arg Thr Ile
50 55 60

<210> 32219
<211> 95
<212> PRT
<213> A.fumigatus

<400> 32219
Ser Leu Ala Asn Pro Gly Val Gly Gly Gly Ser Gly Phe Gly Ala Ala
1 5 10 15

```
Ile Ser Arg Arg Phe Gly Glu Glu Gly Ala Lys Val Ile Val Ala Asp
            20                  25                  30
Ile Asp Val Glu Asn Gly Glu Lys Ile Ala Ala Gln Asn Pro Glu Asn
        35                  40                  45
Leu Val Phe Tyr Lys Met Asp Val Thr Ser Ala Ser Asp Trp Asp Glu
    50                  55                  60
Val Met Asp Leu Ala Phe Ala Lys Phe Gly Arg Leu Asp Val Leu Val
65                  70                  75                  80
Asn Asn Ala Gly Thr Thr Tyr Arg Asn Lys Val Arg Thr Ile Arg
                85                  90                  95
```

<210> 32220
<211> 80
<212> PRT
<213> A.fumigatus

<400> 32220

```
Gly Ala Pro Leu Ala Asp Val Arg Ala Leu Gln Pro Thr Leu Glu Val
1               5                   10                  15
Thr Glu Glu Glu Trp Glu Arg Val Phe Asn Val Asn Val Arg Ser Ile
            20                  25                  30
Phe Leu Gly Ser Lys Ala Leu Met Gly Arg Leu Ile Gln Gln Gly Gln
        35                  40                  45
Gly Gly Ser Met Ile Asn Ile Ser Ser Thr Gly Ala Ser Arg Pro Arg
    50                  55                  60
Pro Gly Leu Val Trp Tyr Asn Ala Ser Lys Gly Ala Val Ser Asn Val
65                  70                  75                  80
```

<210> 32221
<211> 88
<212> PRT
<213> A.fumigatus

<400> 32221

```
Ala Thr Lys Gly Leu Ala Ala Glu Tyr Gly Pro His Asn Ile Arg Val
1               5                   10                  15
Asn Thr Val Ser Pro Leu Leu Ser Gly Thr Gly Leu Phe Ser Met Phe
            20                  25                  30
Thr Gly Met Glu Asp Thr Pro Glu Asn Arg Glu Lys Phe Ile Gly Asn
        35                  40                  45
Val Pro Leu Gly Arg Leu Thr Asp Pro Asn Asp Val Ala Asn Met Cys
    50                  55                  60
Leu Tyr Leu Ala Ser Asp Glu Gly Ser Phe Ile Asn Gly Ala Glu Met
65                  70                  75                  80
Ile Val Asp Gly Gly Lys Cys Ile
                85
```

<210> 32222
<211> 77
<212> PRT
<213> A.fumigatus

<400> 32222

```
Asn Ala Thr Thr Asp Glu Ile Arg Arg Thr Glu Met Ile His Ser Arg
1               5                   10                  15
Ser Tyr Thr Leu Ala Thr Ile Asp Asp His Leu Arg Ala Val Asp Glu
```

```
            20                  25                  30
Thr Ala Leu Ile Thr Gly Lys Val Gln Thr His Ile Arg His Ile Ile
        35                  40                  45
Trp Val Gly Gln Pro Ala Glu Gly His Ile Pro Asp Lys Leu Leu Thr
    50                  55                  60
Val Leu Arg Arg Val Leu His Ala Ser Glu His Gly Lys
65                  70                  75

<210> 32223
<211> 312
<212> PRT
<213> A.fumigatus

<400> 32223
Asp Asp Arg Ser Lys Phe Leu Pro Arg Met Leu Ala Gly Ile Leu Ile
1               5                   10                  15
Glu Val Glu Arg Ile Val Asp Cys Trp Gln Phe Thr Leu Arg Gly Ser
            20                  25                  30
Tyr Asp Asn His Val Thr Lys Ile Ser Pro Phe Leu Leu Leu Gly Thr
        35                  40                  45
Ala Glu Glu Arg Gln Ser Asn Asn Val Thr Asn Arg Pro Ile Met Ser
    50                  55                  60
Ser Pro Thr Val Ser Ala Lys Leu Glu Gly Ser Lys Glu Gln Ser Lys
65                  70                  75                  80
Ser Ala Pro Asp Ser Lys Ile Asp His Ala Ala Ser Leu Lys Tyr Trp
                85                  90                  95
Asn Asp Val Pro Ala Thr Ser Asn Gly Met Leu Ala Met Leu Gly Asp
            100                 105                 110
Tyr Pro Trp Tyr Ser Arg Ile Asp Leu Arg Gly Ser Arg Ala Phe Leu
        115                 120                 125
Ala Lys Val Arg Arg Leu Leu Pro Ser Cys Ser Thr Glu Gly Lys Leu
    130                 135                 140
Lys Leu Gly Val Asp Cys Gly Ala Gly Val Gly Arg Ile Thr Glu Gly
145                 150                 155                 160
Phe Leu Ser His Val Cys Glu Val Val Asp Val Val Glu Pro Val Ala
                165                 170                 175
Lys Phe Thr Glu Val Val Arg Asn Ser Ser Leu Lys Lys Asp Gly Ile
            180                 185                 190
Val Gly Asp Ile Tyr Thr Val Gly Leu Glu Asn Trp Tyr Pro Glu Lys
        195                 200                 205
Lys Tyr Asp Leu Ile Trp Thr Gln Trp Cys Val Gly His Leu Thr Asp
    210                 215                 220
Ala Gln Leu Leu Glu Tyr Val Lys Arg Cys Arg Ala Ala Leu Thr Glu
225                 230                 235                 240
Thr Gly Ile Met Val Val Lys Glu Asn Gln Ser Thr Asp Ile Asn Gly
                245                 250                 255
Glu Asp Met Phe Asp Glu Val Asp Ser Ser Val Thr Arg Thr Asp Glu
            260                 265                 270
Lys Phe Lys Lys Ile Phe Lys Glu Ala Gly Met Thr Val Phe Leu Ser
        275                 280                 285
Glu Ile Gln Thr Gly Phe Pro Lys Asn Phe Arg Leu Leu Pro Val Arg
    290                 295                 300
Ser Tyr Ala Leu Arg Pro Asn Ser
305                 310

<210> 32224
```

<211> 350
<212> PRT
<213> A.fumigatus

<400> 32224
Leu Ala Ile Glu Ile Asn Pro Ser Ser Ser Ile Tyr Leu Ser Asn Arg
1 5 10 15
Ala Ala Ala Tyr Leu Ser Ala Asn Arg Tyr Leu Glu Ala Leu Glu Asp
20 25 30
Ala Glu Arg Ala Leu Glu Leu Asp Pro Asp Asn Ser Lys Ile Met Tyr
35 40 45
Arg Leu Ala Arg Ile Leu Thr Ala Leu Gly Arg Pro Ser Glu Ala Leu
50 55 60
Glu Val Leu Ser Arg Val Gln Pro Pro Ala Ser Ala Thr Asp Arg Ala
65 70 75 80
Ala Pro Glu Lys Met Gln Arg Phe Ile Lys Gln Ala Glu Glu Thr Leu
85 90 95
Ala Glu Asp Arg Gly Val Ser Met Val Leu Phe Cys Ile Glu Gln Ala
100 105 110
Arg Gln Leu Leu Gly Arg Gly Val Lys Glu Pro Arg Lys Trp Thr Leu
115 120 125
Leu Thr Ala Glu Ala Gln Leu Lys Met Gly Ser Glu Asn Ser Phe Arg
130 135 140
Lys Ala Gln Asp Ile Ala Ile Ser Met Leu Arg Glu Asn Asn Gln Asp
145 150 155 160
Pro Asp Ala Leu Met Ile Arg Ala Arg Ala Tyr Tyr Gly Leu Gly Glu
165 170 175
Ser Glu Gln Ala Leu Lys Thr Leu Lys Met Cys Leu Gly Leu Asp Pro
180 185 190
Asp Met Lys Pro Ala Ile Lys Met Leu Arg Thr Val Gln Lys Leu Thr
195 200 205
Arg Thr Lys Glu Glu Gly Asn Asn Ala Phe Lys Ala Lys Asp Tyr Arg
210 215 220
Lys Ala Ile Glu Leu Trp Ser Glu Ala Leu Glu Val Asp Pro Gln Asn
225 230 235 240
Lys Asp Met Asn Ser Lys Ile Leu Gln Asn Arg Ala Gln Ala Tyr Ile
245 250 255
Asn Leu Lys Glu Tyr Glu Asn Ala Ile Asn Asp Cys Asn Glu Ala Leu
260 265 270
Lys Leu Asp Pro Ser Tyr Val Lys Ala Gln Lys Met Arg Ala Lys Ala
275 280 285
Tyr Gly Gly Ala Gly Asn Trp Glu Glu Ala Ile Arg Asp Tyr Asn Ala
290 295 300
Val Ala Asp Ala Asn Pro Gly Glu Ile Gly Ile Gln Glu Asp Ile Arg
305 310 315 320
Arg Ala Glu Cys Glu Leu Lys Lys Ala Gln Arg Lys Asp Tyr Tyr Lys
325 330 335
Ile Leu Gly Val Ser Lys Asp Ala Ser Glu Ser Glu Ile Lys
340 345 350

<210> 32225
<211> 305
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (193),(220),(228)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32225
Ile Asp Phe Gly His Pro Ile Phe Phe Trp Ile Ser Ser Ser His Leu
1 5 10 15
Cys Ile Val His Asp Arg Leu Leu Ser Pro Val Tyr Gly Arg Lys Asn
20 25 30
Thr Lys Ile Asn Ile Ser Thr Ala Phe Ala Asp Ile Arg Tyr Pro Gln
35 40 45
Pro Ile Arg Asp Cys Asn Ser Asp Asn Gln Lys Lys Thr Arg Thr Gly
50 55 60
Lys Arg Arg Lys Glu Glu Lys Asp Met Val Leu Pro His Leu Phe Ala
65 70 75 80
Arg His Lys Ser Lys Arg Ser Thr Ser Ser Lys Glu Asp Ser Lys Lys
85 90 95
Thr Ser Ser Pro Lys Ser Pro Pro Pro Ser Thr Glu Thr Leu Pro Ser
100 105 110
Arg Ser Ser Ser Thr Ser Thr Ser Ser Ser Arg His Thr Pro Ser His
115 120 125
His Pro His His Leu Arg Ser Pro Ser His Pro Pro Pro Thr Pro Val
130 135 140
Pro Leu Pro His His Leu Phe Ile His Arg Pro Leu Ile Pro Arg Asp
145 150 155 160
Arg Pro Asn Ser Lys Ser Arg Ser His Thr Ser Ala Lys Ser Lys Ser
165 170 175
Ser Ser Ser Lys Asp Ala Ala Ala Ala Ala Arg Phe Ser Phe Pro Ala
180 185 190
Xaa Arg Leu Ser Ser Thr Phe Asp Arg Tyr Ser His Asp Pro Asp Phe
195 200 205
His Pro Leu Asn Leu His Pro Asp Glu Leu Arg Xaa Leu Ser Ala Met
210 215 220
Ala Ser Ala Xaa Asp Arg Ser Ser Met Asp Ile Asp Ser Pro Gly Ser
225 230 235 240
Ser Ser Gln Asn Ile Asn Gly Val Asn Gly Val Gln Thr Asp Arg Val
245 250 255
Leu Pro Arg Arg Arg Thr Ser Pro Met Ala Arg Ser Pro Lys Pro Thr
260 265 270
His Ser Asn Trp Arg Ala Ile Asn Phe Ser Arg Thr Glu Ile Thr Ile
275 280 285
Ala Gln Leu Lys Ser Ser Pro Lys Val Ser Met Gln Phe Ser Ser Leu
290 295 300
Lys
305

<210> 32226
<211> 175
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (158)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32226
Thr Phe Pro Pro Pro Ser Pro Thr Phe Asp Thr Leu Ser Gln Ser Gly
1 5 10 15
Thr Ala Ile Leu Ile Thr Arg Lys Arg Pro Glu Gln Glu Asn Ala Val
20 25 30
Lys Lys Lys Lys Ile Trp Phe Phe Leu Thr Ser Leu Pro Val Thr Asn
35 40 45
Pro Ser Asp Pro Leu His Pro Lys Arg Ile Arg Arg Arg Leu His Arg
50 55 60
Gln Lys Val Leu Leu His Arg Arg Arg Pro Phe Leu Leu Gly Arg Pro
65 70 75 80
Arg Leu Arg Arg Leu Arg Leu Ala Thr Pro Pro Val Ile Ile Leu Ile
85 90 95
Ile Phe Ala Leu Pro His Thr His Arg Arg Leu Pro Phe Leu Phe Leu
100 105 110
Ile Ile Tyr Ser Ser Thr Val Leu Ser Phe Leu Glu Ile Val Gln Ile
115 120 125
Pro Ser Arg Asp Pro Thr Pro Pro Leu Asn Pro Asn Leu Pro Arg Pro
130 135 140
Arg Thr Pro Pro Pro Pro Arg Gly Ser Val Ser Leu Leu Xaa Gly Ser
145 150 155 160
Pro Pro Pro Ser Ile Val Thr Arg Thr Ile Pro Thr Phe Ile Leu
165 170 175

<210> 32227
<211> 103
<212> PRT
<213> A.fumigatus

<400> 32227
Ser Ile Leu Leu Thr Ala Ala Leu Gly Met Pro Lys Ala Leu Ile Arg
1 5 10 15
Val Gln Leu Leu Trp Val Asn Leu Val Thr Asp Gly Leu Pro Ala Thr
20 25 30
Ala Leu Ser Phe Asn Pro Pro Asp His Asp Val Met Arg Arg Ala Pro
35 40 45
Arg Lys Arg Asp Glu Pro Leu Val Gly Gly Trp Leu Leu Phe Arg Tyr
50 55 60
Leu Ala Ile Gly Thr Tyr Val Gly Ala Ala Thr Val Phe Gly Tyr Ile
65 70 75 80
Trp Trp Phe Val Tyr Asn Pro Glu Gly Pro Gln Ile Ser Phe Trp Gln
85 90 95
Leu Val Ser Lys Leu Ser Gln
100

<210> 32228
<211> 125
<212> PRT
<213> A.fumigatus

<400> 32228
Ala Asn Cys Leu Ser Glu Thr Phe Ser Cys Leu Ser Asn Ser Tyr Leu
1 5 10 15
Gln Ser His Phe His Lys Cys Ser Ala Gln Phe Pro Glu Ile Gly Cys
20 25 30
Glu Met Phe Ser Asn Glu Met Ser Arg Ser Ala Ser Thr Val Ser Leu

```
        35                  40                  45
Ser Ile Leu Val Val Ile Glu Met Leu Asn Ala Met Asn Ala Leu Ser
    50                  55                  60
Ser Ser Glu Ser Leu Leu Ala Phe Pro Leu Trp Asn Asn Met Met Leu
65                  70                  75                  80
Val Tyr Ala Ile Ile Leu Ser Met Thr Leu His Phe Ala Ile Leu Tyr
                85                  90                  95
Ile Pro Phe Leu Gln Thr Leu Phe Ser Ile Leu Pro Leu Asn Trp Thr
            100                 105                 110
Glu Trp Lys Ala Val Leu Ala Ile Ser Ala Pro Val Val
        115                 120                 125
```

<210> 32229
<211> 67
<212> PRT
<213> A.fumigatus

<400> 32229

```
Leu Val Val Arg Ala Tyr Pro Leu Ala Ser Leu Gly Tyr Ala Asn Trp
1               5                   10                  15
Ile Leu Arg His Tyr Gly Tyr Lys Ala Val Ser Ile Phe Gly Leu Thr
            20                  25                  30
Leu Tyr Gly Ile Gly Ala Leu Cys Met Trp Pro Ala Gly Leu Asn Arg
        35                  40                  45
Ser Phe Gly Gly Phe Cys Ala Ala Thr Phe Leu Ile Trp Ser Gly Leu
    50                  55                  60
Gly Ser Leu
65
```

<210> 32230
<211> 81
<212> PRT
<213> A.fumigatus

<400> 32230

```
Gln Pro Ile Gly Lys Ser Leu His Met Asp His Asp Gln His Met Phe
1               5                   10                  15
Val Asp Phe Lys Phe Asp Gln Ser Ile Gln Val Ser Thr His Pro His
            20                  25                  30
Lys Glu Glu Asn Arg Asp Gln Gly Glu Gly Pro Gln Ala Leu Thr Gln
        35                  40                  45
Gly Glu Arg Ser Cys Arg Gly Gly Thr Leu Ile Val His Pro Glu Arg
    50                  55                  60
Arg Ala Gly Ser Glu Asn Leu Ser Asp Pro His Phe Gly Asn Cys Gly
65                  70                  75                  80
Gly
```

<210> 32231
<211> 77
<212> PRT
<213> A.fumigatus

<400> 32231

```
Phe Asn Met Arg Asn Lys Val Ile Thr Arg Tyr Pro Tyr Tyr Ser Gly
1               5                   10                  15
```

```
Pro Tyr Phe Gln Val Tyr Arg Asp Ser Thr Ala Leu Asp Asp Phe Asp
            20                  25                  30
Ile Ser Leu Arg Leu Gln Met Gln Gly Met Gly Cys Gly Ser Thr Gln
        35                  40                  45
Ser Ser Ile Arg Ala Ser Gly Cys Thr His Ser Gly Arg Ala Gly Val
    50                  55                  60
Gly Ala Pro Tyr Cys Asn Cys Arg Phe Gln Ala Glu Leu
65                  70                  75
```

<210> 32232
<211> 677
<212> PRT
<213> A.fumigatus

<400> 32232

```
Thr Glu Asn Thr Ile Leu Thr Ile Phe Arg Ile Gly Arg Asp Phe Ala
1               5                   10                  15
Arg Arg Gly Thr Cys Ser Phe Lys Asn Gly Lys Phe Gln His Val Asn
            20                  25                  30
Asp Thr Gly Arg Arg Asp Asp Asn Arg Pro Lys Arg Asp Val Arg Pro
        35                  40                  45
Lys Arg Pro Glu Leu Ser Asp Ser Glu Lys Gln Phe Arg Ser Trp Lys
    50                  55                  60
Asp Thr Leu Asn Thr Asp Phe Arg Ala Ser Arg Pro Gly Arg Ala Lys
65                  70                  75                  80
Leu Asn Asn Phe Phe Arg Asp Ala Arg Gln Leu Ile Glu Val Asp Ala
                85                  90                  95
Gly Leu Met Gln Gly Val Ile Arg Glu Leu Ser Glu Glu Thr Gly Leu
            100                 105                 110
Glu His Ile Arg Asp Leu Val Glu Asn Lys Phe Pro Lys Ala Glu Ser
        115                 120                 125
Lys Ala Lys Glu Glu Val Phe Arg Ser Gln Val Leu Pro Met Leu Glu
    130                 135                 140
Thr Val Ser His Pro Lys Val Leu Ser Ser Leu Ile Leu Glu Gln Ala
145                 150                 155                 160
Val Gly Thr Ile Tyr Asn Val Leu Tyr Gly Ile Asn Gly Arg Arg Ala
                165                 170                 175
Ala Leu Phe Leu Ser Ser Val Cys Asp Val Leu Ser Lys Ile Ser Glu
            180                 185                 190
Glu Glu Thr Ala Val Glu Trp Leu Glu Ile Ser Leu Leu Val Phe Ala
        195                 200                 205
Lys Ile Val Asp Leu Asn Ser Thr Ala Phe Val Gln Asp Ala Leu Lys
    210                 215                 220
Asp Gln Ala Lys Arg Phe Gln Gln Leu Phe Leu Arg Met Ala Glu Gly
225                 230                 235                 240
Gly Leu Ala Ser Ser Leu His His Ser Arg Asn Leu Leu Asp His Leu
                245                 250                 255
Leu Cys Arg Leu Glu Ile Gly Ser Ser Leu Pro Ser Ala Pro Ala Asn
            260                 265                 270
Asp Lys Leu Glu Ser Glu Pro Lys Ser Thr Ala Thr Phe Met Val His
        275                 280                 285
Arg Glu Pro Pro Gly Gly Arg His Asp Asn Asp His Ala Asp Ile Val
    290                 295                 300
Asn Ile Ala Ile Met Pro Thr Leu Asp Glu Ile Gln Ser Ser Arg Ile
305                 310                 315                 320
Glu Tyr Leu Pro Val Asn Asp Pro Arg Gln Trp His Val Gly Gly Leu
```

```
                325                 330                 335
Asp Gly Leu Leu Asp Arg Asn Phe Arg Leu Leu Arg Glu Asp Thr Ile
            340                 345                 350
Gly Gln Leu Arg Asp Ala Ile His Gln Glu Leu Lys Gly Ser Gln Glu
        355                 360                 365
Pro Gly Arg Gln Ile Ser Gln Val Arg Thr His Val Tyr Pro Arg Ala
    370                 375                 380
Lys Ile Arg Gln Ile Tyr Phe Asp Lys Phe Leu Gly Phe His Phe Lys
385                 390                 395                 400
Val Gln Phe Pro Gln Pro Pro Arg Val Ser Glu Met Ser Val Lys Asp
                405                 410                 415
Arg Glu Asn Trp Trp Gln Leu Ser Lys Arg Leu Leu Pro Gly Ala Leu
            420                 425                 430
Val Cys Leu Ile Met Asn Gly Arg Asn Gly Arg Thr Val Val Phe Cys
        435                 440                 445
Thr Ile Val Asp Glu Gln Val Arg Ser Pro Lys Lys Gln Thr Asp Asn
    450                 455                 460
Ala Asn Lys Glu Ser Glu Asn Val Ala Ser Leu Trp Glu Asp Ala Lys
465                 470                 475                 480
Glu Ala Ser Val Lys Ile Met Leu Val Asp Thr Lys Pro Gly Met Val
                485                 490                 495
Arg Thr Ile Leu Asn Lys Val Leu Ser Lys Arg Asp Phe Ser Ile Val
            500                 505                 510
Glu Phe Pro Gly Ile Leu Leu Ala Gly Phe Glu Pro Thr Leu Arg Ala
        515                 520                 525
Leu Lys Lys Ile Lys Glu Asn Arg Glu Leu Pro Phe Leu Glu Ile Leu
    530                 535                 540
Val Ala Ser Gly Asn Val Gly Pro Val Asp Val Pro Pro Pro Leu Tyr
545                 550                 555                 560
Ala Leu Arg Pro Gly Phe Arg Phe Asn Leu Arg Cys Leu Met Asn Asn
                565                 570                 575
Asn Ala Asp Leu Tyr Val Gln Ala Asp Lys Pro Val Asp Ile Glu Tyr
            580                 585                 590
Leu Gln Arg Asn Ser Thr Leu Asp Trp Ala Gln Ala Arg Ala Leu Val
        595                 600                 605
Asn Ser Leu Gln His Arg Ile Gly Leu Ile Gln Gly Pro Pro Gly Thr
    610                 615                 620
Gly Lys Ser Tyr Thr Gly Val Ala Leu Ile Gln Val Leu Leu Ala Asn
625                 630                 635                 640
Lys Lys Gln Gly Lys Thr Asn Leu Gly Pro Met Leu Cys Val Thr Tyr
                645                 650                 655
Thr Asn His Ala Leu Asp Gln Leu Leu Glu Ala Leu Ile Asp Lys Gly
            660                 665                 670
Val Thr Ser Gln Ser
        675

<210> 32233
<211> 161
<212> PRT
<213> A.fumigatus

<400> 32233
Asp Trp Gln Arg Gly Thr Gly Thr Ile Leu Tyr Asn Pro Ala Val Arg
1               5                   10                  15
Ala Ser Val Gly Gly Ser Thr Ser Met Asn Thr Ser Ser Val Gly Asn
            20                  25                  30
```

```
Gly Tyr Ser Ser Arg Pro Tyr Asn Arg Thr Gly Asn Gly Ala Asp Phe
        35                  40                  45
Ser Asp Gly Gln Ser Gly Gly Tyr Gly Arg Arg Ser Asn Pro Asp Thr
    50                  55                  60
Ser Asn Arg Gly Tyr Pro Leu Val Thr Glu Asp Gly Glu Glu Ile Gln
65                  70                  75                  80
Thr Gln Asn Ile Ser Ile Pro Ala Asp Met Val Gly Cys Ile Ile Gly
                85                  90                  95
Arg Gly Gly Ser Lys Ile Thr Glu Ile Arg Arg Ser Ser Gly Ala Arg
            100                 105                 110
Ile Ser Ile Ala Lys Ala Pro His Asp Glu Thr Gly Glu Arg Met Phe
        115                 120                 125
Thr Ile Met Gly Ser Ala Gln Ala Asn Glu Lys Ala Leu Tyr Leu Leu
    130                 135                 140
Tyr Glu Asn Leu Glu Ala Glu Lys Thr Arg Arg Ser Gln Leu Pro Gln
145                 150                 155                 160
Glu
```

<210> 32234
<211> 212
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (86)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32234

```
Pro Thr Ala Ala Leu Ser Gly Arg Met Val Phe Ser Glu Glu Asn Gln
1               5                   10                  15
Leu Asp Leu Gly Leu Gly Ala Leu Phe Lys Ala Gln Val Ser Glu Asn
            20                  25                  30
Gly Ala Ala Val Ala Val Glu Ser Asp Gly His Ala Leu Ser Tyr Ala
        35                  40                  45
Asp Leu His Ser Lys Ala Leu Tyr Leu Ala Tyr Gln Ile Gln Arg Leu
    50                  55                  60
Cys Pro Cys Asp Gly Thr Pro Val Gly Ile Leu Ile Pro Arg Gly Ile
65                  70                  75                  80
Asn His Ile Leu Gly Xaa Val Ala Val Leu Tyr Leu Gly Arg Ser Cys
                85                  90                  95
Val Pro Leu Asp Phe Lys Leu Pro Asp Asp His Leu Asn Asn Met Leu
            100                 105                 110
His Asp Ile Gly Thr Asn Leu Val Ile Cys Asp Gln Glu Thr Thr His
        115                 120                 125
Arg Leu Pro Thr Phe Thr His Val Leu Ala Asp His Thr Ile Glu Ala
    130                 135                 140
Pro Gly Pro Ser Phe Glu Pro Leu Leu Lys Gly Pro Lys Ser Cys Ser
145                 150                 155                 160
His Ile Leu His Thr Ser Gly Thr Thr Gly Lys Pro Lys Ala Ile Glu
                165                 170                 175
Ile Phe Ala Glu Gly Ala Tyr Gln His Pro Ser Arg Ser Phe Val Pro
            180                 185                 190
Cys Lys Arg Lys Val Thr Val Ser Val Ile Tyr Arg Val Cys Leu Phe
        195                 200                 205
```

Pro Leu Arg Trp
210

<210> 32235
<211> 599
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (494),(543)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32235
Lys Lys Gly Asp Arg Phe Gly His Ile Pro Ser Val Pro Phe Ser Ala
1 5 10 15
Ser Leu Val Asp Leu Trp Gly Ser Leu Val Thr Gly Ala Thr Ile Val
20 25 30
Cys Ile Pro Lys Glu Thr Val Leu Asp Pro Leu Glu Leu Ser Arg Gln
35 40 45
Ile Lys Ser Leu Lys Leu Asn Val Met Gln Ile Thr Thr Ser Leu Leu
50 55 60
Asn Ile Thr Ala Tyr Ala Ser Pro Ser Ala Phe Ser Ser Leu Glu Thr
65 70 75 80
Leu Ile Thr Gly Gly Glu Ala Ile Asn Val Gln Thr Ile Arg Thr Ile
85 90 95
Phe Glu Gly Gly Pro Pro Arg Arg Ile Ile Asn Gly Tyr Gly Pro Thr
100 105 110
Glu Cys Ser Val Tyr Thr Leu Trp His Pro Val Ser Arg Glu Glu Ala
115 120 125
Gln Arg Gly Glu Ile Pro Val Gly Lys Pro Phe Cys Asn Val Gln Thr
130 135 140
Cys Leu Val Asp Glu Asn Leu Ile Pro Val Lys Ala Gly Val Ile Gly
145 150 155 160
Glu Leu Leu Ile Ala Gly Ala Gly Val Ala Gly Gly Tyr Ile Gly Glu
165 170 175
Pro Glu Lys Thr Ala Lys Ser Phe Val Ser Leu Pro His Leu Pro Leu
180 185 190
His Ser Asn Arg Gly Pro Gly His Ile Tyr Arg Thr Gly Asp Leu Met
195 200 205
Arg Met Asp Glu Asp Gly Val Tyr Tyr Tyr Ile Gly Arg Lys Asp Ser
210 215 220
Gln Ile Lys Ile Arg Gly Gln Arg Val Glu Ile Glu Ala Leu Glu Ser
225 230 235 240
Asn Leu Val Gln Leu Lys Ala Val Ser Ala Ala Ala Val Ile Lys Ile
245 250 255
Thr Pro Lys Gly Ala Gly Arg Asn Pro Phe Leu Val Ala Phe Cys Val
260 265 270
Pro Ile Ser Pro Cys Ile Thr Ala Ala Ala Ile Thr Lys Glu Tyr Val
275 280 285
Glu Gly Lys Thr Ile Lys Leu Val Leu Arg Ile Glu Val Val Val Ser
290 295 300
Leu Pro Leu Lys Thr Asn Gly Lys Thr Asp Arg Lys Glu Leu Glu His
305 310 315 320
Arg Tyr Leu Ala Lys Ile Thr Asp Ser Cys Met Thr Ser Arg Tyr Ala
325 330 335

```
Gly Lys Asp Ile Gly Asn Val Glu Ala Lys Leu Lys Ala Leu Cys Val
            340                 345                 350
Asp Ile Leu Ser Leu Pro Thr Glu Asp Ile Asp Pro Thr Asp Asp Phe
        355                 360                 365
Met Ala Met Gly Thr Asn Ser Leu Met Val Ala Ile Leu Leu Ala Arg
    370                 375                 380
Ile Asn Arg Thr Phe Gly Val Ser Leu Gly Ala Ser Lys Ile Tyr Glu
385                 390                 395                 400
Asn Pro Thr Leu Arg Ser Leu Thr Asn Leu Leu Glu Thr Thr Gln Gly
                405                 410                 415
His Ser Thr Glu Leu Thr Asn Glu Ala Glu Gln Glu Leu Trp Leu Gln
            420                 425                 430
Asp Thr Gln Leu Gly Gln His Leu Arg Pro Leu Pro Gly Thr Val Val
        435                 440                 445
Asp Trp Glu Asp Val Ser Glu Gly Arg Val Phe Leu Thr Gly Ala Thr
    450                 455                 460
Gly Phe Val Gly Ala Phe Phe Leu Ala Glu Leu Leu Arg Met Pro Thr
465                 470                 475                 480
Val Lys Lys Val Ala Cys Leu Ile Arg Ala Lys Asn Gln Xaa Ala Gly
                485                 490                 495
Arg Leu Arg Leu Glu Asn Val Leu Arg Lys Tyr Gln Ile Tyr Ser Asp
            500                 505                 510
Leu Asp Lys Val Val Val Leu Pro Gly Ser Phe Ser Glu Ala Asn Leu
        515                 520                 525
Gly Leu Asn Arg Lys Asp Tyr Asp Tyr Tyr Ala Glu Trp Ala Xaa Val
    530                 535                 540
Val Phe His Leu Gly Ala Lys Val Ser Tyr Val Ala Pro Tyr Ser Ser
545                 550                 555                 560
His Arg Met Asp Asn Val Val Gly Thr Cys Asn Ile Leu Glu Phe Ala
                565                 570                 575
Ser Pro Lys Pro Ser Lys Gly His Ser Leu His Leu His His Pro Arg
            580                 585                 590
Tyr Met Gly Leu Pro Gly Ser
        595

<210> 32236
<211> 466
<212> PRT
<213> A.fumigatus

<400> 32236
Lys Pro Ala Gly Val Asn Thr Gly Phe Gly Gly Ser Ala Asp Ser Arg
1               5                   10                  15
Thr Asp Arg Val Val Ala Leu Gln Ser Gly Leu Leu Gln Leu Leu Gln
            20                  25                  30
Ala Gly Val Leu Val Arg Ser Asp Lys Gly Leu Gln Cys Gln Gln Gln
        35                  40                  45
Gln Ser Leu Glu Ser His Ala Met Pro Ala Ser Trp Val Arg Gly Thr
    50                  55                  60
Met Leu Val Arg Cys Asn Ser Asn Ala Arg Gly His Ser Ala Val Ser
65                  70                  75                  80
Leu Pro Val Ile Glu Ser Leu Leu Arg Leu Ile Glu Asn His Ile Thr
                85                  90                  95
Pro Val Val Pro Leu Arg Gly Ser Ile Ser Ala Ser Gly Asp Leu Met
            100                 105                 110
Pro Leu Ser Tyr Ile Ala Gly Ala Ile Glu Gly Ser Pro Asp Val Tyr
```

```
        115                 120                 125
Val Gln Val Gln Asp Ala Asp Lys Thr Arg Ile Met Asn Ser Arg Asp
    130                 135                 140
Ala Leu Leu Ser Thr Gly Leu Glu Ala Gln Thr Leu Gly Pro Lys Glu
145                 150                 155                 160
Gly Leu Gly Leu Val Asn Gly Thr Ser Ala Ser Ala Ala Leu Ala Ser
                165                 170                 175
Leu Val Met Tyr Glu Ala His Gln Leu Ala Val Leu Val Gln Ala Leu
            180                 185                 190
Ser Ala Val Thr Val Glu Ala Leu Met Gly Asn Ala Glu Ser Phe His
        195                 200                 205
Pro Phe Ile Ser Ala Ile Arg Pro His Asp Gly Gln Ile Glu Cys Ala
    210                 215                 220
Arg Asn Val Leu Ser Phe Leu Gln Gly Ser Gln Leu Ala Gln Asn Val
225                 230                 235                 240
Glu Arg Asp Leu Lys Asp Arg Asn Arg Pro Gly Leu Ile Gln Asp Arg
                245                 250                 255
Tyr Ala Leu Arg Thr Val Pro Gln Trp Ile Gly Pro Gln Leu Glu Asp
            260                 265                 270
Leu Leu Leu Ala His His Gln Val Thr Val Glu Leu Asn Ser Ser Cys
        275                 280                 285
Asp Asn Pro Leu Val Asp Met Gln Ser Gly Asp Ile Phe Tyr Gly Gly
    290                 295                 300
Asn Phe Gln Ala Val Ser Ile Thr Ser Ala Met Glu Lys Thr Arg Thr
305                 310                 315                 320
Cys Leu Gln Met Phe Gly Arg Leu Leu Phe Ala Gln Ala Thr Glu Leu
                325                 330                 335
Ile Asp Pro Asn Leu Asn Asn Gly Leu Pro Thr Asn Leu Val Ala Asp
            340                 345                 350
Asp Pro Ser Leu Ser Phe Thr Met Lys Gly Val Asp Ile Ser Met Ala
        355                 360                 365
Ser Tyr Met Ala Glu Leu Ala Tyr Leu Ala Asn Pro Val Ser Ser His
    370                 375                 380
Val Gln Thr Ala Glu Met His Asn Gln Ser Val Asn Ser Met Ala Phe
385                 390                 395                 400
Val Ser Ser Arg Tyr Thr Met Gln Ala Val Glu Ile Val Ser Leu Met
                405                 410                 415
Cys Ala Cys Ser Val Tyr Ile Gly Cys Gln Ala Leu Asp Leu Arg Val
            420                 425                 430
Pro Asn Ser Thr Ser Trp Thr Ala Gln Arg Lys Asn Phe Gln Arg Phe
        435                 440                 445
Thr Pro His Met Phe Leu Arg Lys Pro Pro Glu Thr Glu Leu Arg Asn
    450                 455                 460
Pro Gln
465
```

<210> 32237
<211> 67
<212> PRT
<213> A.fumigatus

<400> 32237

```
Leu Val Ile Leu Leu Ile His Ser Gly Leu Asn Arg Lys Ile Arg Lys
1               5                   10                  15
Phe Trp Arg Pro Phe Cys Pro Tyr Asn Ser Ile Asn Leu Asp Ser Glu
            20                  25                  30
```

```
Glu Gly Cys Glu Gly Ser Val Ser Val Gly Arg His Val Val Pro Tyr
        35                  40                  45
Gly His His Thr Tyr Asp Lys Lys Glu Val Lys Tyr Gly Ile Ser Asn
    50                  55                  60
Tyr Leu Leu
65
```

<210> 32238
<211> 601
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1),(3),(4)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32238

```
Xaa His Xaa Xaa Gly Leu Ala Leu Arg Asn Asn Leu Thr Gly Tyr Val
1               5                  10                  15
Pro Leu Thr Ala Val Ser Lys Lys Leu Asp Glu Lys Ile Glu Lys Ile
            20                  25                  30
Leu Asn Asp Asn Asp Asn Glu Asp Ser Asp Ala Glu Glu Glu Asp Gly
        35                  40                  45
Asp Asp Asp Ser Leu Asp Leu Thr Asp Tyr Phe Tyr Leu Gly Gln Tyr
    50                  55                  60
Leu Arg Ala Ser Val Val Ser Val Gly Ser Asn Ala Ala Asp Ala Pro
65                  70                  75                  80
Ser Lys Asn Lys Lys Arg Ile Glu Leu Ser Val Asp Pro Arg Gln Ala
                85                  90                  95
Asn Ala Gly Leu Ser Lys Ser Asp Leu Glu Val Asn Thr Ala Ile Gln
            100                 105                 110
Ala Ser Val Val Ser Val Glu Asp His Gly Leu Val Met Asp Leu Gly
        115                 120                 125
Ile Glu Gly Ala Asp Val Lys Gly Phe Met Ser Lys Lys Glu Ile Asp
    130                 135                 140
Pro Lys Thr Asp Tyr Ser Ser Ile Lys Glu Gly Ser Val Phe Leu Cys
145                 150                 155                 160
Met Val Thr Gly Gln Asn Ala Asn Gly Ser Val Val Lys Leu Ser Ala
                165                 170                 175
Asn Leu Gln Ser Ala Gly Ser Ile Lys Lys Ser His Tyr Leu Ser Thr
            180                 185                 190
Ala Ser Thr Ile Asn Ser Phe Leu Pro Gly Thr Ala Ala Glu Ile Leu
        195                 200                 205
Leu Thr Glu Val Ser Ser Ser Gly Leu Ile Gly Lys Ile Met Gly Met
    210                 215                 220
Leu Asp Ala Thr Val Asp Leu Val Gln Ser Gly Gly Asn Ser Gly Lys
225                 230                 235                 240
Asp Asp Leu Thr Lys Lys Phe Gln Met Gly Ala Lys Ile Lys Gly Arg
                245                 250                 255
Ile Val Cys Thr Phe Pro Ala Ser Glu Pro Phe Lys Val Gly Phe Ser
            260                 265                 270
Ile Leu Asp His Val Leu Lys Phe Ala Thr Glu Gly His Gly Pro Gly
        275                 280                 285
Thr Ser Glu Asp Ala Pro Ala Ile Ser Ala Ile Ile Pro Glu Thr Lys
    290                 295                 300
```

```
Val Val Met Val Asp Pro Gly Met Gly Val Tyr Val Gln Met Gly Ser
305                 310                 315                 320
Thr Lys His Val Gly Phe Val His Val Ser Arg Leu Ala Asp Gly Lys
                325                 330                 335
Val Glu His Ile Ala Pro Glu His Gly Pro Phe Arg Ile Asp Ser Val
            340                 345                 350
His Glu Ala Arg Val Val Gly Tyr Ser Ala Phe Asp Gly Leu Tyr Leu
        355                 360                 365
Leu Ser Phe Glu Arg Lys Val Ile Glu Gln Pro Phe Leu Arg Leu Glu
    370                 375                 380
Asp Val Thr Val Gly Thr Val Val Lys Gly Lys Ile Glu Lys Leu Leu
385                 390                 395                 400
Ile Gly Pro Ala Gly Val Asp Gly Leu Ile Val Thr Leu Ala Asp Gly
                405                 410                 415
Ile Thr Gly Leu Val Pro Ser Met His Phe Ala Asp Thr Ala Leu Gln
            420                 425                 430
Phe Pro Glu Lys Lys Phe Arg Glu Gly Met Thr Ile Thr Ala Arg Ile
        435                 440                 445
Leu Ser Val Asn Leu Gln Lys Arg Gln Ile Arg Leu Thr Leu Lys Lys
    450                 455                 460
Ser Leu Leu Asn Ser Glu Ser Ala Ile Trp Lys Asp Tyr Gln Asp Ile
465                 470                 475                 480
Val Pro Gly Ser Gln Ser Pro Gly Thr Ile Val Asn Ile Gln Pro His
                485                 490                 495
Gly Ala Val Val Gln Phe Tyr Gly Pro Val Arg Gly Phe Leu Pro Val
            500                 505                 510
Ser Glu Met Ser Glu Ala Tyr Ile Lys Asp Pro Ser Gln His Phe Arg
        515                 520                 525
Gln Gly Gln Val Val Asn Val His Ala Leu Ser Val Asp Pro Ala Leu
    530                 535                 540
Gly Lys Leu Ala Val Ser Cys Lys Asp Pro Ser Thr Phe Thr Glu Thr
545                 550                 555                 560
Tyr Arg Lys Ala Phe Glu Lys Ile Gln Pro Gly Leu Arg Val Thr Gly
                565                 570                 575
Thr Val Phe Glu Lys Ser Val Asp Asp Val Leu Leu Lys Leu Glu Ser
            580                 585                 590
Ser Pro Arg Gly Trp Lys Asp Thr Arg
        595                 600
```

<210> 32239
<211> 597
<212> PRT
<213> A.fumigatus

<400> 32239

```
His Asn Glu Phe Ser Ile Leu Val Pro Thr Asn His Ala Pro Ser Asn
1               5                   10                  15
Glu Met Ser Ala Asp Ser Ser Ser Pro Leu Val Val Lys Glu Pro Lys
            20                  25                  30
Asp Gly Gly Met Pro Thr Glu Gly Glu Lys Leu Arg Leu Val Ile Ile
        35                  40                  45
Gly Gly Ala Arg Gly Gly Met Ser Ala Ala Val Arg Ala Arg Arg Leu
    50                  55                  60
Asn Glu Asn Ala Ser Ile Ile Val Ile Glu Arg Gly Ser Tyr Ile Ser
65                  70                  75                  80
Tyr Thr Asn Cys Phe Ala Pro Phe Ser Leu Gly Gly Ala Ile Glu Arg
```

```
                85                  90                  95
Asp Thr Trp Ile Ala Val Gln Thr Pro Ala Gly Leu Lys Ala Arg Phe
            100                 105                 110
Asn Val Asp Val Arg Val Cys Thr Glu Leu Val Ser Ile Ser Arg Glu
        115                 120                 125
Arg His Ser Ile Thr Val Arg Cys Arg Lys Thr Asp Thr Thr Tyr Asp
    130                 135                 140
Leu Pro Tyr Asp Lys Met Ile Leu Ala Gln Gly Ala Asp Pro Ala Gly
145                 150                 155                 160
Arg Pro Met Ala Asp Ile Glu Lys Asp Lys Val Phe Pro Leu Gln Thr
                165                 170                 175
Pro Ala Asp Leu Gln Ala Ile Arg Ser Phe Val Val Lys Asn Asp Cys
            180                 185                 190
Arg Glu Val Val Ile Leu Gly Gly Ala Phe Thr Gly Leu Lys Ala Val
        195                 200                 205
Glu Ser Leu His Ser Phe Gly Leu His Val Arg Val Val Glu Ala Gly
    210                 215                 220
Asp Arg Leu Cys Pro Glu Phe Asp Pro Asp Phe Ala Thr Ile Ile Gln
225                 230                 235                 240
Lys Glu Leu Val Lys Arg Gly Val Gly Ile His Leu Gly Arg Gly Glu
                245                 250                 255
Cys Gln Thr Ile Ala Glu Thr Glu Asp Ser Asp Arg Cys Arg Ile Glu
            260                 265                 270
Phe His Asp Gly Ser Ser Leu Ser Ala Asp Leu Val Val Val Ala Thr
        275                 280                 285
Glu Pro Glu Pro Arg Val Gln His Ala Lys Asn Ala Gly Leu Thr Val
    290                 295                 300
Arg Lys Gly Ile Val Val Asn Ala Phe Met Gln Thr Ser Asp Pro Asp
305                 310                 315                 320
Ile Tyr Ala Val Gly Ser Val Ala Glu Val Val Asn Ser Ile Ser His
                325                 330                 335
Met Pro Gln Val Ser Ser Ser Met Ser Gly Ala Ser Asn Arg Gln Gly
            340                 345                 350
Arg Leu Ala Ala Asp His Ile Phe Thr Arg Ala Thr Ala Tyr Pro Gly
        355                 360                 365
Thr Ala Gly Thr His Val Tyr His Val Phe His Leu Thr Ala Ala Ile
    370                 375                 380
Thr Gly Leu Ser Val Ser Glu Leu Arg Gln Ile Gly Tyr Asp Pro Gln
385                 390                 395                 400
Ser Val Thr Ile His Gln Pro Asp His Ala Gly Tyr Phe Pro Ser Ala
                405                 410                 415
Gln Gln Leu Thr Leu Arg Val Ala Phe Glu Arg Ala Ser Gly Val Leu
            420                 425                 430
Leu Gly Ala Gln Ile Ile Gly His Ser Gly Val Asp Gly Arg Ile Asp
        435                 440                 445
Val Leu Ala Thr Ala Met Gln Ala Gly Met Thr Val Phe Asp Leu Glu
    450                 455                 460
His Leu Glu Leu Ser Tyr Met Pro Gln Tyr Gly Ser Val Arg Asp Pro
465                 470                 475                 480
Val Asn Leu Ala Gly Ser Val Gly Ser Asn Leu Leu Arg Gly Asp Leu
                485                 490                 495
His Ile Val His Pro Gln Asp Leu Gln Gly His Leu His Glu Trp Pro
            500                 505                 510
Ile Ile Asp Val Arg Ser Ala Glu His Phe Ala Gln Gly His Leu Pro
        515                 520                 525
Leu Ala Arg Asn Ile Pro Ile Asp Ser Leu Arg Ser Arg Leu Ala Glu
```

```
    530                 535                 540
Ile Gly Lys Asp Arg Pro Val Leu Val Tyr Ser Arg Val Gly Tyr His
545                 550                 555                 560
Gly Tyr Leu Ala Tyr Arg Asn Leu Val Gln Ser Gly Tyr Arg Ala Ala
                565                 570                 575
Asn Leu Asp Gly Gly Leu Lys Leu Phe Thr Asp Gly Gly Tyr Gln Pro
            580                 585                 590
Gln Leu Thr Val Asp
        595
```

<210> 32240
<211> 178
<212> PRT
<213> A.fumigatus

<400> 32240

```
Cys Ile Val Ala Trp Arg Lys Val Leu Lys Asp Leu Ile Ile Phe Phe
1               5                   10                  15
Lys Glu Val Gln Lys Ser Tyr Glu Thr Arg Ser Lys Leu Tyr Leu Ser
            20                  25                  30
Ala Ser Asn Val Val Asn Asn Ala Ser Leu Pro Pro Thr Phe Leu Lys
        35                  40                  45
Ser Gly Gly Leu Ala Asp Ala Thr Asp Ile Leu Arg Asp Phe His Arg
    50                  55                  60
Gln Gly Tyr Leu Glu Ala Asn Lys Ala Ala Glu Val Glu Ser Glu Val
65                  70                  75                  80
Val Asn Gln Leu Met Gly Leu Arg Asn Asp Leu Gln Lys Lys Thr Lys
                85                  90                  95
Glu Ile Lys Ser Leu Gln Gly Asp Phe Arg Asn Ser Val Asp Lys Glu
            100                 105                 110
Val Glu Asn Thr Arg Lys Thr Val Arg Gln Leu His Glu Ala Leu Gly
        115                 120                 125
Leu Val Asp Thr Asp Pro Ser Ala Thr Ser Gly Lys Gly Asp Pro Phe
    130                 135                 140
Ile Ile Arg Leu Ser Val Asp Arg Gln Ile Glu Lys Gln Ile Glu Glu
145                 150                 155                 160
Glu Asn Tyr Leu His Arg Val Ser Leu Ser Glu Ala Ser Tyr Arg Leu
                165                 170                 175
Asn His
```

<210> 32241
<211> 83
<212> PRT
<213> A.fumigatus

<400> 32241

```
Thr Ile Asp Thr Ala Val Arg Leu Val Thr Glu Leu Asp Tyr Pro Asp
1               5                   10                  15
Ser Tyr Ser Asp Arg Val Leu Arg Ser Asp Ser Phe Tyr Asp Tyr Tyr
            20                  25                  30
Met Ile Ser Phe Thr Ile Pro Phe Ala Pro Pro Val Leu Leu Ile Thr
        35                  40                  45
Ala Asn Ser Arg Ser Ile Ser Asn Ala Ser Gly Gln Thr Asp Asn Ala
    50                  55                  60
Leu Ile Gly Ala Leu Pro Tyr Leu Thr Thr Gly Ile Ala Leu Pro Asp
```

65 70 75 80
Tyr Pro Gly

<210> 32242
<211> 113
<212> PRT
<213> A.fumigatus

<400> 32242
Ala Phe Leu Asn Leu Glu Asn Ser Gly Arg Glu Leu Glu Ser Ile Val
1 5 10 15
Val Ser Glu Ile Gln Lys Ala Tyr Asn Ala Tyr Ala Ser Ile Leu Lys
20 25 30
Arg Glu Ala Asp Glu Ala Tyr Asp Thr Val Glu Lys Leu Arg Thr Gly
35 40 45
Pro Ile Ser Met Pro His Asp His Glu Trp Asn His Phe Ile Ala Asn
50 55 60
Thr Asp Glu Leu Val Asp Pro Arg Val Ser Leu Arg Asn Val Glu Asn
65 70 75 80
Ile Thr Tyr Pro Gly Lys Asp His Pro Ala Ala Ala Glu Val Arg Ser
85 90 95
Gly Met Leu Glu Arg Lys Ser Lys Tyr Leu Lys Ser Tyr Thr Pro Gly
100 105 110
Trp

<210> 32243
<211> 132
<212> PRT
<213> A.fumigatus

<400> 32243
Leu Asp Ile Arg Tyr Val Leu Ser Pro Thr His Leu His Glu Phe Lys
1 5 10 15
Ser Ala Asp Arg Val Ala Trp Gln Thr Pro Val Met Ser Leu Tyr Leu
20 25 30
Pro Glu Gln Lys Leu Gly Ser His Ser Gln Pro Asp Ser Thr Ser His
35 40 45
Lys Phe Met Leu Lys Gly Arg Gln Thr Gly Pro Met His Arg Gly His
50 55 60
Ser Trp Val Phe Arg Ala Glu Ser His Glu Thr Met Met Ala Trp Tyr
65 70 75 80
Glu Asp Ile Glu Ser Leu Ile Ser Lys Thr Gly Glu Ala Arg Tyr Ala
85 90 95
Tyr Val Arg Arg His Val Arg Thr Val Asn Arg Ala Ser Ala Ser Thr
100 105 110
Thr Leu Ile Trp Met Lys Thr Lys Pro Ile Ala His Arg Met Gln Arg
115 120 125
Arg Pro Val Gly
130

<210> 32244
<211> 354
<212> PRT
<213> A.fumigatus

<400> 32244
Gln Ser Ser Trp Glu Leu Ile Thr Thr His Leu Ser Ser Gln Gln Leu
1 5 10 15
Gly Glu Pro Phe Asn Ser Ile Leu Trp Arg Arg Ala Glu Lys Met Cys
20 25 30
Leu Ile Glu Lys Tyr Thr Asp Val Tyr Pro Met Glu Ile Arg Thr Arg
35 40 45
Thr Val Ile Arg Arg Cys Leu Phe Ser Asp Gly Arg Gly Thr Cys Asp
50 55 60
Arg Ala Arg Val Tyr Asp Arg Gly Glu Phe Tyr His Val Arg Gln Ser
65 70 75 80
Gln Gln Gly Gly Pro Arg Arg Met Thr Ser Pro Arg Ile Lys Thr Ile
85 90 95
Val Pro Arg Asn Leu Ser Glu Thr Arg Cys Gln Glu Glu His Arg His
100 105 110
Pro Ser Pro Thr Trp Arg Leu Ser Gln Ala Arg Ser Arg Ser Tyr Ser
115 120 125
Phe Arg Ile Pro Ile Ser Arg Arg Ser Ser Glu Thr Ser Asp Arg Glu
130 135 140
Thr Leu Cys Glu Arg Arg Gly Arg Gln Arg Ser Pro His Pro Ile Val
145 150 155 160
Val Asp Ser Pro Glu Val Glu Glu Arg Thr Pro Arg Asn Asp Arg Pro
165 170 175
Asp Ser Val Arg Ile Arg Cys Ile Ser Pro Gln Ala Gly Arg Ala Pro
180 185 190
Thr Thr Thr Asp Arg Glu Gln Ala Asn Asp Val Val Glu Ile Pro Arg
195 200 205
Gln Ala Arg Ser Gln Gln Pro Ser Arg Glu Gln Arg Pro Pro Arg Glu
210 215 220
Arg Thr Pro Val Thr Glu Arg Glu Pro Val Gln Arg Arg Pro Arg Arg
225 230 235 240
Ser Leu Asn Cys Val Val Asp Ile His Asn Asp Ala Ala Ala Ser Gln
245 250 255
Asp Arg Gln Arg Gln Ser Ala Glu Pro Arg Gln Val Arg Phe Ser Ser
260 265 270
Asp Val Glu Tyr Glu Met Asn Val Asn Ser Thr Arg Ala Arg Asn Arg
275 280 285
Ser Ala Ala Phe His Gln Glu Glu Ser Ile Asp Ala Arg Ala Pro Thr
290 295 300
His Arg Ser Leu Phe Thr Gln Gln Pro Phe Cys Lys Arg Arg Arg Gln
305 310 315 320
Gln Glu Gln Arg Gly Arg Ala Ile Ser Arg Glu Ser Asn Pro Tyr Pro
325 330 335
Arg Val His Ser Ser Gln Ser Arg Lys Gly Glu Asp Ser Arg Ile Gln
340 345 350
Glu Asp

<210> 32245
<211> 70
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE

<222> (41)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32245
Arg Asp Met Glu Asn Ser Pro Leu Cys Pro Ala Arg Phe Ile Ser Ser
1 5 10 15
Glu Asp Gly Thr Arg Arg Glu Phe Lys Lys Ser Lys His Asp Asp Lys
20 25 30
Arg Lys Ala Ile Thr Leu Cys Pro Xaa Phe His Glu Leu Phe Ser Ala
35 40 45
Pro Ile Thr Leu Val Glu His Val Gln Val Glu Pro Phe Asp Pro Leu
50 55 60
Leu Lys Ser Thr Gln Leu
65 70

<210> 32246
<211> 86
<212> PRT
<213> A.fumigatus

<400> 32246
Gly His Asp Ile Gly Tyr Pro Thr Trp His Gln Lys Met Ala Leu His
1 5 10 15
Gln Phe Asp Tyr Leu Phe Ala Leu Gly Thr Ile Phe Ala Phe Leu Asp
20 25 30
Ala Tyr Asn Ile Gly Ala Asn Asp Val Ala Asn Ser Trp Ala Thr Ser
35 40 45
Val Ser Ser Arg Ser Leu Gln Tyr Trp Gln Ala Met Val Leu Ala Ser
50 55 60
Ile Met Glu Phe Ser Gly Arg Tyr Val Cys Ser Gly Thr Gly Ile Ala
65 70 75 80
Phe Pro Phe Gly Gly Tyr
85

<210> 32247
<211> 178
<212> PRT
<213> A.fumigatus

<400> 32247
Leu Phe Cys Asn Ser Ile Gly Val Gly Ala Arg Val Ala Asp Thr Ile
1 5 10 15
Arg Thr Lys Ile Val Asp Val Lys Ala Phe Glu Glu Asn Pro Ala Leu
20 25 30
Leu Met Leu Gly Met Val Cys Ala Val Thr Ala Ser Ser Ile Tyr Leu
35 40 45
Thr Val Ala Thr Arg Leu Gly Met Pro Val Ser Thr Thr His Ser Ile
50 55 60
Met Gly Gly Val Ile Gly Met Gly Ile Ala Ala Leu Gly Ser Asp Gly
65 70 75 80
Ile Gln Trp Trp Gly Gly Asp Ile Asn Ser Gly Val Val Gln Val Phe
85 90 95
Leu Ala Trp Ile Ile Ala Pro Val Leu Ser Gly Ala Phe Gly Ala Ile
100 105 110
Ile Phe Leu Leu Thr Arg Tyr Gly Val Met Glu Arg Lys Asn Ser Val
115 120 125

```
Leu Lys Ala Phe Ile Ser Ile Pro Ile Tyr Phe Gly Ile Thr Ser Ala
    130                 135                 140
Leu Leu Thr Ser Met Val Pro Gly Pro Ser Thr Met Leu Asp Asp Thr
145                 150                 155                 160
Asp Trp His Ser Ala Tyr Arg Val Glu Gly Trp Phe Gln Gln Asn Gln
                165                 170                 175
Ala His
```

<210> 32248
<211> 393
<212> PRT
<213> A.fumigatus

<400> 32248

```
Arg Leu Ser Ser Pro Ser Leu Ser Thr Leu Ala Ser Pro Pro Leu Cys
1               5                   10                  15
Ser Pro Val Trp Ser Pro Ala Leu Ala Arg Cys Leu Met Ile Leu Thr
            20                  25                  30
Gly Thr Val Leu Ile Val Trp Lys Gly Gly Ser Ser Arg Ile Lys Leu
        35                  40                  45
Thr Asp Ser Glu Thr Thr Gly Val Ile Ile Gly Val Gly Ala Ala Val
    50                  55                  60
Ala Leu Leu Val Ala Val Phe Phe Leu Pro Trp Leu Tyr Arg Arg Leu
65                  70                  75                  80
Ile Lys Glu Asp Trp Gln Leu Lys Trp Tyr His Leu Phe Met Gly Pro
                85                  90                  95
Leu Val Leu Arg Arg Gly Glu Val Pro Pro Pro Pro Glu Gly Tyr Lys
            100                 105                 110
Thr Val Gln Asp Tyr Tyr Lys Gly His Lys Thr Leu Glu Glu Leu Glu
        115                 120                 125
Arg Glu Arg Ala Asn Ile Glu Arg Ala Gly Pro Ser Asp Glu Glu Ser
    130                 135                 140
Glu Pro Ala Val Asp Lys Glu Gly Lys Glu Gly Gln Ala Ala Ala Ala
145                 150                 155                 160
Ser Val Glu Ile Glu Glu Pro Lys Phe Thr Leu Ile Gly Pro Arg Pro
                165                 170                 175
Asp Gly Ala Ala Phe Ser Pro Ala Val Leu Phe Trp Gln Phe Arg Arg
            180                 185                 190
Phe Phe Phe Arg Gly Ile Glu Gln Asp Val Val Ser Leu Gln Lys Lys
        195                 200                 205
Arg Asn Ile Leu Thr Gly Asp Leu Glu Met Val His Ala His Ala Arg
    210                 215                 220
His Tyr Asp Asn Lys Ala Glu Tyr Met Tyr Ser Phe Leu Gln Val Met
225                 230                 235                 240
Thr Ala Ser Thr Ala Ser Phe Thr His Gly Ala Asn Asp Val Ser Lys
                245                 250                 255
Tyr Val Ser Ser Arg Leu Cys Val Leu Lys Pro Ala Asp Arg Phe Ile
            260                 265                 270
Gln Arg Cys Trp Ser Leu Cys His His Leu Leu Cys Leu Val Asn Gln
        275                 280                 285
Pro Ala Gln Val Gln Glu Ser Arg Ser Val Leu Asp Pro Val Ser Ser
    290                 295                 300
His Phe Asp Ile His Arg His Ile Leu Ile Asn Leu Arg Ala Phe Gly
305                 310                 315                 320
Gly Ala Ala Ile Val Ile Gly Leu Trp Thr Tyr Gly Tyr Asn Ile Met
```

```
                325                 330                 335
Arg Asn Leu Gly Asn Arg Ile Thr Leu His Ser Pro Ser Arg Gly Phe
            340                 345                 350
Ser Met Glu Leu Gly Ser Ala Ile Thr Val Ile Met Ala Thr Lys Leu
        355                 360                 365
Ser Met Leu His Pro Leu Cys Phe Thr Asp His Asn Arg Val Phe Thr
    370                 375                 380
Thr Gly Leu Glu Gly Ala Ala Leu Ile
385                 390
```

<210> 32249
<211> 115
<212> PRT
<213> A.fumigatus

<400> 32249

```
Arg Thr Leu Ala Gly Pro Arg Ala Cys Asn Lys Lys Asp Pro Val Thr
1               5                   10                  15
His His His Phe Gly Phe Cys Tyr Thr Ser Leu Ala Phe Ser Glu Val
            20                  25                  30
Leu Ile His Ser Val Met Ser Pro Ile Asn Pro Ile Ile Pro Gly Phe
        35                  40                  45
Ala Pro Asp Pro Ser Val Val Lys Val Gly Glu Trp Phe Phe Leu Ile
    50                  55                  60
Asn Ser Ser Phe His Leu Phe Pro Gly Leu Pro Ile Tyr Ala Ser Gln
65                  70                  75                  80
Asp Leu Val Ser Trp Arg His Ile Gly Ser Arg Ser Ser Arg Asp Glu
                85                  90                  95
Ile Thr Ser Ala Lys Leu Met Gln His Gln Glu Thr Gln Leu Ile Ala
            100                 105                 110
Asn Leu Ser
        115
```

<210> 32250
<211> 472
<212> PRT
<213> A.fumigatus

<400> 32250

```
Asn His Gln Cys Lys Thr Asn Ala Thr Pro Gly Asn Ala Ile Asn Arg
1               5                   10                  15
Gln Ser Gln Leu Ser Leu Ser Arg Ser Lys Thr Glu Leu His Pro Leu
            20                  25                  30
Pro Thr Gly Glu Val Leu Val Ala Thr Gly Gly Leu Tyr Ala Pro Thr
        35                  40                  45
Ile Arg Tyr His Asp Gly Thr Phe Tyr Val Val Cys Thr Asn Val Val
    50                  55                  60
Arg Thr Val Thr Gly Asp Ser Thr Gln Asn Phe Ile Ile Ser Ser Lys
65                  70                  75                  80
Asp Ile Trp Ala Asp Ser Trp Ser Asp Pro Val Tyr Phe Glu Phe Asp
                85                  90                  95
Gly Ile Asp Pro Ser Leu Phe Phe Asp Asp Asp Gly Lys Thr Tyr Ile
            100                 105                 110
Gln Gly Ser Ala Ala Pro Gly Pro Phe Thr Thr Ile Asn Met Phe Glu
        115                 120                 125
Ile Asp Leu Gly Ser Gly Arg Lys Leu Ser Glu Glu Arg Thr Ile Trp
```

```
    130                 135                 140
Arg Gly Thr Gly Gly Ile Tyr Pro Glu Gly Pro His Leu Tyr Lys Gln
145                 150                 155                 160
Lys Gly Tyr Tyr Tyr Val Val Ile Ala Glu Gly Gly Thr His Glu Gly
                165                 170                 175
His Met Val Thr Met Ala Arg Ser Thr Asp Ile Trp Gly Pro Tyr Glu
            180                 185                 190
Gly Cys Pro Asp Asn Pro Val Leu Thr Ala Arg Asp Thr Asp Glu Tyr
        195                 200                 205
Ile Gln Tyr Thr Gly His Cys Asp Val Phe Gln Asp Asp Arg Asp Gln
    210                 215                 220
Trp Trp Cys Thr Cys Leu Gly Val Arg Lys Asp Lys Asn Gly Arg Tyr
225                 230                 235                 240
Val Met Gly Arg Glu Thr Phe Leu Thr Gln Gly Arg Trp Asp Gly Asp
                245                 250                 255
Trp Leu Ser Leu Asp Gln Val Lys Pro Met Pro Ser Gly Leu Leu Ser
            260                 265                 270
Arg Gly Glu Gly Lys Lys Leu Val Ala Asn Pro Ser Val Asp Tyr Val
        275                 280                 285
Tyr Ile Arg Asp Ala Ile Leu Ser Asn Tyr Thr Leu Pro Ser Ser Ala
    290                 295                 300
Ser Asp Gly Leu Thr Leu Thr Ala Ser Ser Ala Asp Leu Ser His Pro
305                 310                 315                 320
Glu Lys Ser Pro Ser Phe Ile Gly Lys Arg Gln Arg His Leu Asp Gly
                325                 330                 335
Cys Ser Gly Val Glu Leu Asp Ile Val Glu Ala Thr Trp Met Ala Thr
            340                 345                 350
Lys Leu Arg Ala Gly Met Ala Cys Tyr Lys Asp Glu His Arg Phe Leu
        355                 360                 365
Arg Ile Tyr Tyr Asp Ala Thr Glu Leu Ala Ile Val Thr Glu Thr Ile
    370                 375                 380
Asn Lys Pro Lys Gly Ile Cys Arg Gln Glu Arg Leu Thr Leu Glu Ser
385                 390                 395                 400
Leu Pro Lys Ser Ile Ala Phe Arg Ile Gln Tyr Thr Glu Gln Glu Tyr
                405                 410                 415
Arg Leu Phe His Thr Val Gly Asn Ala Gly Gln Ala Asn Trp Lys Cys
            420                 425                 430
Val Ser Thr Ile Asp Thr Leu Asn Leu Thr Gly Pro Asp Phe Thr Gly
        435                 440                 445
Pro Val Ile Gly Val Phe Ala Val Ala Glu Ser Thr Asp Thr Glu Val
    450                 455                 460
Arg Phe Arg Asn Leu Thr Ile Cys
465                 470
```

<210> 32251
<211> 111
<212> PRT
<213> A.fumigatus

<400> 32251

```
Val Val Thr Ala Ala Pro Ser Ser Arg Ser Cys Thr Ala Leu Leu Thr
1               5                   10                  15
Thr Cys Gln Pro Gly Leu Cys Ile Pro Ile Gln Val Pro Tyr Asn Ser
            20                  25                  30
Ile Leu Gln Leu Ser Val Ser Met Glu Ser Val Arg Gln Ser Cys Arg
        35                  40                  45
```

```
Pro Lys His Gln Val Leu Val Leu Lys Cys Tyr Pro Gln Tyr Gln Lys
    50                  55                  60
Gly Val Gln Asp Val Lys Pro Asn Ser Ser Glu Leu Ser Tyr Leu Leu
65                  70                  75                  80
Tyr Tyr Val Ser Thr Arg Arg Ser Lys Leu Thr Lys Val Gly Ala Phe
                85                  90                  95
Leu Glu Lys Arg Ala Ala Arg Asp Val Trp Arg Asn Lys Leu Gly
            100                 105                 110
```

<210> 32252
<211> 445
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (444)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32252

```
Val Pro Ser Glu Pro Ala Arg Ser His Gln Pro Ser Arg Trp Gln Ser
1               5                   10                  15
Pro Leu Thr Tyr Leu Gly Ile Leu His Arg Asn Val Gln Val Thr Leu
            20                  25                  30
Gln Ile Leu Thr Ala Leu Ile Glu Lys Val Pro Arg Asp Leu Pro Ile
        35                  40                  45
Tyr Ala Arg Ser Val Met Asn Val Leu Glu Thr Val Leu Arg Ser Gly
    50                  55                  60
Asp Leu Ser Met Val Glu Glu Ser Ile Ser Thr Phe Glu Thr Phe Cys
65                  70                  75                  80
Gln His Gln Asp Met Ala Ala Leu Ser Ala Glu Gln Asp Phe Ala Ser
                85                  90                  95
Gln Tyr Arg Glu Val Val Arg Thr Tyr Ala Asp Phe Ala Asp Gln Thr
            100                 105                 110
Lys Ser Val Ser Gln Leu Lys Thr Ala Pro Ser Ser Pro Met Val Ile
        115                 120                 125
Arg Trp Arg Thr Ala Gly Leu Arg Ala Ile Lys Gly Val Val Ser Ser
    130                 135                 140
Glu Ala Gly Leu Ala Ala Asp Gly Gly Asp Ser Leu Arg Ile Leu Leu
145                 150                 155                 160
Pro Val Ile Leu Glu Cys Leu Tyr Asn Gly Asp Asp Ser Leu Leu Ala
                165                 170                 175
Ser Leu Glu Leu Arg Leu His Glu Ser Glu Lys Asn Glu Pro Ala Leu
            180                 185                 190
Gly Arg Arg Arg Arg Ile Ser Thr Ala Thr Val Gln Thr Val Asp Ala
        195                 200                 205
Met Asp Gly Asp Pro Ala Leu Ala Ser Gln Ser Ala Ala Asp Val Asp
    210                 215                 220
Arg Gln Ala Glu Met Asp Met Arg Leu Leu Ala Leu Arg Cys Leu Glu
225                 230                 235                 240
Arg Ile Val Val Thr Gly Ser Ser Arg Gly Gln Ile Arg Val Thr Thr
                245                 250                 255
Lys Val Val Leu Gln Phe Ile Leu Gly Asn Ser Pro Leu Ser Glu Asp
            260                 265                 270
Gly Lys Pro Met His Met Asp Ser Thr Gly Gly Trp Ala Thr Ser Leu
        275                 280                 285
```

```
Val Glu Leu Val Ala Lys Trp Cys Pro Val Gln Val Arg Phe Ile Ile
    290                 295                 300
Leu Val Ser Ala Met Glu Met Leu Leu Glu Asn Gln Pro Ser Glu Glu
305                 310                 315                 320
Thr Leu Gln Arg Ser His Ala Leu Ile Tyr Leu Ile Asp Trp Leu Leu
                325                 330                 335
Lys Ser Pro Val Asn Met Ile Gly Leu Ser Val Ile Asp Ile Leu Leu
            340                 345                 350
Gly Leu Met Gln Phe Met Ser Thr Leu Leu Ser Arg Pro Ala Ser Ala
        355                 360                 365
Arg Ser Ala Glu Gln Gly Leu Asp Glu Lys Leu Gly Asp His Asp Leu
    370                 375                 380
Val Leu Ser Pro Glu Arg Leu Lys Met Leu Ala Leu Leu Gln Arg Thr
385                 390                 395                 400
Ile Gly Asp Leu Thr Thr His Ile Tyr Tyr Gly Asp Gln Val Val Asp
                405                 410                 415
Met Val Arg Thr Ile Leu Thr Arg Val Lys Pro Ser Ser Ser Pro Arg
            420                 425                 430
Gly Trp Lys Val Pro Lys Arg Leu Ala Gln Gly Xaa Phe
        435                 440                 445
```

<210> 32253
<211> 181
<212> PRT
<213> A.fumigatus

<400> 32253

```
Asp Leu Trp Thr Phe Gln Pro Ala Val Val Lys Thr Asn Tyr Trp Ala
1               5                   10                  15
Ile Lys Ala Leu Asn Ala Ser Arg Ser Ala Trp Met Ser Ala Trp Ser
            20                  25                  30
Phe Arg Val Trp Arg Ser Ala Ser Ser Leu Gln Thr Val Ser Tyr Leu
        35                  40                  45
Val Phe Thr Pro Val Ile Glu Thr Arg Thr Gly Gln Ile Val Val Arg
    50                  55                  60
Pro Pro Arg Phe Gly Pro Gly Ser Ser Asp Arg Pro Pro Pro Pro Ser
65                  70                  75                  80
Pro Tyr Leu His Leu Ala Gly Ala Ser Pro Ala Pro Ser Pro Ala Ser
                85                  90                  95
Arg Val Ser Ala Ser Gly Ser Pro Arg Pro Ala Gly Ser Pro Cys His
            100                 105                 110
Trp Ser Ser Cys Pro Gly Gly Ala Ser Ala Arg Gln Met Val Ser Trp
        115                 120                 125
Ala Ala Leu Ala Thr Thr Pro Pro Gly Cys Glu Ser Arg Ser Ser His
    130                 135                 140
Ala Ser Ala Ala Arg Cys Gly Trp Pro Arg Gly Cys Gly Ser Pro Pro
145                 150                 155                 160
Arg Val Ala Pro Phe Pro Pro Arg Asn Ala Ala Ala Pro Ala Ala Ala
                165                 170                 175
Pro Leu Pro Phe Pro
            180
```

<210> 32254
<211> 282
<212> PRT
<213> A.fumigatus

<400> 32254
Gly Arg Gln Thr Met Ala Phe Arg Leu Ser Ser Ser Arg Pro Pro Pro
1 5 10 15
Leu His Ile Glu Ser Asn Gly Arg Thr Ala Ser Ala Ser Ser Ser Asp
20 25 30
Ser Lys His Pro Lys Thr Pro Gly Asn Lys Ile Ser Ser Phe Phe Gly
35 40 45
Trp Lys Ala Val Thr Thr Ser Pro Ser Ala Glu Ser Ser Ser Thr Glu
50 55 60
Ile Ser Asp Ser Gly Arg Ser Pro Leu Pro Ser Pro Met Pro Pro Ser
65 70 75 80
Met Pro Thr Thr Ser Phe Ser Ile Thr Pro Ser Thr Thr Val Pro Phe
85 90 95
Asp Pro Thr Arg Val Pro Ala Arg Asn Pro Ser Leu Ser Gly Ala Ser
100 105 110
Ile Leu Glu Ala Ala Ser Ala Ser Lys Leu Ala Asp Leu Glu Asn Glu
115 120 125
Leu Arg Glu Ile Ser Ser Glu Leu Ala Gly Ser Ile Arg Arg Glu Met
130 135 140
Glu Leu Glu Asp Leu Val Glu Arg Leu Gln Ser Glu Ile Pro Gln Asp
145 150 155 160
Ala Asn Arg Arg Thr Ser Asp Tyr Phe Ser Asp Ser Gly Thr Ser Ser
165 170 175
Ile Arg Tyr Ile Tyr Asp Ala Ser Gly Lys Ile Asp Asp Leu Asp Lys
180 185 190
Tyr Arg Arg Ala Ala Glu Gln Glu Arg Ala Gln Leu Lys Val Glu Leu
195 200 205
Ser Gln Lys Trp Gln Glu Glu Arg Ala Arg Arg Ala Ala Thr Glu Ser
210 215 220
His Val Gln Ile Leu Glu Ser Gln Val Asn Gln Val Trp Phe Pro Pro
225 230 235 240
Leu Val Leu Ser Ala Leu Ala Gln Leu Met Trp Ser Val Thr Thr Arg
245 250 255
Glu Ser Arg Val Leu Arg Pro Ile Ile Gln Gly Ser Gly Ala Arg Asp
260 265 270
Cys Ser Gly Arg Tyr Pro Gln Lys Thr Gly
275 280

<210> 32255
<211> 111
<212> PRT
<213> A.fumigatus

<400> 32255
Pro Arg Ala Glu Asp Ala Lys Arg Trp His Ser Val Tyr His Pro Ala
1 5 10 15
Ala His Arg Leu Cys Thr Ser Ser Pro Thr Val Glu Pro His Arg Pro
20 25 30
Ala Pro Arg Thr Arg Asn Ile Pro Arg Pro Leu Gly Thr Lys Ser Ala
35 40 45
Pro Phe Ser Ala Gly Lys Pro Ser Pro His Arg Pro Ala Arg Ser Pro
50 55 60
Arg Ala Pro Arg Ser Arg Ile Arg Ala Gly Pro Leu Ser His Leu Arg
65 70 75 80
Cys Leu Leu Gln Cys Pro Pro Pro Pro Ser Pro Ser Pro Pro Arg Pro

```
                85                  90                  95
Gln Ser His Leu Ile Pro Leu Gly Ser Arg Pro Ala Thr Pro Pro
            100                 105                 110

<210> 32256
<211> 523
<212> PRT
<213> A.fumigatus

<400> 32256
Cys Gly Gln Leu Arg Arg Glu Arg Val Glu Ser Ser Asp Leu Ser Ser
1               5                  10                  15
Lys Ala Arg Glu Leu Glu Ile Ala Leu Glu Asp Thr Arg Arg Lys Leu
            20                  25                  30
Ala Glu Glu Arg Gln Ile Lys Asp Asn Phe Glu Asp Leu Leu Thr Ala
        35                  40                  45
Met Arg Val Glu Leu Glu Gln Leu Arg Asn Glu Arg Asp His Leu Arg
    50                  55                  60
Asp Asn Val Ile Pro Gln Leu Gln Gln Gln Gln Gln Gln Pro Pro Gln
65                  70                  75                  80
Ser Thr Pro Ala Pro Glu Ser Ser Glu Ile Gln Arg Leu Leu Gly Glu
                85                  90                  95
Ile Glu Ala Leu Lys Ile Glu Asn Ala Ser Leu Ala Gln Leu Gln Gly
            100                 105                 110
Ser Arg Phe Ala Ser Ile Ala Glu Glu Gly Gly Leu Pro Gln Arg Arg
        115                 120                 125
Pro Ala Gly Leu Gly Leu Ser Arg Ser Asn Ser Leu Ala Arg His Ser
    130                 135                 140
Lys Ser Ser Gly Val Gly Gly Leu Ser Arg Ser Asn Ser Leu Ser Arg
145                 150                 155                 160
Ser Asn Ser Val Ser Thr Lys Asp Arg Pro Asp Arg Glu Thr Leu Ala
                165                 170                 175
Asp Arg Met Glu Asp Val Glu Ala Gln Arg Asp Ala Leu His Gln Ala
            180                 185                 190
Leu Arg Tyr Leu Leu Met Arg Gln Glu Gln Gln Ala Arg Glu Tyr Glu
        195                 200                 205
Lys Arg Leu Lys Leu Met Glu Leu Glu Leu Ala Arg Ala Gln Glu Leu
    210                 215                 220
Gly Ser Pro Arg Arg Leu Gly Tyr Glu Arg Glu Val Arg Asn Leu Arg
225                 230                 235                 240
Glu Glu Val Asn His Leu Arg Gln Arg Ala Glu Asp Ala Leu Glu Gln
                245                 250                 255
Lys Trp Gln Cys Glu Lys Gly Leu Ala Gly Leu Lys Met Asp Leu Asp
            260                 265                 270
Arg Ala Glu Gln Glu Thr Thr Ser Leu Arg Val Leu Leu Gln Glu His
        275                 280                 285
Asp Ile Ala Phe Pro Glu Gly Thr Glu Ser Glu Arg Asp Gly Phe Ala
    290                 295                 300
Glu Val Ile Ala Thr Ser Ser Tyr Leu Glu Met Ala Tyr Lys Gln Leu
305                 310                 315                 320
Gln Ala Glu Arg Glu Val Val Glu Ala Ser Ala Ala His Ser Pro Leu
                325                 330                 335
Val Glu Ser Glu Ala Phe Ala Ala Ser Ile Ser Arg Thr Glu Ala Leu
            340                 345                 350
Ala Asn His Val Gln Gln Gln Leu Gln Arg Asn Asn Ser Leu Arg Asn
        355                 360                 365
```

```
Arg Leu Ala Lys Ala Ile Gly Lys Gly Glu Lys Asp Gln Gln Leu Ser
    370                 375                 380
Ala Ala Arg Ile Asn Glu Leu Gln Ala Arg Leu Lys Glu Met Glu Glu
385                 390                 395                 400
Ala Leu Leu Leu Ala Gln Gln His Ser Glu Glu Glu Met Ala Arg His
                405                 410                 415
Glu Glu Glu Ile Arg Asn Leu Glu Ala Ser His Asn Ala Gln Leu Met
            420                 425                 430
Arg Val Lys Asn Gly Ser Arg Ser Pro Ala Ala Leu Ser Pro Lys Pro
        435                 440                 445
Pro Ser Ser Pro Phe Gly Ala Arg Ser Pro Arg Leu Asp Lys Thr Thr
    450                 455                 460
Ser Gly Lys Gly Ile Pro Leu Asp Glu Ala Ile Gln Arg Gln Thr Leu
465                 470                 475                 480
Glu Lys Arg Val Lys Glu Leu Glu Lys Leu Leu Arg Asp Ala Asp Thr
                485                 490                 495
Glu Met Glu Glu Val Val Gly Arg Met Asn Arg Ala Gln Ile Glu Val
            500                 505                 510
Ala Glu Leu Gln Ser Asp Arg Tyr Val Phe Leu
        515                 520
```

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<210> 32257
<211> 193
<212> PRT
<213> A.fumigatus

<400> 32257

```
Leu Asn Ala Met Glu Leu Trp Thr Trp Ile Leu Phe Gln Ala His Gln
1               5                   10                  15
Met Pro Ile His Thr Thr Gly Leu Ser Gly Arg Tyr Gln Cys Leu Cys
            20                  25                  30
Pro Tyr Leu Ser Val Val Gln Lys Met Thr Asp Leu Cys Leu Leu Phe
        35                  40                  45
Gln Lys Val Leu Asn Leu Val Leu Val Ala Phe His Ala Cys Met Ala
    50                  55                  60
Thr Leu Thr Ala Ala Ser Ile Thr Pro Ala Tyr Glu Asp Ile Ala Ile
65                  70                  75                  80
Glu Phe Gly Lys Ser Val Gln Ser Ala Ser Tyr Leu Thr Ser Leu Gln
                85                  90                  95
Ile Ala Ile Leu Gly Gly Ala Pro Leu Phe Trp Lys Pro Leu Ser Asn
            100                 105                 110
Arg Phe Gly Arg Arg Pro Ile Phe Leu Leu Ser Leu Ile Ile Ser Leu
        115                 120                 125
Ile Cys Asn Val Gly Cys Ala Lys Ser Pro Thr Tyr Gly Ser Met Ala
    130                 135                 140
Ala Cys Arg Ala Leu Val Ala Phe Phe Ile Ser Pro Ala Ala Ala Ile
145                 150                 155                 160
Gly Ser Ala Val Val Thr Glu Thr Phe Phe Lys Lys Glu Arg Ala Lys
                165                 170                 175
Tyr Met Gly Val Phe Thr Thr Gly Met Gly Gly Ser Met Gly Val Ser
            180                 185                 190
Ile
```

<210> 32258
<211> 422

<212> PRT
<213> A.fumigatus

<400> 32258

```
Arg Asn Pro Ser Glu Ala Leu Ser Ser Ser Phe Asp Pro Ser Phe Ser
1               5                  10                  15
Val Ser Leu Leu Gly Asn Val Ser Arg Glu Ile Gly Ser Ala Leu Ala
            20                  25                  30
Asp Gly Leu Asn Arg Leu Asp Leu Ser Gln Leu Ser Glu Ser Ser Ala
        35                  40                  45
Ser Ser Ser Ser Glu Ser Ala Ser Phe Asp Met Ser Ser Ser Glu Gly
    50                  55                  60
Ala Pro Glu Ser Trp Ile Ser Ser Phe Cys Ser Leu Met Gly His Glu
65                  70                  75                  80
Phe Phe Ala Glu Val Ser Glu Asp Phe Ile Glu Asp Asp Phe Asn Leu
                85                  90                  95
Thr Gly Leu Gln Ser Gln Val Pro Met Tyr Lys Glu Ala Leu Glu Met
            100                 105                 110
Ile Leu Asp Val Glu Pro Glu Glu Asp Glu Asp Glu Glu Glu Glu Glu
        115                 120                 125
Glu Glu Glu Glu Glu Asp Asp Asp Glu Ile Leu Gly Asp Glu Arg Pro
    130                 135                 140
Pro Gly Tyr Arg Arg Ala Gly Asp Arg Arg His Ala Arg Val Ala Ser
145                 150                 155                 160
Asp Leu Ser Val Ile Glu Ser Ser Ala Glu Leu Leu Tyr Gly Leu Ile
                165                 170                 175
His Gln Arg Tyr Ile Thr Ser Arg Pro Gly Ile Gln Gln Met Leu Glu
            180                 185                 190
Lys Tyr Glu Met Gln His Phe Gly Val Cys Pro Arg Thr Tyr Cys Asn
        195                 200                 205
Gly Ser Lys Val Leu Pro Val Gly Cys Ser Asp Thr Pro Gly Gln Glu
    210                 215                 220
Thr Val Lys Leu Phe Cys Pro Ser Cys Gln Asp Leu Tyr Thr Pro Pro
225                 230                 235                 240
Asn Ser Arg Phe His Ser Val Asp Gly Ala Phe Phe Gly Thr Thr Phe
                245                 250                 255
Gly Tyr Leu Phe Phe Met Thr Phe Pro Asp Leu Asp Ile Gly Pro Arg
            260                 265                 270
Leu Asp Pro Ser Met Leu Thr Ala Ala Pro Thr Asn Ala Asn Asn Gln
        275                 280                 285
Ser Arg Ser Ser Ser Leu Thr Ser Gly Val Asn Arg Ala Thr Pro Asp
    290                 295                 300
Leu Pro Pro Pro Pro Pro Asn Gln Pro Thr Glu Ile Asn Gly Val Arg
305                 310                 315                 320
Thr Ser Asn Phe Cys Pro Gly Leu Gly Pro Gly Arg Ile Tyr Glu Ser
                325                 330                 335
Lys Ile Tyr Gly Phe Arg Val Ser Glu Arg Ser Arg Val Gly Pro Arg
            340                 345                 350
Met Lys Trp Leu Arg Met Lys Pro Ala Asp Ile Arg Glu Leu Asp Glu
        355                 360                 365
Leu Ala Gln Tyr Glu Ala Ile His Gly Ser Ala Asn Asp Gly Gly Asp
    370                 375                 380
Thr Glu Met Asn Ile Glu Ala Gln Asn Ala Ala Ala Ile Ala Ala Arg
385                 390                 395                 400
Lys Lys Ala Pro Met Arg Arg Arg Arg His His Pro Asp Gln Met Ser
                405                 410                 415
```

Ile Asn Gly Ala Glu Gly
420

<210> 32259
<211> 501
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (491)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32259
Phe Glu Ala Ser Ala Ala Ser Lys Thr Pro Arg Thr Arg Met Pro Arg
1 5 10 15
Ser Val Pro Pro Asn Ile Ser Pro Leu Pro Gln Lys Asp Asp Ser Ser
20 25 30
Leu Ser Ala Ser Glu Tyr Pro Asn Ile Ala Ser Arg Thr Ala Pro Pro
35 40 45
Ser Pro Ser Ala Val Arg Arg Thr His Ser Leu Leu Ser Glu Thr His
50 55 60
Thr Gly Tyr Gln Ser Leu Glu Ser Gln Met Glu Ala Gly Glu Thr Thr
65 70 75 80
Ser Leu Leu Gly Lys Thr Arg Glu Asn His Arg Gly Thr Pro Arg Arg
85 90 95
Ser Tyr Thr Ser Ile Ser Ala Ile Pro Thr Pro Asp Asn Tyr Leu Arg
100 105 110
His Ser Leu Thr Ser Gly Ser Leu Arg Arg Ser Arg His His Ser Arg
115 120 125
Ala Asn Ser Gln Ser Leu Arg Phe Ser Arg Arg Ser Ser Ile Asp Asp
130 135 140
Glu Gln Asp Glu Asp Leu Pro Pro Ser Ala Lys Asp Gly Met Thr Ala
145 150 155 160
Ser Phe Leu Asp Glu Arg Asn Trp Tyr Asp Gln Phe Thr Ser Thr Asp
165 170 175
Trp Val His Asp Ser Ile Ala Asp Gly Ala Arg Leu Arg Glu Leu Arg
180 185 190
Lys Arg Lys Asp Phe Arg Gly Arg Leu Leu Ala Ala Phe Asp Gly Ala
195 200 205
Gln Gly Trp Ile Leu Val Ala Leu Ile Gly Cys Ile Thr Ala Ala Ile
210 215 220
Ala Tyr Phe Val Asp Val Thr Glu Asp Phe Val Phe Asp Leu Lys Glu
225 230 235 240
Gly Phe Cys Thr Thr Arg Trp Phe His Asn Arg Glu Ser Cys Cys Ala
245 250 255
Asp Thr Leu Asp Cys Ser Arg Trp Arg Ser Trp Ser Gln Ile Leu Ser
260 265 270
Pro Ser Gly Ser Asp Asn Gly Trp Val Asp His Ser Met Phe Val Leu
275 280 285
Trp Val Val Ile Leu Ser Val Ile Ser Cys Tyr Leu Thr Leu Phe Thr
290 295 300
Lys Thr Val Val Pro Ser Ser Val Ser Leu Thr Thr Leu Asp Glu Asn
305 310 315 320
Leu Gly Ala Gly Thr Ser Arg Gly Thr Asn His Asp Ala Ser Glu Asp
325 330 335

```
Asn Ser Pro Ala Ser Leu Ile Asn Pro Lys Ala His Tyr Pro Thr Ile
            340                 345                 350
Ser Thr Arg Pro Ala Met Thr Tyr Tyr Ser Ala Ala Gly Ser Gly Val
        355                 360                 365
Ala Glu Val Lys Val Ile Asn Ser Gly Phe Val Leu His Gly Tyr Leu
    370                 375                 380
Gly Phe Lys Thr Leu Val Ile Lys Thr Ile Ala Leu Val Phe Ser Val
385                 390                 395                 400
Ser Ser Gly Leu Ser Leu Gly Lys Glu Gly Pro Tyr Val His Ile Gly
                405                 410                 415
Ala Cys Val Gly Asn Ile Ala Cys Arg Leu Phe Ser Lys Tyr Asn Asp
            420                 425                 430
Asn Asp Gly Lys Arg Arg Glu Val Leu Ser Ala Ser Ala Ala Ser Gly
        435                 440                 445
Val Ala Val Ala Phe Gly Ala Pro Ile Gly Gly Val Leu Phe Ser Leu
    450                 455                 460
Glu Lys Ile Ser Tyr Tyr Phe Pro Pro Lys Thr Leu Phe Arg Thr Phe
465                 470                 475                 480
Phe Cys Cys Ile Ala Ala Ala Leu Ser Leu Xaa Ile Pro Gln Pro Leu
                485                 490                 495
Arg His Tyr Gln Arg
            500
```

<210> 32260
<211> 750
<212> PRT
<213> A.fumigatus

<400> 32260

```
Phe Leu Ser Pro Pro Ala Ala Leu Gly Cys Tyr Asp Phe Leu Ser Val
1               5                   10                  15
Leu Leu Thr Lys Ile Pro Phe Ser Phe Phe Leu Ser Leu Leu Ile Asn
            20                  25                  30
Arg Arg Ser Arg Leu Ala Leu His Asn Met Ser Ala His Thr Ala Lys
        35                  40                  45
Arg Arg Lys Leu Ser Pro Arg Pro Glu Asn Gly Ser Thr Gln Lys Phe
    50                  55                  60
Ser Ser Asp Gly Arg Asp Ala Glu Leu Ser Lys Ser Ile Arg Ser Asn
65                  70                  75                  80
Arg Lys Val Gln Asp Asp Arg Ala Gly Glu Leu Ala Leu Ala Ser Gly
                85                  90                  95
Leu Tyr Lys Ser Ser Phe Phe Lys Leu Gln Leu Asp Glu Leu Leu Ser
            100                 105                 110
Ser Ser Lys Pro Asn Tyr Asp Lys Gln Val Ser Arg Val Gln Asp Thr
        115                 120                 125
Leu His Arg Val Lys Glu Ala Ile Glu Gln Leu His Glu Arg Pro Pro
    130                 135                 140
Met Leu Pro Cys Glu Ala Glu Arg Glu Leu Arg Thr Thr His Gly Ile
145                 150                 155                 160
Val Val Pro Phe Pro Asp Pro Arg Pro Ser Arg Glu Thr Lys Tyr Ser
                165                 170                 175
Val Ser Tyr Val Pro Pro Thr Asn Ile Asn Val Val Gly Ser Phe Ala
            180                 185                 190
Ser Lys Thr Gly Ile Lys Gln Thr Glu Lys Tyr Thr Ile Asp Leu Ala
        195                 200                 205
Val Thr Met Pro Arg Ser Leu Phe Gln Glu Lys Asp Tyr Val Asn Tyr
```

```
    210                 215                 220
Arg Phe Phe His Lys Arg Ala Tyr Tyr Ile Ala Cys Leu Ala Ala Gly
225                 230                 235                 240
Leu Arg Glu Ala Gln Asp Leu Gly Leu Asp Val Lys Phe Ala Thr Gln
                245                 250                 255
Glu Gly Asp Ser Leu Arg Pro Val Leu Ile Leu Glu Pro Ser Ser Ala
            260                 265                 270
Thr Ser Ala Leu Ala Leu Ala Arg Ser Gln Ile Arg Val Ile Thr Ala
        275                 280                 285
Ile Glu Asp Asp Leu Phe Pro Ile Ser Arg Thr Leu Pro Thr Lys Asn
    290                 295                 300
Asn Val Arg His Val Ser Ser Glu Asn Thr Gly Asn Ser Glu Pro Thr
305                 310                 315                 320
Pro Phe Tyr Asn Ser Ala Leu Arg Ser Glu Ala Thr Val Gly Ser Tyr
                325                 330                 335
His Lys His Leu His Ser Thr Ile Arg Gln Cys Asp Ala Tyr Gln Asp
            340                 345                 350
Ala Cys Leu Leu Gly Arg Ile Trp Leu Arg Gln Arg Gly Phe Ala Ser
        355                 360                 365
Ser Phe His Met Gly Gly Phe Gly Gly Phe Glu Trp Ala Leu Leu Met
    370                 375                 380
Ser Leu Leu Leu Glu Gly Gly Gly Ala Asn Gly Lys Pro Val Leu Leu
385                 390                 395                 400
Lys Ser Tyr Ser Cys Tyr Gln Leu Phe Lys Ala Thr Ile Gln Phe Leu
                405                 410                 415
Ala Gly Arg Asp Phe Thr Lys Pro Leu Leu Phe Ser Thr Val Asp Glu
            420                 425                 430
Val Ser Val Pro Gly Asp Gly Pro Val Val Tyr Asp Gly Lys Arg Gly
        435                 440                 445
Ile Asn Ile Leu Tyr Lys Met Thr Pro Trp Ser Tyr Ala Phe Leu Arg
    450                 455                 460
His Glu Ala Gly Met Thr Leu Lys Met Leu Asn Glu Ser Arg Asp Asp
465                 470                 475                 480
Asn Phe Glu Lys Val Phe Ile Val Lys Val Asn Glu Pro Met Leu Arg
                485                 490                 495
Phe Asp Arg Ile Ile Val Leu Pro Ser Phe Asp Asn Arg Asn Ile Leu
            500                 505                 510
Gln Ala Ile Arg Asn Gln Arg Ala Ile Tyr Gly Val Leu Leu Arg Ala
        515                 520                 525
Leu Gly Asp Arg Val Lys Leu Ile His Ile Ser Ser Arg Ser Ile Glu
    530                 535                 540
Pro Trp Ser Val Leu Ala Ser Pro Ser Ser Lys Lys Leu Lys Glu Arg
545                 550                 555                 560
Ile Ser Val Gly Leu Leu Met Asn Pro Glu Asn Val Ser Arg Val Val
                565                 570                 575
Asp His Gly Pro Ser Ala Glu Gln Lys Glu Glu Ala Ala Ser Phe Arg
            580                 585                 590
Ser Phe Trp Gly Glu Lys Ala Glu Leu Arg Arg Phe Lys Asp Gly Ser
        595                 600                 605
Ile Leu Glu Ser Leu Val Trp Ser Asp His Pro Ser Ser Lys Ser Ile
    610                 615                 620
Val Phe Gln Ile Leu Ser Tyr Ile Leu Arg Arg His Phe Asn Phe Val
625                 630                 635                 640
Asp Glu Asp Ile His Tyr Ile Gly Asp Glu Phe Glu Glu Arg Leu Asn
                645                 650                 655
Ser Tyr Gly Ser Gly Ile Ile Ser Tyr Thr Ser Pro Ser Phe Gln Leu
```

```
            660                 665                 670
Ile Ala Asp Ala Phe Ser Ser Leu Glu Lys Ser Ile Gln Asp Met Glu
        675                 680                 685
Gly Val Pro Leu Thr Val Arg His Leu Ala Pro Ala Ser Pro Leu Leu
    690                 695                 700
Arg Tyr Ala Ala Leu Arg Val Gln His Pro Ser Ser Ile Ser Gly Glu
705                 710                 715                 720
Arg Val Asp Val Val Leu Gln Phe Glu Ser Ser Ala Arg Trp Pro Asp
                725                 730                 735
Asp Leu Val Gly Phe His Ser Ala Gly Arg Arg Ser Met Tyr
            740                 745                 750
```

<210> 32261
<211> 273
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (239)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32261

```
Val Met Ala Gln Asp His Thr Pro Asp Ala Val Pro Val Asn Glu Lys
1               5                   10                  15
Asp Pro Pro Asn Gln Gln Leu Asp Asp Thr Thr Ser Asp Arg Phe Val
            20                  25                  30
Pro Leu Ala Gly Phe Pro Arg Asp Glu Glu Ser Gly Val Asn Asn Gly
        35                  40                  45
Val Asp Pro Arg Ser Lys Ser Leu Ser Arg Thr Ala Thr Asn Thr Ser
    50                  55                  60
His Ile Gly Thr Leu Ala Ala Arg Thr Leu Ser Leu Val Arg Thr Arg
65                  70                  75                  80
Glu Ser Gly Lys Asp Ile Gly Pro Pro Pro Asp Gly Gly Leu Phe Ala
                85                  90                  95
Trp Thr Gln Val Leu Leu Ala His Phe Val Ile Phe Asn Thr Trp Gly
            100                 105                 110
Tyr Ile Asn Gly Phe Gly Val Phe Gln Thr Tyr Tyr Thr Glu His Leu
        115                 120                 125
Gly Arg Pro Pro Ser Asp Ile Ser Trp Val Gly Ser Ile Gln Ile Phe
    130                 135                 140
Leu Leu Phe Phe Ile Gly Thr Leu Ser Gly Arg Ala Thr Asp Ala Gly
145                 150                 155                 160
Phe Phe Lys Val Thr Leu Ala Thr Gly Ala Leu Leu Glu Val Phe Cys
                165                 170                 175
Ile Phe Met Thr Ser Leu Cys Thr Glu Tyr Trp Gln Leu Phe Leu Thr
            180                 185                 190
Gln Gly Val Gly Gln Gly Ile Gly Cys Gly Leu Met Phe Cys Pro Thr
        195                 200                 205
Val Ala Leu Met Ala Thr Tyr Phe Thr Thr Lys Arg Ala Leu Ala Ile
    210                 215                 220
Gly Ile Val Ala Cys Gly Ser Ala Thr Gly Gly Leu Val Phe Xaa Arg
225                 230                 235                 240
Gly Arg Arg Ala Pro Ala Ala Thr Ser Trp Ile Arg Leu Asp Asn Ala
                245                 250                 255
Arg Ala Gly Leu His His Pro Gly His Ala Pro Pro Pro Arg Trp Phe
```

260 265 270

Phe

<210> 32262
<211> 212
<212> PRT
<213> A.fumigatus

<400> 32262
Asn Asn Gly Cys Arg Pro Gly Arg Ala Ala Arg Trp Trp Asn Gly Pro
1 5 10 15
Pro Ser Arg Ser Cys Arg Thr Cys Phe Leu Pro Ser Gly Cys Ser Ser
20 25 30
Ile Ser Gly Gly Ser Thr Ser Ala Ser Ser Thr Ser Val Ala Leu Ala
35 40 45
Arg Asn Ile Ile Gly Val Ser Glu Thr Thr Ser Val Tyr Ile Leu Leu
50 55 60
Val Met Asn Gly Ile Gly Ile Leu Gly Arg Leu Met Pro Asn Thr Met
65 70 75 80
Ala Asp Trp Tyr Thr Gly Pro Leu Asn Met Leu Ile Pro Phe Ser Leu
85 90 95
Val Thr Gly Leu Val Ser Phe Cys Trp Ala Gly Val Asp Glu Ile His
100 105 110
Gly Leu Tyr Ala Trp Ser Ala Phe Tyr Gly Leu Ala Ala Ala Gly Ile
115 120 125
Gln Ser Leu Phe Pro Ala Thr Leu Thr Ser Leu Thr Thr Asp Leu Lys
130 135 140
Lys Ala Gly Val Arg Met Gly Met Val Leu Ser Val Val Ala Val Ala
145 150 155 160
Ala Leu Ile Gly Ser Pro Ile Ala Gly Ala Leu Val Gln Thr Ala Gly
165 170 175
Gly Gln Tyr Leu Tyr Ala Gln Met Phe Met Gly Ser Ala Ile Leu Ala
180 185 190
Gly Thr Leu Thr Leu Ile Ala Ala Arg Val Ala Lys Leu Gly Phe Thr
195 200 205
Trp His Arg Met
210

<210> 32263
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32263
Pro Thr Val Tyr Leu Ser Gln Glu Asp Val Ser Val Pro Ser Leu Val
1 5 10 15
Leu Ser Leu Ser Ser Ser Thr Pro Pro Tyr Asp Thr Thr Leu Ser Arg
20 25 30
Leu Gln Gln Leu Gln Asp Ser Val Phe Tyr Leu Leu Ile Gly Gly Val
35 40 45
Asn Ser Phe Ser Ser Leu Gln Pro Leu His Ser Trp Ser Phe Tyr Ala
50 55 60
Ile Cys Ala Thr Ser Cys Ile Ser Thr
65 70

<210> 32264
<211> 193
<212> PRT
<213> A.fumigatus

<400> 32264
Arg Ala Arg Tyr Leu Pro Ala Arg Val Val Lys Ile Pro Ala Ser Ser
1 5 10 15
Pro Leu Arg Ser Lys Ser Gln Asp Trp Thr Thr Trp Leu Asn Val Trp
20 25 30
Ala Ile Ala Ile Ala Ser Asp Ile Arg Val Gly Ala Val Ala Met Leu
35 40 45
Thr Ala Met Thr Ala Pro Leu Ala Met Ala Phe Leu Leu Tyr His Thr
50 55 60
Tyr Leu Ile Trp Ala Gly Met Thr Thr Asn Glu Ser Ala Lys Trp Ser
65 70 75 80
Asp Trp Lys Glu Asp Val Ala Asp Gly Leu Val Phe Lys Ser Thr Arg
85 90 95
Ser Glu Ile Tyr Gly Asn Gln Ser His Ser Asp Glu Asp Thr Pro Ala
100 105 110
Gln Arg Thr Trp Pro Val Ser Ser Asp Gln Ile Leu Val Ile Thr Asp
115 120 125
Gly Glu Pro Pro Lys Glu Gly Phe Gln Leu Cys Ser Arg Ser Asn Glu
130 135 140
Ile Leu Gln Lys Asp Asp Pro Gln Ala Pro Val Asp Thr Arg Trp Thr
145 150 155 160
Glu Val Asn Ser Met Arg Glu Ile Asp Asn Ile Tyr Asp Leu Gly Phe
165 170 175
Trp Asp Asn Leu Arg Glu Val Phe His Met Pro Ile Arg Arg Cys Val
180 185 190
Arg

<210> 32265
<211> 693
<212> PRT
<213> A.fumigatus

<400> 32265
Leu Met Ile Asn Ala Trp Ser Ile Cys Tyr Leu Leu Gly Asn Arg Ser
1 5 10 15
Phe Thr Lys His Ile Arg Arg Ala Thr Ser Gly Met Leu Tyr Leu Val
20 25 30
Ile Ser Asp Cys Glu Thr Leu Ser Asp Cys Phe Thr Tyr Asn Arg His
35 40 45
Asn Leu Gly Leu Ser Pro Asp Ile Trp Gln Gly Phe Thr Asp Val Leu
50 55 60
Thr Lys Ala Ile Pro Val Leu Glu Ser Gln Ser Phe Ala Trp Lys Ser
65 70 75 80
Pro Pro Ser Ala Asn Tyr Glu His Ser Ser Ser Asn Leu Ile Ala Tyr
85 90 95
Asn Tyr Phe Ser Leu Val Lys Asp Ile Glu Arg Leu Asn Asp Leu Cys
100 105 110
Thr Ile Ala Arg Asn Leu Leu Ala Thr Thr Lys Lys Ala Gln Asn Ile
115 120 125
Ala Ala Glu Lys Gly Phe Asp Gln Arg Ile Leu Ala Leu Val Asp Thr

```
    130                 135                 140
Cys Val Arg Val Thr Ala Arg Gly Phe Asp Gly Glu Thr Asn Ala Arg
145                 150                 155                 160
Asn Glu Glu Arg Trp Gln Lys Val Val Asn Leu Tyr Lys Arg Leu Leu
                165                 170                 175
Ile Thr Cys Leu Gln Phe Leu His Asn Phe Ile Met His Asn Glu Gln
            180                 185                 190
Arg Lys Met Val Leu Trp Leu Asp Leu Phe Gly Tyr His Ser Thr Gly
        195                 200                 205
Asp Ser Asn Ile Ile Gln Pro Arg Glu Pro Leu Asp Gln Ala Asn Ala
    210                 215                 220
Gln Ala Glu Gly Val Ala Pro Val Val Lys Ile Gly Glu Arg Ile Val
225                 230                 235                 240
Asn Pro Pro Ile Arg Ala Leu Tyr Asp Gln Thr Ala Glu Asp Leu Leu
                245                 250                 255
Leu Glu Thr Ile Ser Asn Phe Pro Arg Glu Pro Ala Thr Ile Lys Glu
            260                 265                 270
Glu Ala Ala Met Leu Leu Leu Ala Asn Ile Lys Asp His Met Glu Lys
        275                 280                 285
Leu Leu Gly Arg Asp Leu Thr Ala Ile Gln Glu Met Gly Lys Asp Pro
    290                 295                 300
Glu Gln Val Lys Glu Ile Arg Ala Ala Leu Thr Ala Ile Leu Gly Ala
305                 310                 315                 320
Lys Val Asp Gly Trp Ser Asp Leu Gln Asp Arg Ala Arg Asp Leu Pro
                325                 330                 335
Pro Ala Leu Pro Glu Asp Glu Pro Pro Arg Lys Lys Ala Ile Leu Thr
            340                 345                 350
Ile Asp Arg Ser Gln Thr Ala Gly Phe Pro Arg Ile Cys Trp Ala Asp
        355                 360                 365
Leu Pro Asp Leu Asn Glu Tyr Gly Ala Leu Ala Ala Gly Asp Ala Pro
    370                 375                 380
Ile Thr Glu Glu Asp Thr Ser Met Pro Arg Ser Ala Gln Ser Ala Ala
385                 390                 395                 400
Glu Thr Leu Gln Glu Ala Lys Asp Glu Leu Met Ala Arg Leu Gln Glu
                405                 410                 415
Ser Ser Gln Ile Ala Asp His Gly Asp Gln Asp Tyr Asp Ala Gly Asp
            420                 425                 430
Ala Gly Thr Ile Gly Asp Asp Asp Ser His Ser Leu Glu Ala Val Ala
        435                 440                 445
Asp Gly Ser Met Glu Glu Glu Glu Glu Glu Asp Asp Glu Asp Asp Glu
    450                 455                 460
Asp Tyr Arg Gly Arg Pro Gly Asp Gln Gln Arg Gly Leu Leu Thr Asp
465                 470                 475                 480
Ile Pro Leu Val Leu Gly Pro Ala Glu Ile Glu Ala Leu Pro Met Ile
                485                 490                 495
Ile Gln Ala Gly Ile Val Asp Ser Phe Gly Leu Lys Gly Gly Glu Arg
            500                 505                 510
Thr Gly Ser Arg Asn Met Gln Ala Leu Arg Cys His Ile Leu Leu Thr
        515                 520                 525
Gln Glu Thr Gly Arg Asn Leu Leu Arg Glu Leu Leu Ile Phe Ile Ala
    530                 535                 540
Ala Trp Asp Leu Pro Asp Asp Glu Leu Tyr Phe Lys Met Met Val Gln
545                 550                 555                 560
Ile Met Asp Ala Val Leu Lys Asn Gly Leu Met Ser His Ala Tyr Ser
                565                 570                 575
Asp Phe Gly Gln Pro Lys Asp Ile Ile Ser Pro Ala Gln Ala Val Val
```

```
            580                 585                 590
Val Lys Ile Leu Thr His Ile Phe Arg Ala Lys Tyr Ser Pro Ala Ser
        595                 600                 605
Val Thr Gly Ala Ala Gln Gln Ser Ala Thr Lys Asn Pro Ala Pro Leu
    610                 615                 620
Ser Arg Val Asp Ile Leu Thr Val Arg Tyr Ile Phe Thr Ile Phe Arg
625                 630                 635                 640
Gly Asn Ile Ile Pro Glu Thr Cys Ala Leu Ile Tyr Leu Gln Gly Gln
                645                 650                 655
Ile Arg Ala Gly Arg Ala Leu Pro Glu Asp Phe Pro Leu Asn Leu Trp
            660                 665                 670
Asp Met Glu Arg Asp Leu Arg Arg Cys Leu Pro Val Phe Gly Val Ala
        675                 680                 685
Leu Leu Trp Leu Gln
    690
```

<210> 32266
<211> 114
<212> PRT
<213> A.fumigatus

<400> 32266

```
His Ala Asp Ser Pro Ile His Pro Lys Ser Phe Val Cys Asn Cys Lys
1               5                   10                  15
Met Ala Ala Asp Glu Val Asn Gly Ala Pro Val Leu Glu Gly His Asp
            20                  25                  30
Thr Lys Ala Phe Pro Lys Ser Val Ala Ala Glu Ala Ser Thr Ser Ser
        35                  40                  45
Leu Ser Ser Asp Glu Pro Arg Arg Tyr Lys Asn Ala Asp Ser Ala Phe
    50                  55                  60
Asp Thr Ser Glu Asp Pro Arg Tyr Tyr Lys Pro Ile Pro Thr Tyr Glu
65                  70                  75                  80
Gly Ile His Arg Trp Asp Pro Asp Phe Glu Trp Thr Glu Glu Glu Glu
                85                  90                  95
Lys Arg Leu Ile Arg Lys Val Leu Gln Thr Gln Phe Ser Leu Tyr Lys
            100                 105                 110
Gln Tyr
```

<210> 32267
<211> 81
<212> PRT
<213> A.fumigatus

<400> 32267

```
Leu Val Leu Ser Arg Val Gln Ser Cys Gln Glu Tyr Leu Lys Met Ala
1               5                   10                  15
Pro Ser Leu Val Glu Asn Val Ala Leu Arg Thr Ala Pro Val Thr Lys
            20                  25                  30
Leu Lys Thr Asp Ala Gly Phe Asn Lys Glu Asn Val Leu Gly Tyr Gly
        35                  40                  45
Glu Ala Tyr Ser His Glu Asn Glu Val Lys Gly Thr Glu Lys Gln Pro
    50                  55                  60
Pro Ala Ser Phe Pro His Tyr Leu Pro Val Trp Asp Asn Glu Thr Glu
65                  70                  75                  80
Arg
```

<210> 32268
<211> 63
<212> PRT
<213> A.fumigatus

<400> 32268
Ala Cys Ser Leu Thr Ser Phe Ser Leu Glu Ile His Asn Asn Asn Tyr
1 5 10 15
His Pro Val Glu Ser Asp Asn Gly Asn Ile Arg Lys Arg Ser Met Leu
20 25 30
Val Glu Tyr Leu Leu Ser Ala Ser Tyr Lys Asp Trp Leu Phe Leu Phe
35 40 45
Asn Leu His Val Ser Ser Lys Leu Ser Arg Leu Gln Ser Ile Leu
50 55 60

<210> 32269
<211> 77
<212> PRT
<213> A.fumigatus

<400> 32269
His Thr Ser Met His Thr Asp Glu Leu Glu Gly Asn Gly Lys Gly Asp
1 5 10 15
Val Ile Leu Phe Glu Pro Ser Thr Ser Glu His Val Ser Thr Arg Thr
20 25 30
Ile Phe Asp Pro Ile Thr Ala Leu Ala Pro Ala Ser Asp Cys Arg Thr
35 40 45
Tyr Ala Ile Gly Tyr Val Asn Asn Leu His Trp Asn Lys Glu Asp Gly
50 55 60
Lys Asp Asp Gly Val Met Gly Met Tyr Ile Val Val Asp
65 70 75

<210> 32270
<211> 374
<212> PRT
<213> A.fumigatus

<400> 32270
Thr Ala Val Val Leu Ser Ala Val Glu Asp Thr Leu Arg Asp Gln Lys
1 5 10 15
Ala Asp Phe Ser Ala Thr Ala Tyr Phe Ala Ala Leu Leu Ala Leu Leu
20 25 30
Ala Gln Ser Val Ser Ala Thr Gln Gly Ile Val Asn Lys Asp Leu Ala
35 40 45
Thr Ser Val Val Tyr Leu Leu Asp Ile Thr Thr Glu Tyr Val Pro Ala
50 55 60
Pro Ile Leu Arg Ser Lys Phe Ser Gln Ile Leu Thr Ser Leu Ala Pro
65 70 75 80
Ala Leu Ser Leu Pro Glu Val Asp Ala Pro Leu Leu Arg Pro Ser Ile
85 90 95
Gly Cys Leu Glu Ser Leu Leu Ile Ala Gln Asp Ala Ala Ser Trp Asn
100 105 110
Leu Pro His Thr Gln Ile Gly Pro Arg Arg Ala Ile Ala Gly Leu Leu
115 120 125

```
Ser Leu Ala Val Asp His Arg Pro Lys Val Arg Lys Arg Ala Gln Glu
    130                 135                 140
Ala Leu Ile Lys Val Leu Lys Asn Pro Pro Pro Ser Pro Ser Leu Asp
145                 150                 155                 160
His Pro Ala Ala Asp Met Cys Ala Glu Thr Gly Leu Arg Thr Leu Gly
                165                 170                 175
Asp Ser Ile Ala Ala Ala Ala Lys His Lys Arg Gly Arg His Asp Ala
            180                 185                 190
Asn Ser Arg Glu Asn His Asp Pro Leu Val Ile His Ser Leu Gln Leu
        195                 200                 205
Val Lys Thr Ile Ala Thr Ala Ser Gly Gly Trp Pro Ser Lys Lys Ile
    210                 215                 220
Glu Pro Leu Cys Glu Leu Leu Met Asn Ala Ser Arg Ser Ser Asn Glu
225                 230                 235                 240
Phe Ile Thr Met Gly Ala Phe Glu Val Phe Glu Val Ile Phe Ser Ser
                245                 250                 255
Met Ala Asp Glu Phe Ser Ser Ser Lys Leu Pro Arg Leu Leu Asp Ala
            260                 265                 270
Ile Ser Glu Leu Lys Pro Ala Gln Asn Asp Ser Gln Leu Leu Pro Pro
        275                 280                 285
Trp Ile Ala Val Leu Ser Arg Gly Tyr Asp Val Ser Ala Gln Ile Ser
    290                 295                 300
Pro Glu Asp Thr Phe Glu Lys Leu Pro Ala Leu Phe Asn Met Ile Ser
305                 310                 315                 320
Gly Tyr Leu Ala Ser Pro Ser Met Asn Ile Arg Val Ser Ala Ser Glu
                325                 330                 335
Cys Leu Ile Ser Phe Leu Ala Asn Cys Ile Pro Lys Asn Val Ile Leu
            340                 345                 350
Glu Pro Ser Val Tyr Asp Glu Lys Thr Val Glu Lys Val Pro Ser Phe
        355                 360                 365
His His Ala Asn Gly Ala
    370

<210> 32271
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32271
Gln Met Thr Leu Pro His Thr His Glu Ser Ser Leu Ile Asp Val Asp
1               5                   10                  15
Ala Thr Leu Gln Ser Leu Leu Glu Arg Glu Asp Thr Asp Arg Asn Met
            20                  25                  30
Gln Ile Thr Ile Glu Asp Ala Gly Pro Lys Val Cys Gly Leu Val Trp
        35                  40                  45
Leu Leu Ala Arg Asn Gly Ala Ser His Ile Ser Ser Asp Gly
    50                  55                  60

<210> 32272
<211> 93
<212> PRT
<213> A.fumigatus

<400> 32272
Gln Gly His Ala His Leu Leu Val Gln Asn Tyr Ala Gly Asp Ile Lys
1               5                   10                  15
```

```
Gly Lys Val Ile Phe Thr Thr Gly Val Ser Pro Gly Ser Leu Gly Ser
            20                  25                  30
His Phe Ala Gln Ser Ile Ala Ala Ala Gly Pro Arg Cys Leu Asn Leu
        35                  40                  45
Ala Gly Arg Asn Arg Ser Lys Ile Gln Gln Ala Ala Asp Glu Ile Lys
    50                  55                  60
Ala Ser His Pro Ser Val Glu Thr His Leu Glu Ile Asp Leu Ala Ala
65                  70                  75                  80
Leu Asp Ser Phe Arg Arg Ala Ala Ser Gln Ile His Ser
                85                  90
```

<210> 32273
<211> 612
<212> PRT
<213> A.fumigatus

<400> 32273

```
Gly Cys Trp Thr Glu Gly Met Trp Leu Gly Leu Ala Ile Gly Pro Glu
1               5                   10                  15
Arg Cys Lys Ser Tyr Phe Glu Arg Arg Leu Ile Gly Ala Ile Gln Val
            20                  25                  30
Leu Ser Val Gly Thr Ala Ala Ser Ser Gly Tyr Asn Arg Phe Asp Val
        35                  40                  45
Arg Gly Thr Tyr Met Leu Ser Asn Leu Leu Gln Glu Leu Thr Ile Ala
    50                  55                  60
Lys Asp Tyr Gly Arg Lys His Ile Ile Leu Asp Glu Ala Arg Leu Ser
65                  70                  75                  80
Glu Asn Pro Val Ala Arg Leu Ser Arg Leu Ile Lys Asn Ser Phe Trp
                85                  90                  95
Asp Ala Leu Thr Arg Arg Ile Asp Gly Ser Asn Ile Glu Val Ala Gly
            100                 105                 110
Arg Asp Pro Lys Asp Trp Thr Glu Asp Pro Arg Pro Arg Ile Tyr Val
        115                 120                 125
Pro His Gly Ala Pro Glu Gln Phe Glu Tyr Tyr Lys Gly Ile Ala Lys
    130                 135                 140
Glu His Pro Glu Leu Arg Leu Asp Val Gln Met Leu Glu Glu Asn Ile
145                 150                 155                 160
Thr Pro Asp Tyr Val Arg Asp Leu Asn Ser Lys Pro Gly Leu Leu Ala
                165                 170                 175
Leu Ala Met Gln Lys Lys Tyr Asn Glu Ser Thr Gln Lys Thr Glu Cys
            180                 185                 190
Val Gly Val Pro Phe Val Val Pro Gly Gly Arg Phe Asn Glu Leu Tyr
        195                 200                 205
Gly Trp Asp Ser Tyr Met Glu Ser Leu Gly Leu Leu Val Ser Asn Arg
    210                 215                 220
Val Asp Leu Ala Lys Ala Met Val Ile Asn Phe Cys Phe Cys Ile Lys
225                 230                 235                 240
Gln Tyr Gly Lys Ile Leu Asn Ala Asn Arg Ser Tyr Tyr Leu Thr Arg
                245                 250                 255
Ser Gln Pro Pro Phe Leu Thr Asp Met Ala Leu Arg Val Tyr Glu Arg
            260                 265                 270
Ile Lys Asn Glu Pro Asp Ala Met Asp Phe Leu Arg Asn Ala Thr Leu
        275                 280                 285
Ala Ala Ile Lys Glu Tyr Tyr Ser Val Trp Thr Ala Ala Pro Arg Tyr
    290                 295                 300
Asp Glu Leu Ser Gly Leu Ser Arg Tyr Arg Pro Glu Gly Arg Gly Val
```

```
305                 310                 315                 320
Pro Pro Glu Thr Glu Pro Thr His Phe Thr His Ile Leu Thr Pro Tyr
                325                 330                 335
Ala Glu Lys His Gly Met Thr Phe Lys Glu Phe Val Gln Ala Tyr Asn
            340                 345                 350
Glu Gly Arg Val Gln Glu Pro Glu Leu Asp Glu Tyr Phe Leu His Asp
        355                 360                 365
Arg Ala Val Arg Glu Ser Gly His Asp Thr Ser Tyr Arg Leu Glu Arg
    370                 375                 380
Val Cys Ala Asn Leu Ala Thr Val Asp Leu Asn Ser Leu Leu Tyr Lys
385                 390                 395                 400
Tyr Glu Val Asp Ile Ala Arg Ile Ile Arg Thr Tyr Phe Lys Asp Arg
                405                 410                 415
Leu Glu Ile Pro Pro Glu Phe Arg Thr Glu Ser Thr Lys Asp Ile Glu
            420                 425                 430
Ser Glu Ser Ser Ser Val Trp Asp Arg Arg Ala Arg Arg Arg Lys Val
        435                 440                 445
Arg Met Asp Thr Tyr Leu Trp Asp Glu Glu Lys Gly Met Tyr Phe Asp
    450                 455                 460
Tyr Asp Thr Val Leu Gln Lys Arg Thr Thr Tyr Glu Ser Ala Thr Thr
465                 470                 475                 480
Phe Trp Ala Met Trp Ala Gly Leu Ala Thr Pro His Gln Ala Ala Glu
                485                 490                 495
Leu Val Arg Lys Ala Leu Pro Arg Phe Glu Val Tyr Gly Gly Leu Val
            500                 505                 510
Ser Gly Thr Glu Glu Ser Arg Gly Ala Val Gly Leu Asp Arg Pro Asn
        515                 520                 525
Arg Gln Trp Asp Tyr Pro Tyr Gly Trp Ala Pro Gln Gln Met Leu Ala
    530                 535                 540
Trp Thr Gly Leu Leu Arg Tyr Gly Tyr Gln Glu Glu Ala Glu Arg Leu
545                 550                 555                 560
Ala Tyr Lys Trp Leu Phe Met Ile Thr Lys Ala Phe Val Asp Phe Asn
                565                 570                 575
Gly Val Val Val Glu Lys Tyr Asp Val Thr Arg Pro Ile Asp Pro His
            580                 585                 590
Arg Val Asp Ala Glu Tyr Gly Asn Gln Gly Val Asp Phe Lys Gly Ala
        595                 600                 605
Pro Arg Glu Gly
    610
```

<210> 32274
<211> 62
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (27)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32274

```
Ala Phe Gly Lys Pro Thr Leu Ser Thr Asp Ser Tyr Leu Asn Tyr Phe
1               5                   10                  15
Thr Leu Thr Phe Gly Ala Thr Pro Lys Arg Xaa Lys Lys Gly Lys Ile
            20                  25                  30
Phe Phe Leu Lys Asn Pro Gln Asn Pro Pro Pro Pro Leu Phe Phe Trp
```

```
        35                  40                  45
Gly Pro Pro Leu Leu Thr Pro Pro Ala Pro Asn Leu Gly Phe
    50                  55                  60

<210> 32275
<211> 238
<212> PRT
<213> A.fumigatus

<400> 32275
Pro Ile Ser Gln Gln Asn Pro Asp Lys Glu Gln Phe Ser Gly Gln Arg
1               5                   10                  15
Thr Ala Thr Pro Ser Pro Ala Leu Arg Leu Ser Asp Ala Ala Arg Val
            20                  25                  30
Ser Ser Pro Ile Phe Ser Leu Gly Ala Leu Asp Tyr Thr Ser Glu Asp
        35                  40                  45
Phe Asn Arg Asp Glu Lys Ile Gln Ala Met Gly Phe Val Gly Glu His
    50                  55                  60
Ser Glu Ile Ala Trp Ile Tyr Arg Leu Lys Arg Leu Leu Glu Gln Val
65                  70                  75                  80
Ser Val Gly Ser Lys Glu Ile Asp Thr Asp Arg Gln Ser Val Ala Ser
                85                  90                  95
Ala Ser Phe Phe Leu Asp Asp Ser Asp Ile Thr Val Leu Asp Asp Ile
            100                 105                 110
Asp Leu Ser Gln Arg Pro Ala Gln Thr Val Ala Asp Gln Leu Val Asp
        115                 120                 125
Glu Tyr Phe Gln Val Val His Pro Ser Phe Pro Ile Ile Gly Lys Leu
    130                 135                 140
Val Phe Leu Arg Gln Tyr Arg Ser Phe Tyr Ser Ser Pro His Val Arg
145                 150                 155                 160
Pro Gly Lys Arg Trp Leu Ala Val Leu Asn Leu Val Phe Ala Ile Gly
                165                 170                 175
Ala Arg Cys Ser Arg Tyr Ser Gln Gly Asp Asn Gly Gly Val Thr Asp
            180                 185                 190
Asp Glu Thr Leu Tyr Phe Ser Arg Ala Trp Arg Leu Ser Met Ser Asp
        195                 200                 205
Ile Ala Leu Leu Asp His Pro Asn Leu Gln Gln Val Gln Val Glu Gly
    210                 215                 220
Leu Thr Ser Phe Tyr Leu Leu Ser Val Gly Gln Val Asn Arg
225                 230                 235

<210> 32276
<211> 100
<212> PRT
<213> A.fumigatus

<400> 32276
Val Val Phe Gly Ile Arg Trp Cys Asp Gly Ser Leu Arg Leu Ser Tyr
1               5                   10                  15
Ala Leu Asn Arg Leu Glu Gly Gln Cys Asn His Arg Arg Gly Lys Phe
            20                  25                  30
Phe Ala Val Gly Ala Thr Ala Ser His Ile Ala Leu Ser Lys Asn Val
        35                  40                  45
Phe Glu Ala Leu Phe Ser Ser Val Arg Val Ile Thr Tyr Asn Tyr His
    50                  55                  60
Asp Thr Trp Leu Asp Ala Ala Glu Thr Phe Thr Thr Val Met Trp Leu
```

65 70 75 80
Ile Ala Gly Pro Asn Cys Ala Gln Asn Ala Arg Leu Arg Ile Pro Ile
85 90 95
Asp His Cys Gln
100

<210> 32277
<211> 384
<212> PRT
<213> A.fumigatus

<400> 32277
Thr Gly Lys Cys Ser Met Gln Arg Arg Gln Phe Leu Val Ser Cys Leu
1 5 10 15
Thr Gly Gly Val Leu Thr Ile Pro Arg Ser Trp Arg Ile Cys Gly Ile
20 25 30
Ser Leu Arg Ser Ala Val Thr Met Gly Leu Asn Leu Arg Ser Glu Ser
35 40 45
Asn Thr Ile Ala His Val Ser Lys Glu Thr Arg Tyr Arg Val Trp Trp
50 55 60
Ser Leu Phe Met Leu Asp Ile Ser Leu Cys Val Met Thr Gly Arg Pro
65 70 75 80
Ser Ser Ser Ser Asp Glu Phe Cys Thr Thr Pro Pro Pro Leu Pro Phe
85 90 95
Lys Glu Glu Asp Phe Ser Asp Asp Arg Val Val Gln Leu Ile Ala Asp
100 105 110
His Glu Ala Arg Gly Leu Phe Thr Glu Ala Leu Gly Lys Thr Thr Ala
115 120 125
Thr Ala Glu Thr Ala Leu Thr Pro Asp Leu Ser Asp His Pro Ser Asn
130 135 140
Met Asn Arg Asp Cys Glu Gln Val Ala Ser Ser Ala Ile Glu Ser Leu
145 150 155 160
Thr Pro Asn Ile Ser Leu Tyr Phe Leu Tyr Asn Val Glu Leu Asp Leu
165 170 175
Ile Leu Arg Glu Ala Val Val Thr Leu Tyr Ala Pro Gly Ala Ala Arg
180 185 190
Lys Ser Trp His Glu Ile Glu Leu Ser Ile Val Thr Leu Asn Ser Lys
195 200 205
Ala Asp Val Trp Leu Ser Arg Leu Pro Ala Ala Phe His Phe Glu Thr
210 215 220
Gly Ala Arg Val Phe Glu Arg Gln Arg Leu Asn Leu Ala Phe Cys Phe
225 230 235 240
Tyr Ser Thr Lys Ile Ile Ile Ala Gln Pro Cys Phe Ser Arg Leu Thr
245 250 255
Arg Gln Ala Pro Gly Ser Glu Pro Pro Gly Val Ala Cys Glu Thr Met
260 265 270
Ala Thr Met Cys Val Asp Phe Ala Ala Gln Met Leu Asn Leu Leu Pro
275 280 285
Thr Ile Pro Gln Ala Ser Trp Val Tyr Arg Val Ser Pro Trp Trp Cys
290 295 300
Phe Leu His Tyr Leu Met Gln Ser Thr Thr Val Leu Leu Thr Gln Ile
305 310 315 320
Leu Leu Leu Ser Glu Ala Gly Thr Val Lys Tyr Asn Arg Val Leu Glu
325 330 335
Gln Leu Ser Lys Ala Thr Arg Trp Leu Ser Glu Leu Ser Thr Asn Asp
340 345 350

```
Pro Ser Ser Ala Arg Ala Trp Leu Phe Cys Arg Asp Leu Ile Ser Gln
        355                 360                 365
His Ala Pro Glu Leu Asp Leu Gly Ala Ser Ile Glu Asn His Arg Asn
    370                 375                 380

<210> 32278
<211> 147
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (17)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32278
Phe Val Pro Glu Leu Leu Tyr Thr Asn Leu Trp Arg His Pro Gln Lys
1               5                   10                  15
Xaa Lys Lys Gly Glu Asn Phe Phe Phe Lys Lys Pro Pro Lys Pro Pro
            20                  25                  30
Pro Pro Pro Phe Phe Leu Gly Pro Pro Pro Phe Asn Pro Pro Arg Pro
        35                  40                  45
Lys Phe Gly Val Leu Lys Asn Phe Gly Pro Gln Lys Arg Pro Arg Gly
    50                  55                  60
Gly Phe Ser Pro Gly Lys Phe Gly Ala Pro Pro Gly Gly Leu Lys Phe
65                  70                  75                  80
Phe Pro Lys Lys Phe Gly Gly Phe Phe Leu Gly Gly Gly Gly Gly Gly
                85                  90                  95
Arg Lys Lys Lys Gly Lys Lys Gly Ala Pro Gly Phe Phe Pro Gln Lys
            100                 105                 110
Tyr Phe Ser Pro Lys Asn Phe Phe Lys Asn Pro Pro Lys Lys Gly Gly
        115                 120                 125
Ala Leu Pro Pro Lys Lys Pro Pro Gln Lys Phe Phe Phe Phe Leu Lys
    130                 135                 140
Lys Tyr Phe
145

<210> 32279
<211> 164
<212> PRT
<213> A.fumigatus

<400> 32279
Leu Leu Val Phe Trp Arg Ile Arg Lys Met Met Leu Leu Leu Met Leu
1               5                   10                  15
Leu Leu Phe Thr Leu Cys Asp Ile Ala Thr Ala Gly Ser Val Ser Val
            20                  25                  30
Glu Asp Leu Thr Leu Asn Leu Asp Leu Asp Arg Arg Gly Ile Ala Leu
        35                  40                  45
Ser Thr Glu Pro Pro Val Asp Gln Ser Leu Leu Ala Ile Gln Ile Gly
    50                  55                  60
Gly Ile Val Gly Ala Tyr Val Ile Phe Val Ala Ile Leu Leu Thr Leu
65                  70                  75                  80
Leu Leu Phe Val Gly Arg Arg Leu Arg Arg Ala Val Gln Ala Ser Asn
                85                  90                  95
Tyr Thr Leu Gln Val Glu Met Met Lys Pro Ser Lys Gln Ala Val Ser
```

```
            100                 105                 110
Met Asp Pro Ser Pro Val Thr Pro Val Ser Ala Arg Leu Pro Ser Pro
        115                 120                 125
Ile Ala Gln Asn Gly Phe Asn Arg Ser Trp Gly Ser Leu Ala Asn Gly
    130                 135                 140
Pro Arg Pro His Val Ser Gly Asn Gly Ser Ala Ala Thr Ile Asp Glu
145                 150                 155                 160
Ser Val Val Ala
```

<210> 32280
<211> 63
<212> PRT
<213> A.fumigatus

<400> 32280

```
Val Leu Ser His Thr Gln Ile Leu Arg Asn Ala Ser Glu Cys Ile Thr
1               5                   10                  15
Val Lys Tyr Ala Asp Leu Val Thr Ile Asp Leu Ser Glu Phe Asp Gln
            20                  25                  30
Pro Gly Gly Lys Glu Lys Leu Ala Ala Gln Leu Lys Asp Val Val His
        35                  40                  45
Glu Val Gly Asn Phe Phe Phe Pro Arg Cys Leu Leu Pro Asp Tyr
    50                  55                  60
```

<210> 32281
<211> 91
<212> PRT
<213> A.fumigatus

<400> 32281

```
Phe Cys Trp Gly Pro Leu Ala Phe Phe Ile Ala Tyr Cys Ile Ala Val
1               5                   10                  15
Gln His Pro Leu Arg His Ala Leu Gln Leu Ile Met Ser Thr Gly Gln
            20                  25                  30
Val Tyr Gly Asp Val Leu Tyr Tyr Ala Thr Ser Leu Phe Asp Leu Tyr
        35                  40                  45
Phe His Gly Val Ile Phe Cys Arg Pro Glu Arg Tyr Tyr Phe Trp Phe
    50                  55                  60
Tyr Tyr Phe Phe Met Asn Phe Ile Trp Ile Ala Ile Pro Ser Cys Ser
65                  70                  75                  80
Ser Ala Leu Asn Tyr Val Pro Ala Val Ser Cys
                85                  90
```

<210> 32282
<211> 204
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (175),(194)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32282

```
Arg Met Trp Phe Met Lys Leu Val Ile Ser Ser Phe Leu Gly Val Ser
```

```
1               5                   10                  15
Tyr Leu Thr Thr Asp Ser Pro Gly Phe Phe Tyr Val Thr Asn Phe Gly
            20                  25                  30
Leu Thr Gln Glu Gln Val Asp Arg Gln Phe Ala Ile Ala Lys Glu Phe
        35                  40                  45
Phe Ser Leu Pro Glu Glu Glu Arg Arg Ser Phe Arg Ala Pro Leu Glu
    50                  55                  60
Glu Gly Ile Tyr Asn Gly Tyr Arg Pro Leu Gly Ser Ile Glu Ile Leu
65                  70                  75                  80
Pro Gly Leu Arg Asp Asn Ile Glu Phe Tyr Asn Ile Met Lys Phe Leu
                85                  90                  95
Pro Gln Tyr Glu Arg Thr His Pro Asp Val Ile Arg Arg His Trp Ala
            100                 105                 110
Glu Ile Glu Lys Phe His Arg His Val His Glu His Ile Ala Tyr Arg
        115                 120                 125
Leu Phe Arg Leu Leu Ala Ile Val Leu Glu Ile Pro Glu Asp Glu Leu
    130                 135                 140
Glu Lys Gly His Leu Tyr Asp Ser Asn Cys Asp Ser Gly Leu Arg Asn
145                 150                 155                 160
Met Cys Leu Arg Ala Arg Ser Ala Glu Glu Asn Glu Lys Tyr Xaa Ser
                165                 170                 175
Leu Tyr Ser Arg Ser His Thr Asp Asn Gly Thr Ile Thr Phe Val Phe
            180                 185                 190
Gln Xaa Pro Val Ala Gly Val Thr Gly Gln Lys Thr
        195                 200
```

<210> 32283
<211> 101
<212> PRT
<213> A.fumigatus

<400> 32283

```
Val Met Lys His Leu His Pro Thr Ser Val His Thr Cys Gly Leu Tyr
1               5                   10                  15
Phe Tyr Pro Leu Ser Val Arg Pro Ile Thr Ser Cys Leu Asp Tyr Arg
            20                  25                  30
Phe Arg Phe Gln Lys Glu Tyr Ser Gly Leu Thr Ser Thr Arg Cys Glu
        35                  40                  45
Thr Tyr Phe Ile Ser Ala Pro Glu Leu Asp Val Ser Gly Glu Ile Leu
    50                  55                  60
Leu Asp Thr His Ala Ser Pro Arg Phe Val Ser Cys Arg Trp Arg Thr
65                  70                  75                  80
Glu Ser Leu Trp Phe Ala Asp Phe Ala Asn Lys Phe Val Ile Glu Asp
                85                  90                  95
Asn Phe Arg Glu Asn
            100
```

<210> 32284
<211> 84
<212> PRT
<213> A.fumigatus

<400> 32284

```
Thr His Ala Leu Ser Phe Gly Pro Ala Leu Met Ser Phe Leu Asp Ile
1               5                   10                  15
Ser Ile Gly Asn Leu Leu Ser Lys Arg Lys Thr Tyr Leu Arg Asn Arg
```

```
            20                  25                  30
Thr Arg Leu Thr Ser Asn Asn Arg Gly Glu Ser Pro Met Leu Cys Arg
        35                  40                  45
Met Ile Ser Ala Val Lys Thr Thr Leu Leu Gly Leu Glu Thr Ala Ile
    50                  55                  60
Ala Ile Ala Glu Pro Ala Ile Arg Thr Asp Gln Pro Arg Leu Ala Leu
65                  70                  75                  80
Ser Glu Arg Pro
```

<210> 32285
<211> 93
<212> PRT
<213> A.fumigatus

<400> 32285

```
Ser Ile Asn Leu Asn Ser Glu Ser Ile Thr Met Lys Ala Asn Thr Met
1               5                   10                  15
Gln Ser Leu Ser Val Gly His Thr Arg Ile Ala Ile Ala Glu Val Thr
            20                  25                  30
Ile Phe Ser Phe Ile Gln Leu Val Gln Phe Ile Thr Arg Phe Met Gln
        35                  40                  45
Glu Trp Gln Tyr Trp His His Arg Arg Glu Arg Asn Val Arg Arg Cys
    50                  55                  60
Val Leu Tyr Ser Trp Phe Gly Met Leu Gly Ile Leu Ala Gln Arg Lys
65                  70                  75                  80
Cys Glu Phe Thr Cys Pro Leu Trp Ser Leu Gly Gln Gly
                85                  90
```

<210> 32286
<211> 220
<212> PRT
<213> A.fumigatus

<400> 32286

```
Ser His Gly Leu Thr Asn Asp Leu Leu Ala Gly Trp Leu Ile Pro Phe
1               5                   10                  15
Pro Ala Asp Leu Leu Asn Ala His Ala Gln Tyr Val Glu Leu Tyr Ile
            20                  25                  30
Asn Gln Leu Ala Tyr Ser Val Ser Gln Asn Ser Leu Pro Leu Asn Leu
        35                  40                  45
Thr Gly Gln Leu Gly Phe Glu Arg Leu Gln Cys Leu Trp Gln Ser Val
    50                  55                  60
Glu Asn Ile Lys Ser Trp Leu Gly His Phe Tyr Gln Ile Pro Cys Ser
65                  70                  75                  80
Asp Leu Val Gly Gln Pro Phe His Phe Trp Ser Gln Met Ile Leu Thr
                85                  90                  95
Val Thr Leu Leu Lys Tyr Leu Ser Thr Leu His Asp Pro Glu Trp Asp
            100                 105                 110
Cys Gln Ala Val Arg Gly Thr Val His Leu Ile Thr Thr Met Asp Ser
        115                 120                 125
Met Val Gln Lys Leu Asp Leu Ser Ser Lys Val Pro Glu Tyr Gln Cys
    130                 135                 140
Asp Asp His Leu Leu Lys Phe Leu Ser Lys Leu Leu Thr Arg Cys Arg
145                 150                 155                 160
Arg Trp Ala Glu Ala Arg Trp His Asp Glu Glu Thr Trp Pro Gly Arg
```

```
                165                 170                 175
Ser Ala Ser Ser Asp Thr Thr Gly His Asn His Pro Ile Pro Glu Leu
            180                 185                 190
Asp Gln Met Val Trp Met Gln Ser Met Asp Leu Gly Asp Asp Gln Trp
        195                 200                 205
Phe Glu Asn Val Leu Gly Met Pro Ser Ala Phe Tyr
    210                 215                 220

<210> 32287
<211> 524
<212> PRT
<213> A.fumigatus

<400> 32287
Lys Leu Gly Ala Asp Ser Ser Ser Pro Val Val Lys Thr Tyr Cys Gly
1               5                   10                  15
Ser Tyr Gly Val Glu Tyr Ile His Ile Pro Asp Arg Lys Pro Cys Asp
            20                  25                  30
Trp Ile Arg Asp Arg Phe Glu Ile Pro Glu Pro Tyr Lys Tyr Ser Val
        35                  40                  45
Asp Asp Lys Arg Arg Ile Leu Asp Arg Leu Ile Trp Ser His Ser Phe
    50                  55                  60
Glu Ala Phe Leu Ala Thr Lys Phe Pro Asn Asp Lys Arg Phe Gly Leu
65                  70                  75                  80
Glu Gly Cys Glu Thr Leu Val Pro Gly Met Lys Ala Leu Ile Asp Arg
                85                  90                  95
Ser Val Glu His Gly Ile Lys Asp Ile Val Ile Gly Met Pro His Arg
            100                 105                 110
Gly Arg Leu Asn Val Leu Ser Asn Val Val Arg Lys Pro Asn Glu Ser
        115                 120                 125
Ile Phe Ser Glu Phe Ser Gly Ser Ala Glu Pro Ser Asp Glu Gly Phe
    130                 135                 140
Gly Asp Val Lys Tyr His Leu Gly Met Asn Phe Glu Arg Pro Thr Pro
145                 150                 155                 160
Ser Gly Lys Arg Val Gln Leu Ser Leu Val Ala Asn Pro Ser His Leu
                165                 170                 175
Glu Ala Glu Asp Pro Val Val Leu Gly Lys Thr Arg Ser Ile Leu His
            180                 185                 190
Tyr Asn Asn Asp Glu Lys Asp Phe Asn Ser Ala Met Gly Val Leu Leu
        195                 200                 205
His Gly Asp Ala Ala Phe Ala Gly Gln Gly Val Val Tyr Glu Thr Met
    210                 215                 220
Gly Phe His Ser Leu Pro Ala Tyr Ser Thr Gly Gly Thr Ile His Ile
225                 230                 235                 240
Ile Val Asn Asn Gln Ile Gly Phe Thr Thr Asp Pro Arg Tyr Ser Arg
                245                 250                 255
Ser Thr Pro Tyr Cys Ser Asp Ile Ala Lys Ser Ile Asp Ala Pro Val
            260                 265                 270
Phe His Val Asn Ala Asp Asp Val Glu Ala Val Asn Tyr Val Cys Gln
        275                 280                 285
Val Ala Ala Asp Trp Arg Ala Glu Phe Lys Arg Asp Val Val Ile Asp
    290                 295                 300
Ile Val Cys Tyr Arg Lys Gln Gly His Asn Glu Thr Asp Gln Pro Ser
305                 310                 315                 320
Phe Thr Gln Pro Leu Met Tyr Lys Arg Ile Ala Glu Gln Lys Ala Gln
                325                 330                 335
```

```
Leu Asp Lys Tyr Val Glu Lys Leu Ile Ala Glu Gly Thr Phe Thr Lys
            340                 345                 350
Glu Asp Ile Asp Glu His Lys Lys Trp Val Trp Gly Met Leu Asn Asp
        355                 360                 365
Ser Phe Asp Arg Ser Lys Asp Tyr Gln Pro Thr Gly Lys Glu Trp Leu
    370                 375                 380
Thr Ser Ala Trp Asn Gly Phe Lys Thr Pro Lys Glu Leu Ala Thr Glu
385                 390                 395                 400
Val Leu Pro His Leu Pro Thr Ala Val Asp Ala Ser Leu Leu Ser His
                405                 410                 415
Ile Ala Asp Lys Ile Ser Gly Ala Pro Glu Gly Phe Thr Val His Arg
            420                 425                 430
Asn Leu Lys Arg Ile Leu Ala Asn Arg Lys Lys Ala Val Asp Glu Gly
        435                 440                 445
Lys Asn Ile Asp Trp Ala Thr Ala Glu Ala Leu Ala Phe Gly Ser Leu
    450                 455                 460
Val Lys Glu Gly Tyr His Val Arg Val Ser Gly Gln Asp Val Glu Arg
465                 470                 475                 480
Gly Thr Phe Ser Gln Arg His Ala Val Leu His Asp Gln Glu Asn Glu
                485                 490                 495
Ala Thr Tyr Thr Pro Leu Lys His Ile Ala Glu Asp Gln Gly Ser Phe
            500                 505                 510
Val Ile Ser Asn Ser Ser Leu Ser Glu Phe Gly Ala
        515                 520
```

<210> 32288
<211> 187
<212> PRT
<213> A.fumigatus

<400> 32288

```
Leu Phe Ile Asn Ser Ile Ala Ile Ala Leu Val Ile Phe Phe Ser Lys
1               5                   10                  15
Ser Leu Leu Arg His Pro Ile Ala Arg Ser Asp Ile Glu Glu Phe Thr
            20                  25                  30
Gly Asp Ser His Phe Arg Trp Ile Ile Pro Asp Pro Ala His Gly Ser
        35                  40                  45
Thr Ile Asp Glu Pro Glu Lys Ile Glu Arg Val Ile Leu Cys Ser Gly
    50                  55                  60
Gln Val Tyr Ala Thr Leu Val Lys His Arg Glu Ala Asn Gly Ile Arg
65                  70                  75                  80
Asn Thr Ala Ile Thr Arg Val Glu Gln Leu His Pro Phe Pro Trp Ala
                85                  90                  95
Gln Leu Lys Glu Asn Leu Asp Ser Tyr Pro Asn Ala Lys Asp Ile Val
            100                 105                 110
Trp Ala Gln Glu Glu Pro Leu Asn Ala Gly Ala Trp Ser Tyr Thr Gln
        115                 120                 125
Pro Arg Ile Glu Thr Leu Leu Asn Glu Thr Glu His His Asn Arg Arg
    130                 135                 140
His Val Leu Tyr Ala Gly Arg Pro Pro Ser Ala Ser Val Ala Thr Gly
145                 150                 155                 160
Leu Lys Ser Val His Ala Lys Glu Glu Gln Asp Phe Leu Gln Glu Ala
                165                 170                 175
Phe Thr Val His Gln His Arg Leu Lys Gly Glu
            180                 185
```

<210> 32289
<211> 184
<212> PRT
<213> A.fumigatus

<400> 32289
Ser Thr Ser Leu Arg Ile Arg Ala Ala Ser Ser Ser Pro Thr Leu Pro
1 5 10 15
Leu Ala Asn Ser Glu Arg Lys Leu Thr Ser Thr Leu Thr Ser Leu Pro
20 25 30
Leu Leu Ser Gln Ala Asn Leu Phe Ser Ser Leu Gly Phe Glu Tyr Gly
35 40 45
Tyr Ser Leu Thr Ser Pro Asn Ala Leu Val Met Trp Glu Ala Gln Phe
50 55 60
Gly Asp Phe Ala Asn Asn Ala Gln Cys Ile Ile Asp Gln Phe Ile Ala
65 70 75 80
Ser Gly Glu Ser Lys Trp Leu Gln Arg Ser Gly Leu Val Val Ser Leu
85 90 95
Pro His Gly Tyr Asp Gly Gln Gly Pro Glu His Ser Ser Gly Arg Met
100 105 110
Glu Arg Trp Leu Gln Leu Cys Asn Glu Glu Pro Arg Gln Phe Pro Thr
115 120 125
Gln Asp Lys Leu Asp Arg Gln His Gln Asp Cys Asn Met Gln Ile Ala
130 135 140
Tyr Met Thr Ser Pro Ala Asn Leu Phe His Ile Leu Arg Arg Gln Ile
145 150 155 160
His Arg Gln Phe Arg Lys Arg Lys Ser Trp Phe Pro Ala Ser Leu Asn
165 170 175
Asp Ser Ser Leu Thr Gln Leu Pro
180

<210> 32290
<211> 137
<212> PRT
<213> A.fumigatus

<400> 32290
Arg Val Ile Gln Gly Gly Arg Glu Pro Arg Leu Thr Leu Ala Glu Leu
1 5 10 15
Ala Val Asp Leu Ala Thr Gln Asp Val Glu Lys Ile Gly Arg Arg Gly
20 25 30
His Val Gly Asn Leu His Ile Ala Val Leu Val Leu Thr Val Gln Leu
35 40 45
Val Leu Ser Gly Glu Leu Ala Arg Phe Leu Val Ala Lys Leu Gln Pro
50 55 60
Thr Leu His Ser Thr Arg Arg Val Leu Arg Thr Leu Ala Ile Ile Thr
65 70 75 80
Val Arg Gln Gly Asp Asn Glu Thr Gly Ala Leu Gln Pro Leu Gly Leu
85 90 95
Ser Arg Gly Asp Glu Leu Val Asn Asn Ala Leu Ser Ile Ile Gly Glu
100 105 110
Val Thr Glu Leu Gly Leu Pro His Asp Gln Gly Ile Arg Gly Gly Gln
115 120 125
Arg Val Thr Val Phe Lys Thr Lys Ala
130 135

<210> 32291
<211> 202
<212> PRT
<213> A.fumigatus

<400> 32291
Leu Leu Gln Ile Lys Ala Pro Lys Thr Ile Ile Gln Gln Trp Leu Gln
1 5 10 15
Arg Pro His Leu Leu Ala Leu Gln Thr Met Leu Val Asp Ser Glu Cys
20 25 30
Phe Leu Lys Glu Val Leu Phe Leu Leu Gly Val Asp Gly Leu Glu Thr
35 40 45
Ser Arg Asp Gly Gly Ala Trp Gly Pro Thr Ser Val Glu Asp Val Ala
50 55 60
Thr Val Val Val Leu Ser Leu Val Gln Gln Gly Leu Asn Thr Gly Leu
65 70 75 80
Gly Val Thr Pro Ser Thr Gly Val Gln Arg Leu Phe Leu Ser Pro Asp
85 90 95
Asn Val Leu Gly Val Arg Val Ala Val Gln Val Leu Leu Gln Leu Ser
100 105 110
Pro Arg Glu Gly Val Gln Leu Leu Asn Thr Gly Asp Gly Ser Val Ala
115 120 125
Asp Thr Ile Gly Phe Ala Val Leu Asp Gln Gly Ser Ile Asp Leu Ala
130 135 140
Thr Ala Gln Asn Asp Ala Leu Asp Leu Leu Gly Leu Val Asn Gly Ala
145 150 155 160
Thr Val Gly Arg Val Arg Asp Asp Pro Pro Glu Val Arg Val Thr Gly
165 170 175
Glu Phe Leu Asp Ile Gly Ala Ser Asn Arg Met Thr Glu Glu Gly Leu
180 185 190
Gly Glu Glu Asp His Glu Gly Tyr Gly Asn
195 200

<210> 32292
<211> 535
<212> PRT
<213> A.fumigatus

<400> 32292
Glu Ser Lys Gly Lys Leu Val Asn Val Glu Val Asn Leu Arg Ser Glu
1 5 10 15
Phe Ala Lys Gly Arg Val Gly Asp Asp Glu Ala Ala Leu Ile Leu Ser
20 25 30
Asp Val Leu Gln Gly Gly Ile Arg Ser Leu Val Leu Leu Val Val Gln
35 40 45
Asn Gly Val Thr Leu Gly Glu Gly Thr Thr Phe Asn Val Leu Thr Gly
50 55 60
Asn Thr Asp Met Val Ala Leu Phe His Gln Arg Thr Lys Gly Glu Gly
65 70 75 80
Leu Arg Gly Gly Pro Val Asp Val Leu Thr Leu Ile Asn Gly Leu Leu
85 90 95
Ala Val Gly Gln Asn Thr Leu Glu Val Ala Val Asp Gly Glu Ala Leu
100 105 110
Gly Gly Ala Ala Asn Leu Val Gly Asn Val Ala Gln Gln Arg Ser Ile
115 120 125
Asn Ser Gly Arg Gln Met Arg Gln Asn Leu Gly Gly Gln Leu Leu Arg

```
    130                 135                 140
Ser Leu Glu Ala Val Pro Ser Arg Gly Gln Pro Phe Leu Ala Gly Gly
145                 150                 155                 160
Leu Val Ile Leu Ala Ala Val Glu Ala Val Val Glu His Thr Pro Asn
                165                 170                 175
Pro Leu Phe Val Leu Val Asn Val Leu Phe Gly Glu Gly Ala Leu Ser
            180                 185                 190
Asn Gln Leu Leu Asp Ile Leu Val Lys Leu Ser Leu Leu Leu Gly Asp
        195                 200                 205
Ala Leu Val His Gln Gly Leu Ser Glu Arg Gly Leu Val Gly Phe Val
    210                 215                 220
Val Thr Leu Leu Thr Val Ala Asp Asp Val Asn Asp Asp Val Ala Leu
225                 230                 235                 240
Glu Leu Gly Thr Pro Val Gly Ser Asn Leu Thr Asn Val Val His Gly
                245                 250                 255
Leu Asp Ile Ile Ser Val His Val Glu His Arg Gly Val Asp Gly Leu
            260                 265                 270
Gly Asp Ile Arg Ala Val Arg Gly Gly Thr Arg Val Thr Gly Val Gly
        275                 280                 285
Ser Glu Thr Asn Leu Val Val His Asp Asp Val Asp Ser Thr Thr Gly
    290                 295                 300
Arg Val Gly Gly Glu Arg Val Glu Ala His Gly Leu Val Asp Asp Thr
305                 310                 315                 320
Leu Ala Gly Glu Gly Ser Ile Thr Val Gln Gln Asn Thr His Gly Ala
                325                 330                 335
Val Glu Val Leu Leu Ile Ile Val Val Val Gln Asn Arg Ala Arg Leu
            340                 345                 350
Ala Lys Asn Asn Gly Val Leu Gly Phe Gln Met Gly Gly Val Gly Asp
        355                 360                 365
Gln Arg Glu Leu His Thr Leu Thr Arg Gly Arg Gly Thr Phe Glu Val
    370                 375                 380
His Thr Gln Val Val Leu Asp Ile Thr Glu Pro Phe Ile Arg Arg Leu
385                 390                 395                 400
Gly Gly Ser Arg Glu Phe Thr Glu Asp Gly Leu Val Gly Leu Thr Asn
                405                 410                 415
Asn Val Gly Gln Tyr Ile Glu Thr Thr Thr Val Arg His Thr Asn Asp
            420                 425                 430
Asn Val Leu Asp Ala Val Leu Asp Ala Ala Val Asn Gln Arg Leu His
        435                 440                 445
Thr Arg His Lys Gly Leu Ala Thr Leu Gln Thr Glu Thr Leu Val Ile
    450                 455                 460
Gly Glu Leu Gly Gly Gln Glu Gly Leu Glu Ala Val Thr Pro Asp Gln
465                 470                 475                 480
Thr Val Lys Asp Thr Ala Leu Val Val Asn Arg Val Leu Val Gly Leu
                485                 490                 495
Arg Asn Phe Glu Ala Ile Thr Asp Pro Val Ala Gly Leu Thr Ile Arg
            500                 505                 510
Asn Val Asn Val Leu His Thr Ile Gly Ala Thr Ile Ser Leu His His
        515                 520                 525
Gly Ala Gly Arg Ile Arg Ala
    530                 535
```

<210> 32293
<211> 375
<212> PRT
<213> A.fumigatus

<400> 32293
Leu Val Asp Thr Phe Ser Val Gly His Arg Arg Asn Ala Glu His Asp
1 5 10 15
Val Lys Pro Lys Glu Gln Val Ile Val Trp Val Asp His Ala Gly His
20 25 30
Thr Ile Gly Ile Glu His Lys His Gln Thr Pro Thr Ala Thr Phe Lys
35 40 45
Ser Val Cys Leu Phe Ala Thr Asp Gln Cys Ile Thr Arg Leu Asn Ile
50 55 60
Lys Leu Thr Pro Arg Gln Ser Pro Thr Glu Leu Pro Leu Leu Pro Asn
65 70 75 80
Thr Asp Asn Ile Ile Pro Asp Asn Pro Leu Pro Lys Leu Thr Val Glu
85 90 95
Val Pro Glu Leu Asn Thr Asn Arg Gly Pro Arg Phe Gly Ile Thr Tyr
100 105 110
Ser Pro Tyr Thr Ser His Gly Thr Cys Lys Thr Phe Asp Gln Ile Asn
115 120 125
Gln Asp Ile Glu His Leu Arg His His Ala Phe Ile Arg Ile Tyr Gly
130 135 140
Ile Asp Cys Asp Gln Thr Lys Leu Val Thr Gln Ala Ala Arg Gln His
145 150 155 160
Gly Leu Lys Val Phe Ala Gly Val Phe Asp Leu His Asn Phe Pro Asp
165 170 175
Ser Leu His Tyr Ile Arg Asp Ala Ala Thr Ala Ala Gly Gly Asp Trp
180 185 190
Ser Ile Phe His Thr Ile Ala Ile Gly Asn Glu Leu Val Asn Lys Gly
195 200 205
Gln Asn Lys Pro Ala Asp Val Val Asn Ala Val Asn Thr Ala Arg Gly
210 215 220
Ile Leu Arg Gly Ala Gly Tyr Gln Gly Pro Val Val Thr Val Asp Thr
225 230 235 240
Phe Ser Val Met Leu Gln His Pro Glu Leu Cys Ala Ala Ser Asp Tyr
245 250 255
Cys Ala Ala Asn Cys His Ala Phe Phe Asp Asn Asn Gln Leu Pro Glu
260 265 270
Thr Ala Gly Glu Tyr Ala Leu Asp Lys Ala Arg Arg Ile Ser Ala Ala
275 280 285
Ala Gly Gly Lys Lys Thr Val Ile Thr Glu Ser Gly Trp Pro His Ala
290 295 300
Gly Gln Pro Asn Gly Arg Ala Val Pro Ser Pro Glu Asn Gln Lys Lys
305 310 315 320
Ala Ile Ala Ser Leu Arg Lys Ala Phe Ala Asp Asp Pro Asp Leu Val
325 330 335
Leu Phe Thr Ala Phe Asp Asp Leu Trp Lys Ser Asp Asn Gln Trp Thr
340 345 350
Phe Gly Ala Glu Arg Phe Trp Gly Ile Gln Asp Met Gly Arg Glu Arg
355 360 365
Glu Arg Glu Gln Asp Arg Glu
370 375

<210> 32294
<211> 82
<212> PRT
<213> A.fumigatus

<400> 32294
Gln His Arg Ile Gln Gln Tyr Gln Gln Asp Ile Phe Asn Glu Leu Arg
1 5 10 15
Gly Glu Asp Glu Leu Val Ile Leu Ala Arg Gly Leu Gly Leu Leu Arg
20 25 30
Leu Val Thr Asn Leu Leu His Phe Tyr Asp Ala Ala Gly Asn Asn Leu
35 40 45
Val Leu Val Val Gly Ala Asp Asp Arg Glu Asn Glu Trp Ile Gly Glu
50 55 60
Gly Thr Glu Tyr Ala Asp Phe Asn Thr Leu Gln Val Ser Gln Lys Leu
65 70 75 80
Arg Asp

<210> 32295
<211> 159
<212> PRT
<213> A.fumigatus

<400> 32295
Ala Thr Ser Ala Met Ser His Ser Ser Leu Val Leu Ile His His Tyr
1 5 10 15
Gln Ser Met Ala Val Thr Leu Thr His Asp Lys Ser Gln Glu Asp Pro
20 25 30
Gln Glu Gln Phe Leu Arg Thr Val Asn Thr Arg Ile Ala Gly Gly Gly
35 40 45
Arg Leu Ala Ala Thr Ala Ser Pro Pro Arg Val Val Val Asp Val Arg
50 55 60
Glu Phe Arg Ser Ala Leu Pro Ser Leu Leu His Gly Asn Asn Met Ile
65 70 75 80
Ile Val Pro Cys Gln Leu Thr Val Gly Asp Tyr Ile Leu Thr Pro Asp
85 90 95
Ile Cys Val Glu Arg Lys Ser Val Arg Asp Leu Ile Thr Ser Leu Arg
100 105 110
Asn Gly Arg Leu Tyr Asn Gln Ala Glu Thr Met Leu Gln His Tyr Lys
115 120 125
Asn Pro Leu Leu Leu Ile Glu Phe Asp Gln Asn Lys Ser Phe Thr Cys
130 135 140
Asp Gly Leu Gln His Val Asp Gly Arg Ile Arg Arg Gly Leu Ser
145 150 155

<210> 32296
<211> 165
<212> PRT
<213> A.fumigatus

<400> 32296
Arg His Pro Arg Ile Val Ala Thr Ser Thr Glu Ala Phe Ile Ile Arg
1 5 10 15
Ile Tyr Arg Gln Ile Asn Lys Ser Gly Phe Leu Lys Ala Phe Ser Asp
20 25 30
Ser Pro Glu Pro Phe Thr Thr Gly Phe Ala Pro Leu Ala Asn Tyr Met
35 40 45
Arg Asn Leu Phe Leu Arg Lys Thr Ser Leu Trp Pro Arg Phe His Val
50 55 60
Thr Val Ala Glu Ser Leu Glu Gly His Arg Lys Ala Glu Val Ile Glu

65 70 75 80
Leu Glu Val Pro Met Thr Asp Lys Met Arg Glu Ile Gln Asn Ala Val
85 90 95
Leu Glu Cys Val Glu Ile Ser Ile Ala Glu Leu Lys Lys Ala Asn Thr
100 105 110
Gly Leu Asp Met Ala Asp Trp Thr Leu Asp Ser Ala Leu His Arg Ser
115 120 125
Phe Asp Ile Ala Ile Arg Arg Gln Leu Asp Pro Met Trp His Arg Val
130 135 140
Ser Phe Arg Thr Arg Gln Ile Val Ser Asp Leu Ser Asp Leu Arg Ala
145 150 155 160
Ile Leu Gln Tyr Val
165

<210> 32297
<211> 428
<212> PRT
<213> A.fumigatus

<400> 32297
Val Leu Gly Pro Gly Arg Leu Ser Ala Thr Cys Leu Ile Phe Ala Arg
1 5 10 15
Phe Phe Ser Thr Phe Asp Cys Pro Lys His Ala Leu Ser Gly Val Arg
20 25 30
Ile Gly Thr His Tyr Trp Tyr Ser Ala Leu Leu Thr Tyr Asp Ala Val
35 40 45
Ser Phe Val Lys Tyr Leu Asp Thr Ile Val Thr Ala His Ser Pro Pro
50 55 60
Pro Gly Ser Thr Arg His Asn Tyr Ser Pro Trp Leu Phe Leu Asp Ala
65 70 75 80
Ala His Val Leu Phe Gln Thr Ala Lys Ser Arg Val Tyr Glu Gly Lys
85 90 95
Ile Thr Arg Asp Ala Ala Asn Thr Leu Asp Ser Thr Leu Gln Pro Val
100 105 110
Leu Glu Glu Gln Pro Lys Trp Ala Val Leu Ala Glu Val Leu Glu Glu
115 120 125
Ile Glu Gln Asp Ala Tyr Leu Asn Pro Val Ser Thr Asp Gly Ser Asn
130 135 140
Ser Thr Val Leu Ile Met Cys Thr Asp Gln Arg Thr Cys Arg Gln Ile
145 150 155 160
Arg Glu Tyr Leu Gly Thr Met His Ala Arg Ile Gly Lys Asp Lys Ala
165 170 175
Glu Asp Pro Gly Asp Leu Asp Ala Met Ser Glu Lys Lys Phe Ser Ala
180 185 190
Glu Val Met Leu Arg Arg Arg Leu Arg Glu Tyr Leu Asp Trp Lys Thr
195 200 205
Ser Leu Ala Asn Val Asn Arg Asn Leu Ser Ala Lys Ser Gly Asp Asp
210 215 220
Thr Gln Asn Ala Lys Gly Gln Glu Ser Pro Lys Pro Thr Ser Gln Gln
225 230 235 240
Gly Arg Ala Pro Pro Asn Lys Arg Arg Arg Val Arg Gly Gly Gly Thr
245 250 255
Val Thr Ser Ala Ala Ala Arg Val Pro Asn Ala Ser Val Gln Thr Asp
260 265 270
Thr Glu Leu Pro Gly Gln Val Ser Ser Leu Leu Glu Glu Leu Gln Pro
275 280 285

```
Thr Asp Ile Glu Glu Thr Gln Lys Gly Glu Ile Ile Ser Asp Asp Leu
    290                 295                 300
Glu Asp Met Glu Asp Phe Phe Glu Leu Tyr Asp Met Asp Asp Leu Val
305                 310                 315                 320
Ile Val His Pro Tyr Asp Gly Asp Met Asp Glu His Ile Leu Glu Glu
                325                 330                 335
Val Arg Pro Arg Tyr Ile Ile Met Tyr Glu Pro Asp Ala Ala Phe Ile
            340                 345                 350
Arg Arg Val Glu Val Tyr Arg Ser Ser His Val Gly Arg Asn Ile Arg
        355                 360                 365
Val Tyr Phe Ile Tyr Tyr Gly Gly Ser Val Glu Glu Gln Arg Tyr Leu
    370                 375                 380
Ser Ala Val Arg Arg Glu Lys Asp Ser Phe Thr Lys Leu Ile Lys Glu
385                 390                 395                 400
Lys Gly Val Ser Asp Phe Gly His Val Ser Leu Phe Pro Cys Ile Asn
                405                 410                 415
Ser Ser Leu Pro Glu His Gly Cys His Pro His Pro
            420                 425
```

<210> 32298
<211> 286
<212> PRT
<213> A.fumigatus

<400> 32298

```
Leu Leu Gln Arg Thr Asp Gly Ser Thr Ser Ser Ser Ala Ala Lys Asn
1                 5                  10                  15
Gln Ala Ser Arg Thr Ser Ser Asn Thr Trp Lys Ser His Arg Asn Gln
            20                  25                  30
Pro Arg Lys Thr Tyr Asp Lys Asp Thr Phe Pro Arg Pro Leu Leu Arg
        35                  40                  45
Asn Arg Ser Ala Ser Arg Ser Ala Ser Thr Ser Ser Ser Lys Trp Ser
    50                  55                  60
Asp Arg Gly Gly Asp Val Gln Pro Phe Ile Ala Leu Gly Met Ala His
65                  70                  75                  80
Gln Glu Asn Gly Ala Pro Gly Val Arg Leu Ala Thr His Leu Gly Val
                85                  90                  95
Pro Gly Thr Trp Ser Arg Asp His Gly Leu Gln Leu Phe Ser Met Gly
            100                 105                 110
Gly Asp Pro Ala Glu Leu Arg Gly Phe Met Val Lys Asn Pro Gly Leu
        115                 120                 125
Leu Pro Gly Met Lys Thr Leu Arg Ser Gly Ala Ile Arg Arg Arg Arg
    130                 135                 140
Arg Glu Met Ala Ala Ile Phe Ser Gly Cys Trp Arg Ser Cys Phe Glu
145                 150                 155                 160
Thr Gly Asp Gly Thr Gly Leu His His Val Pro Glu Asp Leu Trp Ser
                165                 170                 175
Glu Thr Val Asp Tyr Arg Glu Gln Pro Phe Val Ala Asp Ala Ile Ile
            180                 185                 190
Ala Asn Pro Pro Ser Phe Ala His Ile Ser Cys Ala Glu Lys Leu Gly
        195                 200                 205
Val Pro Leu Thr Leu Met Phe Thr Met Pro Trp Thr Pro Thr Gln Ala
    210                 215                 220
Phe Pro His Pro Leu Ala Asn Val Arg Pro Thr Arg Thr Lys Arg Ser
225                 230                 235                 240
Val Ala Asn Phe Ala Ser Tyr Ala Ile Val Glu Met Met Leu Tyr Glu
```

```
                245                 250                 255
Gly Leu Gly Asp Leu Leu Asn Lys Phe Arg Lys Arg Glu Leu Gly Leu
            260                 265                 270
Asp Pro Leu Glu Pro Phe Tyr Phe Thr Pro Gly Trp Lys Ile
        275                 280                 285

<210> 32299
<211> 70
<212> PRT
<213> A.fumigatus

<400> 32299
Gly Gly Arg Trp Gly Gly Pro Leu Gly Thr Thr Ile Ala Thr Pro Leu
1               5                   10                  15
Cys Thr Ser Pro Ser Ser Asp Thr Val Arg Phe Thr Gly Glu Thr Gly
            20                  25                  30
Gln Val Ser Ala Gln Arg Leu Gln Ala Thr Val Leu Asp Pro Glu Gly
        35                  40                  45
Ile Gly His Val Cys Cys Arg Cys Phe His Asp Cys His Asp Asn Tyr
    50                  55                  60
Trp Leu Lys Ser Glu Tyr
65                  70

<210> 32300
<211> 90
<212> PRT
<213> A.fumigatus

<400> 32300
Cys Leu Lys Ser Gln Asp Thr Ser Cys Ala Leu Leu Ser His Glu Val
1               5                   10                  15
Pro Gln Cys Ile Ser Leu Tyr Thr Trp Asp Leu Asp Ser Pro Lys Asp
            20                  25                  30
Ala Met Pro Pro Gln Gln Pro Thr Gly Gly Ile Thr Thr Ala Asp Trp
        35                  40                  45
Pro Gln Gln Ala Leu Ser Asp Leu Val Ala Ala Asp Arg His His Asn
    50                  55                  60
Pro Leu Leu Asp His Gly Met Asn Thr Gly Val Arg Ile Thr Gly Met
65                  70                  75                  80
Met Ala Val Ser Ala Glu Lys Gln Gln Ser
                85                  90

<210> 32301
<211> 223
<212> PRT
<213> A.fumigatus

<400> 32301
Ser Ser Ser Val Arg Thr Ile Lys Ala Pro Ile Pro Val Pro Ile Ala
1               5                   10                  15
Lys Glu Thr Lys Thr Arg Phe Asp Gln Ile Ser Thr Leu Phe Gln Asn
            20                  25                  30
Val Ile Pro Asp Val Thr Gly Leu Asn Ser Trp Arg Tyr Gln Arg Gln
        35                  40                  45
Leu Ser Gly Ala Ile Gln Glu Phe Ile Glu Ala Leu Ser Phe Asn His
    50                  55                  60
```

```
Tyr Leu Gln Thr Gln Ser Leu Ile Ser His Ala Glu Val Ser Lys His
65                  70                  75                  80
Leu Pro Ala Glu Ile Leu Val Thr Glu Glu Asp Tyr Leu Leu Gly Met
                85                  90                  95
Phe Asp Leu Thr Gly Glu Met Met Arg Phe Ala Ile Thr Ser Leu Ser
            100                 105                 110
Thr Gly Thr Met Gly Gln Glu Asp Ser Gly Gly Asp Asp Leu Ala Ala
        115                 120                 125
Arg Asp Ile Ser Gly Ala Gly Ala His His Ser Leu Pro Lys Leu Pro
    130                 135                 140
Ala Thr Gln Ala Gly Ile Val Val Asp Leu Arg Glu Met Arg Ser Ser
145                 150                 155                 160
Phe Glu Leu Leu Ser Val Pro Arg Arg His Ala Asn Asn Met Leu Arg
                165                 170                 175
Asp Met Gly Lys Lys Val Glu Val Met Gln Asn Ser Val Glu Lys Val
            180                 185                 190
Glu Arg Ala Ala Tyr Gly Ile Leu Val Arg Gly Ser Glu Arg Pro Ser
        195                 200                 205
Gly Trp Thr Pro Asp Leu Ser Ala Pro Val Asp Met Glu Val Tyr
    210                 215                 220
```

<210> 32302
<211> 134
<212> PRT
<213> A.fumigatus

```
<400> 32302
Met Gln Ile Leu Ser Asp Asn Asn His Pro Lys Thr Val Lys Pro Ser
1               5                   10                  15
Gly Gly Met Thr Thr Met Thr Val Asn Gln Ser Gln Phe Val Leu Ser
            20                  25                  30
Pro Gln Lys Gln Ser Lys Leu Gln Gln His His Pro Met Ala Gly Asn
        35                  40                  45
Lys Arg Ser Trp Glu Gly Asn Pro Val Arg Val Glu Lys Thr Gln Thr
    50                  55                  60
Asn Met Ala Val Ala Pro Val Asp Gln Pro Ser Thr His Ile Leu Ser
65                  70                  75                  80
Met Phe Glu Thr Phe Arg Asp Glu Leu Asp Gln His His Asp Arg Arg
                85                  90                  95
Glu Arg Val Ile Lys Thr Ser Arg Asp Ile Thr Ala Leu Ser Lys Lys
            100                 105                 110
Met Leu Val Pro Cys Pro Val Arg Pro Val Cys Ile His Ser His Ser
        115                 120                 125
Ser Ser Ile Arg Gly Arg
    130
```

<210> 32303
<211> 63
<212> PRT
<213> A.fumigatus

```
<400> 32303
Leu Leu Met Thr Gly Asn Ile Leu Pro His Ile Asn Ala Ala Pro Ala
1               5                   10                  15
Leu Gln Ala Asn Ala Lys Glu Leu Glu Lys His Met Leu Ala Asp Asn
            20                  25                  30
```

```
Leu Asp Gln Lys Leu Gln Arg Arg Pro Gln Pro Glu Glu Leu Ile Ser
        35                  40                  45
Gln Gly Ile Leu Thr Glu Asp Glu Asp Pro Arg Cys Pro Ala Val
    50                  55                  60
```

<210> 32304
<211> 186
<212> PRT
<213> A.fumigatus

<400> 32304

```
Arg Glu Pro Arg Thr Ala Met Val Leu Ala Arg Asp Arg Glu Leu Leu
1               5                   10                  15
Arg Asp Thr Leu Arg Thr Gln Arg Thr Ala Leu Thr Ala Ala Asp Arg
            20                  25                  30
Glu Asn Ile Leu Lys Pro Tyr Leu Pro Asp Pro Ser Glu Leu Ala Arg
        35                  40                  45
Arg Pro His Arg Leu Lys Lys Pro Pro Arg Lys Ala Pro Ile Arg Thr
    50                  55                  60
Phe Leu Lys Ser Arg Leu His Gln Leu Thr Tyr Thr Phe Ile His Ile
65                  70                  75                  80
Val Tyr Gly Ile Ile Leu Arg Leu Val Gln Ser Tyr His Ala Leu Val
                85                  90                  95
Asp Gln Val Leu Ala Ile Val Tyr Tyr His His Arg Thr Pro Lys Leu
            100                 105                 110
Ile Arg Lys Asp Val Lys Gly Leu Arg Arg Leu Pro Gly His Leu Thr
        115                 120                 125
Val Val Leu Ser Leu Arg Lys Glu Asp Asp Ala Leu Ala Ile Leu Met
    130                 135                 140
Asp Glu Val Ala Glu Leu Ala Ala Trp Ser Val Ser Ala Gly Ile Pro
145                 150                 155                 160
Met Leu Ser Val Tyr Glu Lys Ser Gly Met Ser Arg His Phe Thr Leu
                165                 170                 175
Gly Ile Leu Ala Ser Ser Ser Ala Leu Arg
            180                 185
```

<210> 32305
<211> 204
<212> PRT
<213> A.fumigatus

<400> 32305

```
Val Val Asp His Ser Leu Gly Ile Leu Lys Ser Cys Ile Pro Met Leu
1               5                   10                  15
His His Val Val Ala Ser Lys Phe Ala Ser Tyr Tyr Gly Ser Ile Pro
            20                  25                  30
Gln Gln Pro Thr Leu Arg Leu Phe Ala Pro His His Ser Val Tyr Glu
        35                  40                  45
Pro Ala Leu Asp His Asp Lys Ala Arg Arg Val Asn Thr Asp Ser Leu
    50                  55                  60
Thr Leu Leu Leu Leu Ser Ala Thr Asp Gly Arg Glu Thr Ile Val Asp
65                  70                  75                  80
Leu Thr Gln Thr Leu Ala Glu Met Ser Gln Asn Gly Lys Leu Ser Pro
                85                  90                  95
Gly Asp Ile Thr Met Glu Leu Val Asp Ala Glu Ile Ser Glu Ile Thr
            100                 105                 110
```

```
Thr Gln Pro Leu Gln Pro Ala Ser Leu Ser Ile Gly Asp Arg Gln Thr
        115                 120                 125
Thr Ala Val His Pro Thr Ile Ala Val Lys Pro Glu Pro Asp Leu Leu
    130                 135                 140
Leu Val Phe Ala Pro Phe Leu Lys Leu Asp Gly Tyr Pro Pro Trp His
145                 150                 155                 160
Ile Arg Leu Thr Glu Met Phe Cys Thr Gly Gly Lys Gly Ser Gly Val
                165                 170                 175
Thr Ser Tyr Gly Asp Ala Val Glu Tyr Gln Gly Phe Leu Arg Gly Leu
            180                 185                 190
Trp His Tyr Ala Gly Ala Gln Met Arg Phe Gly Arg
        195                 200
```

<210> 32306
<211> 365
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (34)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32306

```
Arg Gly Glu Arg Pro Thr Ala Ser Gln Ser Arg Lys Lys Arg Ser Gln
1               5                   10                  15
Val Ser Val Asn His Lys Pro Ser Thr Arg Leu Asp Cys Ile Gly Arg
            20                  25                  30
Gly Xaa Ser Ser Arg Val Tyr Arg Val Met Ala Glu Asn Tyr Lys Phe
        35                  40                  45
Phe Ala Leu Lys Arg Val Asn Leu Glu Asp Val Asp Pro Val Thr Leu
    50                  55                  60
Ala Gly Tyr Lys Gly Glu Ile Asp Leu Leu Lys Arg Leu Glu Asn Ile
65                  70                  75                  80
Asp Arg Val Val Arg Leu Phe Asp Trp Glu Leu Asn Ser Asp Lys His
                85                  90                  95
Thr Leu Ser Val Leu Met Glu Ile Gly Glu Ser Asp Leu Glu Lys Ile
            100                 105                 110
Leu Thr Tyr Arg Leu Asn Ala Glu Asp Ala Val Phe Asp Ile Asn Phe
        115                 120                 125
Thr Arg Tyr Tyr Trp Lys Glu Met Leu Glu Cys Val Gln Ala Val His
    130                 135                 140
Asn Cys Asn Ile Val His Ser Asp Leu Lys Pro Ala Asn Phe Leu Leu
145                 150                 155                 160
Val Gln Gly Arg Leu Lys Leu Ile Asp Phe Gly Ile Ala Asn Ala Ile
                165                 170                 175
Gln Asp Asn Thr Val Asn Val His Arg Glu Gln Gln Val Gly Thr Pro
            180                 185                 190
Asn Tyr Met Ser Pro Glu Ala Leu Ile Asp Ser Asn Ala Ser Leu Gly
        195                 200                 205
Leu Pro Ala Ser Val Gly Lys Met Met Lys Leu Gly Lys Pro Ser Asp
    210                 215                 220
Val Trp Ser Leu Gly Cys Ile Leu Tyr Lys Met Val Tyr Gly Gln Pro
225                 230                 235                 240
Pro Phe Ala Lys Ile Ala Lys Tyr Tyr Glu Arg Ile Met Ala Ile Pro
                245                 250                 255
```

```
Asn Pro Lys Val Gln Ile Asp Phe Pro Ala Phe Gly Val Gly Gly Val
            260                 265                 270
Ala Ile Pro Pro Gly Leu Ile Arg Thr Leu Lys Arg Cys Leu Gln Arg
        275                 280                 285
Asp Gln Thr Leu Arg Pro Thr Val Glu Glu Leu Leu Ser Gln Arg Asp
    290                 295                 300
Ser Phe Leu Tyr Pro Asp Ala Gln Leu Glu Gly Thr Val Pro Val Asn
305                 310                 315                 320
Gln Asp Met Leu Gly Arg Ile Leu Met Asn Val Val His His Cys Arg
                325                 330                 335
Thr Arg Gly Ile Pro Lys Asp Glu Glu Ile Ala Ala Trp Pro Ala Gly
            340                 345                 350
Phe Tyr Ala Lys Ile Lys Ala Ala Leu Glu Glu Asn Thr
        355                 360                 365
```

<210> 32307
<211> 292
<212> PRT
<213> A.fumigatus

<400> 32307

```
His Asp Ser Val Leu Gly Asp Thr Leu Val Lys Gly His Ile Arg Ile
1               5                   10                  15
Asp Arg Ala Ile Val Leu Arg Ser Ile Gly Asp Leu Arg Ile Phe Thr
            20                  25                  30
Pro Tyr Asp Leu Ser Ala Cys Arg Asp Glu Thr Gln Phe Gly Asp Val
        35                  40                  45
Asp Phe Asp Asp Gly Ser Leu Gly Gln Asp Ser Gln Leu Gly Val Gln
    50                  55                  60
Arg Val Leu Arg Val Leu Leu Asp Ala Gln Asp Gly Gln Leu His Gly
65                  70                  75                  80
Asp Ala Glu Leu Arg Ala Asp Lys Leu Ser Val Gly Leu Gln Arg Lys
                85                  90                  95
Lys Leu Arg Gly Lys Glu Gly Ser Ile Leu Arg Asp Ile Gly Leu Leu
            100                 105                 110
Val Thr Gln Thr His Arg Pro Asp Glu Thr Leu Val Leu Asp Arg Ser
        115                 120                 125
Pro Gly Glu Val Ala Thr Asp Lys Cys Gly Leu Gly Asp His Pro Leu
    130                 135                 140
Pro Arg Leu Leu Val Arg Leu Leu Ala Arg Val Asp Asp Leu Glu His
145                 150                 155                 160
Leu Leu Leu Thr Asp Thr Leu His Leu Gly Gln Gly His Arg Glu Leu
                165                 170                 175
Gly Arg Leu Leu Ser Thr Leu Ile Leu Asp Ser Thr Gly Gln Ser Leu
            180                 185                 190
Gly Val Gly Arg Leu Pro Thr Val Glu Gln Val Leu Gly Gln Arg Gly
        195                 200                 205
Leu Gly Pro Leu Val Gly Gly Gly Gly Leu Asp Leu Leu Ser Leu Pro
    210                 215                 220
Cys Leu Asp Ala Pro Ala Pro Leu Asp Leu Pro Gly Leu Thr Leu Leu
225                 230                 235                 240
Leu Val Leu Leu Gly Pro Gln Ala Pro Pro Val Pro Gly His Pro Gly
                245                 250                 255
Asp Arg Leu Val Arg Phe Pro Gly Leu Gly Val Leu Arg Lys Pro Pro
            260                 265                 270
Leu Leu Gly Ser Asp Leu Pro Tyr Arg Gly Gly Phe Trp Pro Pro Ala
```

```
        275                 280                 285
Pro Ile Phe Pro
    290

<210> 32308
<211> 202
<212> PRT
<213> A.fumigatus

<400> 32308
Arg Glu Tyr Gly Gly Gly Trp Pro Lys Ala Ala Thr Val Arg Glu Val
1               5                  10                  15
Gly Thr Lys Glu Gly Gly Leu Pro Gln Asp Ala Lys Ala Gly Glu Ser
            20                  25                  30
His Gln Pro Val Ser Arg Met Pro Arg Asn Arg Arg Gly Leu Arg Ala
        35                  40                  45
Lys Gln Tyr Gln Gln Lys Arg Gln Ala Arg Lys Ile Gln Arg Gly Arg
    50                  55                  60
Gly Ile Lys Ala Arg Glu Gly Lys Lys Val Lys Ser Ser Ala Pro Asp
65                  70                  75                  80
Glu Arg Ser Lys Thr Pro Leu Pro Gln Tyr Leu Phe Asp Arg Trp Gln
                85                  90                  95
Ala Thr Asn Ala Lys Ala Leu Ser Ser Ala Ile Lys Asp Lys Arg Ala
            100                 105                 110
Glu Lys Ala Ala Lys Phe Ala Val Pro Leu Pro Lys Val Lys Gly Ile
        115                 120                 125
Ser Glu Glu Glu Met Phe Lys Val Val Asn Thr Gly Lys Lys Thr His
    130                 135                 140
Lys Lys Ser Trp Lys Arg Met Ile Thr Lys Pro Thr Phe Val Gly Ser
145                 150                 155                 160
Asp Phe Thr Arg Arg Pro Val Lys Tyr Glu Arg Phe Ile Arg Pro Met
                165                 170                 175
Gly Leu Arg Tyr Lys Lys Ala Asn Val Thr Gln Tyr Ala Ala Phe Leu
            180                 185                 190
Pro Ser Lys Leu Phe Ala Leu Gln Pro Asn
        195                 200

<210> 32309
<211> 99
<212> PRT
<213> A.fumigatus

<400> 32309
Gln Phe Ile Ser Pro Glu Leu Gly Val Thr Val Gln Leu Pro Ile Leu
1               5                  10                  15
Gly Val Lys Lys Asn Pro Gln Asn Pro Leu Tyr Thr Gln Leu Gly Val
            20                  25                  30
Leu Thr Lys Gly Thr Ile Ile Glu Val Asn Val Ser Glu Leu Gly Leu
        35                  40                  45
Val Thr Thr Ser Gly Lys Val Val Trp Gly Lys Tyr Ala Gln Ile Thr
    50                  55                  60
Asn Thr Pro Glu Asn Asp Gly Thr Val Asn Ala Tyr Val Thr Phe His
65                  70                  75                  80
Gln Cys Ile Ser Gln Asp Arg Val Met Leu Ile Phe Val Arg Arg Val
                85                  90                  95
Leu Leu Val
```

<210> 32310
<211> 66
<212> PRT
<213> A.fumigatus

<400> 32310
Ala Phe Cys Val Ala Thr Gln Leu Thr Ile Tyr Gln Pro Gly Ala Arg
1 5 10 15
Arg His Arg Ala Thr Ala His Pro Gly Arg Gln Glu Glu Pro Ala Glu
20 25 30
Pro Ser Val His Pro Thr Gly Ser Pro Asp Gln Gly Asn His His Arg
35 40 45
Ser Gln Arg Leu Arg Ile Gly Ser Arg His Asp Lys Arg Lys Gly Arg
50 55 60
Met Gly
65

<210> 32311
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32311
Phe Ser Ser Leu Tyr Ser Trp Glu Ala Phe Lys Ala Arg Thr Val Ile
1 5 10 15
Pro Thr Ile Lys Ser Met His Leu Val His Arg Ser Asp Leu Gln Val
20 25 30
Ser Arg Asn Arg His His Asp Phe Asp Glu Gln Ile Phe Thr Ser Ala
35 40 45
Val Asp Tyr Leu Val Tyr Ile His Ile Arg Arg Ser Pro Ser Tyr Gly
50 55 60
Ile Tyr Ser Val Asn Ile Arg Ile Leu
65 70

<210> 32312
<211> 101
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (13),(29),(35),(39)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32312
Leu His Tyr Asn Leu Tyr Gln Leu Asp Leu Pro Phe Xaa Cys Ile Leu
1 5 10 15
Phe Phe Leu Gly Pro His Cys Glu Glu Lys Lys Lys Xaa Met Thr Phe
20 25 30
Gly Thr Xaa Arg Gly Arg Xaa Ala Leu Ser Leu Ser Ile Ala Phe Thr
35 40 45
Thr Leu Ala Thr Val Phe Thr Ile Ile Arg Val Tyr Thr Arg Ile Phe
50 55 60
Leu Val Lys Gln Met Gly Ala Asp Asp Trp Ala Ile Ile Val Ala Leu

```
65                  70                  75                  80
Val Arg Leu Ser Gln Glu Phe His Ser Arg Gly Arg Ile Cys Arg Leu
                85                  90                  95
Thr Leu Ala Gly Leu
            100
```

<210> 32313
<211> 145
<212> PRT
<213> A.fumigatus

<400> 32313

```
Ser Asn Leu Cys Val Phe Pro Thr Ser Thr Ser Ile Tyr Arg Lys Asn
1               5                   10                  15
Gln Thr Asn Ser Gln Leu Leu Asp Asp Asn Pro Gly Ala Ala Lys Trp
            20                  25                  30
Ser Ala Ile Glu Cys Asn Val Ala Ile Ile Cys Ala Cys Leu Pro Gly
        35                  40                  45
Ile Arg Ala Phe Ile Thr Lys Leu Leu Pro Arg Phe Leu Ser Ser Tyr
    50                  55                  60
Lys Ser Lys Ser Asn Thr Arg Thr Arg Thr Gln Arg Ser His Val Thr
65                  70                  75                  80
His Phe Ser Asn Phe His Ser Ser Ile Ala Asp Arg Gln Ser Lys Phe
                85                  90                  95
His Met Gln Ser Val Ser His Gly Pro Glu Gly Gly Asp Tyr Lys Ala
            100                 105                 110
Ser Gly Phe Glu Glu Gly Thr Ser Asn Lys Ile Lys Val Thr Thr Ile
        115                 120                 125
Val Ser Gln Glu Ser Val Ser Asn Asp Ala Ser Ser Val Arg Gln Leu
    130                 135                 140
Leu
145
```

<210> 32314
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32314

```
Phe Asn Ser Trp Gly Val Trp Ser Leu Ala Gln Thr Leu Asp Gln His
1               5                   10                  15
Gly Asn Ile Ser Ser Ser Ser His Ile Asn Ser Gly Tyr Tyr Tyr Ser
            20                  25                  30
Ile Thr Leu Leu Gly Ile Asp Tyr Phe Arg Leu Ser Phe Asn Tyr Leu
        35                  40                  45
Ser Ala His Glu Pro Lys Asp Val Ser Gln Arg Ile
    50                  55                  60
```

<210> 32315
<211> 135
<212> PRT
<213> A.fumigatus

<400> 32315

```
Met Ile Thr Gln Ala Leu Pro Ser Gly Pro Pro Leu Asn Ala Thr Ser
1               5                   10                  15
```

```
Pro Leu Ser Ala Pro Ala Ser Leu Ala Ser Val Pro Leu Ser Pro Ser
            20                  25                  30
Ser Ser Leu Ala Ser Ser Pro Ala Thr Arg Ala Arg Ala Thr Pro Ala
        35                  40                  45
Arg Gly Pro Asn Ala Ala Met Leu Pro Thr Ser Pro Thr Ser Ile Leu
    50                  55                  60
Pro Ser Leu Thr Ala Ser Pro Asn Ser Thr Cys Ser Leu Ser Ala Thr
65                  70                  75                  80
Ala Arg Arg Ala Ala Thr Thr Arg Leu Ala Val Ser Arg Lys Ala Leu
                85                  90                  95
Arg Ile Arg Ser Lys Ser Pro Pro Leu Cys His Arg Asn Pro Cys Arg
            100                 105                 110
Met Met Leu Arg Val Cys Gly Ser Tyr Tyr Lys Gly Cys Tyr Pro Trp
        115                 120                 125
Thr Gly Ser Phe Cys His Ala
    130                 135

<210> 32316
<211> 76
<212> PRT
<213> A.fumigatus

<400> 32316
Ser His Pro Ala Arg Asn Arg Ser Pro Gly Glu Ala Gly Ser Ile Arg
1               5                   10                  15
Pro Gln Gly Arg Gln Arg Val Val Leu Arg Val Pro Arg Arg His Asp
            20                  25                  30
Pro Gly Gly Pro Val Val Ala Pro His Thr Ala Pro Glu Ser Gly Ala
        35                  40                  45
Thr Gly Pro Ala Gln Pro Arg Arg Leu Pro Gly Arg Ser Pro Arg Ala
    50                  55                  60
Arg Arg His Trp Pro Cys Thr Pro Arg Gln Cys Arg
65                  70                  75

<210> 32317
<211> 95
<212> PRT
<213> A.fumigatus

<400> 32317
Thr Ser Gln Ile Thr Leu Asn Met His Phe Ile Tyr Gln Ala Leu Ser
1               5                   10                  15
Ala Leu Ala Ala Ser Leu Leu Phe Ser Ser Ala Thr Ala Gly Ile Ala
            20                  25                  30
His Cys Lys Val Gly Glu Ala Trp Pro Asp Ser Ser Asp Cys His Asn
        35                  40                  45
Phe Tyr Glu Cys Ala Ser Glu Gly Ala Pro Val Leu Lys Thr Cys Gly
    50                  55                  60
Pro Gly Thr Ala Tyr Cys Pro Thr Thr Gly Val Cys Val His Glu Glu
65                  70                  75                  80
Asn Val Pro Ser Cys Phe His Arg Gly His His Ser Glu Asp Glu
                85                  90                  95

<210> 32318
<211> 338
<212> PRT
```

<213> A.fumigatus

<400> 32318

```
Thr Val Thr Met Pro Arg Thr Arg Pro Arg Arg Leu Asn His Leu Gln
1               5                  10                  15
Gly Ile Asn Val Asp Gln Met Ala Gln Ile Ala Asp Ala Ala Asn Asn
            20                  25                  30
Asp Tyr Leu Arg Leu Glu Asn Leu Asp Val Asn Ile Pro Pro Glu Pro
        35                  40                  45
Glu Ala Leu Ala Tyr Met Gln Gln Ala Val Ala Asp Glu Ala Cys Asn
    50                  55                  60
Ser Tyr Leu Pro Phe Thr Gly Lys Ala Arg Leu Lys Asp Ile Ala Ala
65                  70                  75                  80
Arg His Val Ser Gln Val Ser Gly Met Ala Tyr Thr Gly Gln Arg His
                85                  90                  95
Cys Val Ile Ser Ala Gly Gly Leu Ser Gly Ile Leu Asn Val Leu Leu
            100                 105                 110
Ala Thr Ile Glu Glu Gly Asp Glu Val Ile Leu Thr Asp Pro Thr Tyr
        115                 120                 125
Arg Gly Leu Leu Asn Arg Val Leu Leu Ala Gly Gly Val Pro Lys Leu
    130                 135                 140
Val Pro Phe Thr Phe Gln Pro Gly Gln Glu Trp Arg Leu Asp Gln Ala
145                 150                 155                 160
Ala Leu Arg Ala Ala Ile Thr Glu Lys Thr Thr Ala Ile Leu Leu Met
                165                 170                 175
Ser Pro Ser Met Pro Ser Gly Gly Tyr Leu Thr Arg Asp Asp Trp Thr
            180                 185                 190
Leu Val Ala Glu Ile Cys Val Gln Asn Asp Leu Leu Leu Ile Leu Asp
        195                 200                 205
Thr Ala Met Glu Arg Leu Leu Phe Asp Ala Arg Pro Val Ile His Pro
    210                 215                 220
Ala Gly Phe Pro Gly Met Phe Glu Arg Thr Val Thr Val Gly Ser Ser
225                 230                 235                 240
Ala Lys Glu Leu Arg Met Ile Gly Trp Arg Val Gly Trp Ile Val Gly
                245                 250                 255
Pro Glu Glu Leu Ile Ser Asp Ile Ala Ala Val Cys Met Ala Asn Val
            260                 265                 270
Val Val Pro Val Gly Ile Ala Gln Glu Ala Val Ala Val Ala Leu Asp
        275                 280                 285
Arg Ser Pro Gln Thr Leu Ala Pro Tyr Val Ala Gln Leu Gln Ala Arg
    290                 295                 300
Arg Asp Arg Val Val Ala Glu Leu Glu Gly Leu Pro Val Gly Val Pro
305                 310                 315                 320
Ala Gly Gly Trp Ser Leu Leu Leu Arg Val Ser Asp Phe Gly Leu Asp
                325                 330                 335
Gly Ser
```

<210> 32319
<211> 275
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (207),(217),(224)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32319

```
Gly His Asp Leu Glu Leu Ser Ile Asn His Pro Phe Lys Arg Ser Ile
1               5                  10                  15
Glu Asn Gln Val Ser Ile Ser Arg Tyr Trp Leu Ala Ser Ser Leu Leu
            20                  25                  30
Leu Ser Val Ala Tyr Ser Gly Ile Ser Thr Tyr Ser Asn His Pro Ala
        35                  40                  45
Val Thr Lys Leu Pro Arg Ser Pro Ser Thr Cys Thr Ser Ser Thr Arg
    50                  55                  60
Pro Cys Leu Pro Trp Arg Pro Leu Ser Ser Ser His Pro Pro Pro Gln
65                  70                  75                  80
Gly Ser Arg Thr Ala Arg Ser Glu Arg His Gly Pro Ile Pro Pro Thr
                85                  90                  95
Ala Thr Thr Ser Thr Ser Ala Arg Pro Lys Ala Pro Pro Ser Ser Arg
            100                 105                 110
Pro Ala Ala Pro Val Leu Pro Thr Ala Arg Arg Arg Val Phe Val Ser
        115                 120                 125
Thr Arg Lys Thr Ser Pro Ala Ala Ser Thr Glu Val Ile Thr Leu Arg
    130                 135                 140
Met Ser Ser Cys Thr Leu Met Arg Gly Asp Trp Tyr Thr Ala Arg Cys
145                 150                 155                 160
Ile Ile His Ala Leu Glu Thr Gly Leu His Val Phe Leu Phe Trp Val
                165                 170                 175
Leu Tyr His Val Leu Ile Glu Gly Asp Arg Leu Val Pro Val Ile Arg
            180                 185                 190
Ile Val Trp Met Leu Arg Leu Ile Ile Glu Asn Ser Cys His Xaa Tyr
        195                 200                 205
Gln Tyr Leu Ser Ile Ala Cys Pro Xaa Arg Phe Leu Gln Phe Cys Xaa
    210                 215                 220
Tyr Thr Asn Leu Thr Asn Leu Leu Arg Ser Asn Gln Thr Asn Met Asp
225                 230                 235                 240
His Val His Glu Asn Arg Thr Thr Ser Ser Ile Gln Glu Asp Gln Ala
                245                 250                 255
Tyr Ser Ile Ser Gly Ala Pro Pro His Ser Ser Gln Ile Ala Ser Leu
            260                 265                 270
Leu Asp Arg
        275
```

<210> 32320
<211> 322
<212> PRT
<213> A.fumigatus

<400> 32320

```
Val Met Ile Tyr Gly Cys Val Val Met Ser Leu Thr Ser Ile Gln Ile
1               5                  10                  15
Thr Glu Leu Leu Leu Glu Arg Trp Lys Ser Lys Arg Lys His Tyr Leu
            20                  25                  30
Ile Leu Ser Ala Ala Gly Lys Pro Ile Trp Thr Arg His Gly Asp Gly
        35                  40                  45
Gly Leu Ile Ser Gly Tyr Ile Gly Val Ile Leu Thr Ile Ile Ser Phe
    50                  55                  60
Tyr Glu Asp Ala Asn Asp Arg Leu Thr Ser Phe Cys Ala Gly Asp Thr
65                  70                  75                  80
```

```
Lys Phe Val Ile Val Thr Lys Gly Pro Leu Tyr Leu Val Ala Ile Ser
                85                  90                  95
Arg Leu Leu Glu Ser Asp Thr Gln Leu Lys Leu Gln Leu Glu Ala Leu
            100                 105                 110
Tyr Met Gln Ile Leu Ser Thr Leu Thr Leu Pro Ser Leu Thr His Leu
        115                 120                 125
Phe Ser Val Arg Pro Ser Thr Asp Leu Lys Arg Pro Leu Gln Gly Ser
    130                 135                 140
Glu Thr Leu Leu Ser Thr Leu Ala Asp Ser Phe Thr Lys Gly Ser Pro
145                 150                 155                 160
Ser Thr Phe Leu Ser Ala Leu Glu Cys Leu Lys Ile Arg Lys Ser His
                165                 170                 175
Arg Gln Ala Ile Asn Asn Ala Leu Leu Lys Thr Lys Val Ser Ser Leu
            180                 185                 190
Leu Tyr Gly Leu Val Val Ala Gly Gly Arg Leu Val Ser Val Val Arg
        195                 200                 205
Pro Lys Lys His Ser Leu His Pro Gly Asp Leu Gln Leu Leu Phe Asn
    210                 215                 220
Met Ile Phe Glu Ala Glu Gly Ile Lys Ala Gly Gly Gly Glu Ser Trp
225                 230                 235                 240
Ile Pro Val Cys Leu Pro Gly Phe Asn Ser Ser Gly Tyr Leu Tyr Met
                245                 250                 255
Tyr Val Ser Phe Leu Asp Leu Arg Glu Asn Ser Gly Thr Ser Ala Ser
            260                 265                 270
Glu Thr Thr Thr Thr Glu Gln Ser Val Ala Ile Ile Leu Ile Ser Pro
        275                 280                 285
Asn Lys Glu Gly Phe Phe Glu Met Gln Glu Met Arg Asn Ser Leu Val
    290                 295                 300
Glu Val Cys Lys Ser Ser Ser Pro Arg Gly Trp Lys Asp Arg Arg Glu
305                 310                 315                 320
Ser Ile
```

<210> 32321
<211> 91
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (57)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32321

```
Pro Asn Ala Ser Pro Gly Ala Glu Glu Val Ser Arg Asn Ala Gly Phe
1               5                   10                  15
Phe Val Tyr Leu Thr Pro Ser Ala Ala Leu Gly Ser Ile Thr Ala Cys
            20                  25                  30
Asn Gly His Pro Gln Thr Cys Thr Ser Asn Ser Leu Lys Glu Lys Ser
        35                  40                  45
Asp Asn Glu Trp Glu Met Gly Asn Xaa Ala Phe Thr Leu Thr Asn Arg
    50                  55                  60
Arg His Gly Glu Lys Thr Ile Ala Tyr Ala Glu Ser His Asp Gln Ala
65                  70                  75                  80
Leu Val Pro Ser Arg Asp Leu Gln Cys Arg Pro
                85                  90
```

<210> 32322
<211> 66
<212> PRT
<213> A.fumigatus

<400> 32322
Arg Arg Arg Ser Ala Pro His Arg Arg Tyr Gly Gly Arg Ala Tyr Glu
1 5 10 15
Thr Trp Ser Arg Glu Gly Arg Gln Gln Gly Arg Tyr Pro Thr Gln Arg
20 25 30
Tyr His Gly Thr Arg Gln Trp Trp Arg Pro Ser Glu Arg Arg Trp Trp
35 40 45
Arg Gly Gln Gly Gln Ser Asp Arg Gln Arg Ala Arg Arg Arg Pro Gly
50 55 60
Arg Arg
65

<210> 32323
<211> 293
<212> PRT
<213> A.fumigatus

<400> 32323
Ser Ser Val Ser Pro Leu Pro Arg Ser Ala Met Ser Ser Val Ala Thr
1 5 10 15
Asn Phe Phe Ser Leu Val Gly Asp Lys Thr Leu Met Met Trp Leu Cys
20 25 30
Asp Lys Glu Met Tyr Thr His Met Ser Val Leu Thr Glu Phe Thr Pro
35 40 45
Thr Ile Glu Arg Gly Met Ala Leu His Lys Met Ile Arg Leu Val Thr
50 55 60
His Gly Leu Gly Gly Glu Gly Tyr Leu Asn Phe Glu Gly Asn Glu Phe
65 70 75 80
Gly His Pro Glu Trp Leu Asp Phe Pro Arg Ala Gly Asn Asn Asn Ser
85 90 95
Phe Trp Tyr Ala Arg Arg Gln Leu Asn Leu Thr Glu Asp His Leu Leu
100 105 110
Arg Tyr Lys Phe Leu Asn Glu Phe Asp Arg Ser Met Gln Leu Thr Glu
115 120 125
Glu Lys Tyr Gly Trp Leu His Ser Pro Gln Ala Tyr Val Ser Leu Lys
130 135 140
His Glu Ile Asp Lys Val Leu Ala Phe Glu Arg Ala Gly Leu Leu Trp
145 150 155 160
Ile Phe Asn Phe His Pro Thr Glu Ser Phe Thr Asp Tyr Arg Val Gly
165 170 175
Val Glu Gln Ala Gly Thr Tyr Arg Ile Val Leu Asp Thr Asp Asp Pro
180 185 190
Glu Phe Gly Gly Phe Gly Arg Asn Leu Lys Glu Thr Arg Phe Phe Thr
195 200 205
Thr Asp Met Pro Trp Asn Gly Arg Ser Asn Tyr Leu Gln Val Tyr Leu
210 215 220
Pro Thr Arg Thr Ala Leu Val Cys Thr Pro Ser Thr Phe Pro Phe Val
225 230 235 240
Gly Asp Leu Arg Ala Asn Lys Lys Leu Gln Cys Arg Ser Ser Pro Trp
245 250 255

```
Lys Lys His Cys Ser His Leu Asn Gly Phe Met Pro Arg Leu Gly Arg
            260                 265                 270
Gly Gln Cys Glu Ser Leu His Ile Asp Ile Lys Tyr Val Ala Leu Pro
        275                 280                 285
Asn Asn Leu Pro Gln
    290
```

<210> 32324
<211> 302
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (176)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32324

```
Ile Met Phe Lys Leu Thr Leu Arg Lys Ile Ile Thr Phe Thr Val Asp
1               5                  10                  15
Asp Gly Leu Glu Thr Ala Asp Gly Val Leu Glu Val Asp Gln Leu Thr
            20                  25                  30
Leu Asp Thr Ser Glu Asp Leu Gly Asp Ser Glu Arg Leu Ala Gln Glu
        35                  40                  45
Thr Leu Glu Leu Thr Ser Thr Leu Asp Gly Glu Leu Val Ser Phe Arg
    50                  55                  60
Lys Phe Val His Thr Gln Asn Gly Asn Asp Ile Leu Glu Gly Leu Val
65                  70                  75                  80
Leu Leu Glu His Leu Leu Asp Thr Gly Ser Asp Gly Val Val Leu Leu
                85                  90                  95
Thr Asp Asp Thr Gly Val Glu His Thr Arg Leu Gly Val Glu Arg Val
            100                 105                 110
Asp Ser Arg Val Asp Thr Gln Leu Arg Asp Thr Thr Gly Gln Asp Ser
        115                 120                 125
Gly Gly Val Gln Val Ser Glu Gly Gly Gly Gly Gly Arg Val Ser Gln
    130                 135                 140
Ile Val Ser Gly His Val Asp Gly Leu Asp Gly Gly Asn Arg Thr Leu
145                 150                 155                 160
Leu Gly Gly Gly Asp Thr Leu Leu His Thr Thr His Val Asp Gly Xaa
                165                 170                 175
Gly Gly Leu Val Thr Asp Gly Arg Gly Asp Thr Thr Glu Lys Gly Arg
            180                 185                 190
His Leu Arg Thr Gly Leu Gly Glu Thr Glu Asn Val Val Asn Glu Glu
        195                 200                 205
Gln His Val Leu Thr Leu Leu Val Thr Glu Val Leu Gly Asn Gly Gln
    210                 215                 220
Thr Gly Lys Gly Asp Thr Gly Thr Gly Thr Gly Gly Leu Val His Leu
225                 230                 235                 240
Ser Glu His Gln Cys Asp Leu Gly Phe Thr Leu Glu Leu Asn Asp Thr
                245                 250                 255
Ser Leu Leu His Phe Val Val Gln Ile Val Thr Leu Thr Ser Thr Pro
            260                 265                 270
Pro Asn Thr Ser Glu Asp Gly Val Thr Thr Val Gly Leu Gly Asn Val
        275                 280                 285
Gly Ser Thr Trp Phe Ala Leu Leu Lys Arg Ser Ser Glu Asn
    290                 295                 300
```

<210> 32325
<211> 315
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (119)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32325
Arg Lys Pro Cys Arg Thr Asn Ile Ala Lys Ala His Gly Gly Tyr Ser
1 5 10 15
Val Phe Thr Gly Val Gly Gly Arg Thr Arg Glu Gly Asn Asp Leu Tyr
20 25 30
His Glu Met Gln Glu Thr Gly Val Ile Gln Leu Glu Gly Glu Ser Lys
35 40 45
Val Ala Leu Val Phe Gly Gln Met Asn Glu Pro Pro Gly Ala Arg Ala
50 55 60
Arg Val Ala Leu Thr Gly Leu Thr Ile Ala Glu Tyr Phe Arg Asp Glu
65 70 75 80
Glu Gly Gln Asp Val Leu Leu Phe Ile Asp Asn Ile Phe Arg Phe Thr
85 90 95
Gln Ala Gly Ser Glu Val Ser Ala Leu Leu Gly Arg Ile Pro Ser Ala
100 105 110
Val Gly Tyr Gln Pro Thr Xaa Ala Val Asp Met Gly Gly Met Gln Glu
115 120 125
Arg Ile Thr Thr Thr Lys Lys Gly Ser Ile Thr Ser Val Gln Ala Val
130 135 140
Tyr Val Pro Ala Asp Asp Leu Thr Asp Pro Ala Pro Ala Thr Thr Phe
145 150 155 160
Ala His Leu Asp Ala Thr Thr Val Leu Ser Arg Gly Ile Ser Glu Leu
165 170 175
Gly Ile Tyr Pro Ala Val Asp Pro Leu Asp Ser Lys Ser Arg Met Leu
180 185 190
Asp Pro Arg Ile Val Gly Glu Glu His Tyr Ala Val Ala Thr Arg Val
195 200 205
Gln Gln Met Leu Gln Glu Tyr Lys Ser Leu Gln Asp Ile Ile Ala Ile
210 215 220
Leu Gly Met Asp Glu Leu Ser Glu Ala Asp Lys Leu Thr Val Glu Arg
225 230 235 240
Ala Arg Lys Leu Gln Arg Phe Leu Ser Gln Pro Phe Thr Val Ala Gln
245 250 255
Val Phe Thr Gly Ile Glu Gly Lys Leu Val Asp Leu Lys Asp Thr Ile
260 265 270
Arg Ser Phe Lys Ala Ile Ile Asn Gly Glu Gly Asp Asp Leu Pro Glu
275 280 285
Gly Lys Phe Glu His Asp Leu Ser Ser Ile Ile Arg Asn Lys Val Leu
290 295 300
Met Thr Phe Phe Ser Cys Leu Leu His Gly Trp
305 310 315

<210> 32326
<211> 235
<212> PRT

<213> A.fumigatus

<400> 32326

```
Ser Ser Ile Val Ser Arg Ser Ser Leu Ser Ser Ile Cys Thr Arg Cys
1               5                  10                  15
Cys Arg Ser Leu Leu Pro Gly Phe Pro Ala Leu Arg Ala Ala Ser Ser
            20                  25                  30
Ser Ala Ser Ser Arg Phe Leu Val Phe Lys Ser Ser Ser Ser Phe Trp
        35                  40                  45
Ile Ala Gly Leu Ala Ala Thr Ser Ala Ala Arg Trp Ala Leu Leu Pro
    50                  55                  60
Tyr Ala Pro Ser Ser Ser Ala Leu Ala Ile Val Ser Ser Val Cys Thr
65                  70                  75                  80
Leu Thr Thr Ser Pro Ser Ile Ser Val Ser Ser Ala Cys Arg Arg Leu
                85                  90                  95
Ala Leu Cys Ser Ala Phe Ala Arg Pro Ser Thr Ala Ser Leu Thr Arg
            100                 105                 110
Asp Ser Met Ser Thr Arg Ser Phe Ser Ile Ala Ser Cys Ser Arg Glu
        115                 120                 125
Thr Ser Leu Thr Ile Ser Leu Asn Ser Ala Cys Ser Arg Val Ala Leu
    130                 135                 140
Ser Ser Ala Ala Thr Arg Glu Ser Lys Ala Ser Leu Ile Arg Ala Ser
145                 150                 155                 160
Ala Ser Leu Arg Thr Cys Cys Ile Val Cys Ser Ser Cys Ser Thr Cys
                165                 170                 175
Cys Ser Ala Arg Ser Pro Gly Leu Asp Ser Phe Leu Ser Ser Gly Val
            180                 185                 190
Gly Leu Leu Thr Lys Leu Ile Asn Gln Ile Leu Gln Ala Cys Asp Phe
        195                 200                 205
Thr Ile Ser Leu Gln Ala Ser Gly Ser Glu Phe Leu Cys Leu Arg Asp
    210                 215                 220
Ala Phe Gly Ser Lys Leu Phe Glu Leu Gly Phe
225                 230                 235
```

<210> 32327
<211> 87
<212> PRT
<213> A.fumigatus

<400> 32327

```
Ser Phe Glu Leu Leu Asp Cys Gln Val Glu Phe Ile Leu Cys Thr Leu
1               5                  10                  15
Ser Pro Leu Leu Arg Gln Phe Glu Val Phe Pro Glu Met Ser Asp Leu
            20                  25                  30
Leu His Gln Ile Gly Tyr Val Arg Ile Ser Phe Arg Val Arg Phe Gly
        35                  40                  45
Val Gln Phe Ser Leu Leu Leu Asn Leu Ser Gly Gln Asp Ala Leu Leu
    50                  55                  60
Phe Glu Glu Leu Leu Asp Leu Ala Met Lys Val Ile Asn Ala Lys Ile
65                  70                  75                  80
Gln Val Phe Glu Met Cys Leu
                85
```

<210> 32328
<211> 286
<212> PRT

<213> A.fumigatus

<400> 32328

```
Thr Ala Lys Ser Ala Glu Thr Pro Arg Thr Leu Glu Ser Asn His Gly
1               5                  10                  15
Ala Glu Asn His Leu Val Glu Ile Asn Ala Arg Leu His His Ile Val
            20                  25                  30
Gly Gln Ser Gly Ser Ser Arg Ser Gln Ala Leu Ser Pro Pro Pro Ala
        35                  40                  45
Ser Ser Gly Asn Gly Leu Gln Ala His Phe Glu Tyr Leu Asn Leu Gly
    50                  55                  60
Ile Asp Asp Leu His Ser Gln Ile Glu Lys Leu Leu Glu Gln Lys Ser
65                  70                  75                  80
Ile Leu Thr Thr Gln Ile Gln Gln Gln Arg Glu Leu Asn Ser Lys Ser
                85                  90                  95
Asp Ala Glu Arg Asp Ala His Ile Ala Asp Leu Val Glu Gln Ile Ala
            100                 105                 110
His Leu Arg Lys Asp Leu Glu Leu Ser Glu Gln Gly Ala Gln Ser Ala
        115                 120                 125
Lys Asp Glu Leu Asp Leu Ala Ile Lys Gln Leu Glu Ala Leu Arg Gln
    130                 135                 140
Glu Leu Asn Asp Leu Gln Gln His Lys Ser Ala Ala Glu Asp His Ala
145                 150                 155                 160
Ser Ala Leu Ala Ser Glu Lys Glu Ala Arg Val His Val Glu Ala Glu
                165                 170                 175
Leu Ser Arg Leu Gln Thr Val Ile Gln Glu Leu Lys Gln Glu Arg Asp
            180                 185                 190
Ala Gln Met Glu Ala Asp Glu Ala Arg Val Arg Ala Glu Arg Glu Val
        195                 200                 205
Ala Arg Leu Glu Ser Gln Leu Glu Gln Leu Arg Ser Glu Ser Val Ser
    210                 215                 220
Gln Thr Glu Glu Leu Thr Ala Ala Arg Leu Lys Ala Asp Ser Glu Val
225                 230                 235                 240
Thr Arg Leu Gln Asn Leu Val Asp Gln Leu Arg Gln Glu Ala Asn Thr
                245                 250                 255
Arg Ala Glu Glu Ala Val Glu Ala Arg Gly Pro Ser Arg Thr Thr Ser
            260                 265                 270
Thr Ala Ala Gly Ala Asp Asp Ala Ala Gly Ser Gln Arg Cys
        275                 280                 285
```

<210> 32329
<211> 324
<212> PRT
<213> A.fumigatus

<400> 32329

```
Arg Leu Ile Val Lys Ser His Ala Cys Arg Ile Trp Leu Ile Asn Phe
1               5                  10                  15
Val Arg Arg Pro Thr Pro Glu Leu Arg Lys Leu Ser Arg Pro Gly Asp
            20                  25                  30
Arg Ala Glu Gln Gln Val Leu Gln Leu Glu Gln Thr Met Gln Gln Val
        35                  40                  45
Arg Asn Asp Ala Asp Ala Arg Ile Lys Glu Ala Phe Asp Ser Arg Val
    50                  55                  60
Ala Ala Glu Glu Ser Ala Thr Arg Leu Gln Ala Glu Leu Ser Glu Met
65                  70                  75                  80
```

```
Val Ser Glu Val Ser Arg Leu Gln Asp Ala Met Glu Lys Leu Arg Val
                85                  90                  95
Asp Met Glu Ser Arg Val Arg Glu Ala Val Glu Gly Arg Ala Asn Ala
            100                 105                 110
Glu Gln Ser Ala Ser Arg Leu Gln Ala Glu Leu Thr Glu Met Glu Gly
        115                 120                 125
Glu Val Val Arg Val Gln Thr Glu Leu Thr Met Ala Lys Ala Glu Leu
    130                 135                 140
Asp Gly Ala Tyr Gly Ser Arg Ala Gln Arg Ala Ala Glu Val Ala Ala
145                 150                 155                 160
Asn Pro Ala Ile Gln Lys Glu Leu Asp Asp Leu Asn Thr Arg Asn Leu
                165                 170                 175
Glu Leu Ala Glu Glu Leu Ala Ala Leu Lys Ala Gly Lys Pro Gly Ser
            180                 185                 190
Ser Asp Leu Gln Gln Arg Val Gln Met Leu Glu Arg Glu Leu Arg Glu
        195                 200                 205
Thr Ile Asp Asp Tyr Glu Val Met Thr Lys Ala Ser Ile Glu Phe Glu
    210                 215                 220
Lys Glu Arg Glu Arg Tyr Glu Gly Met Ile Asp Gly Leu Arg Asp Arg
225                 230                 235                 240
Cys Glu Gln Leu Glu Thr Gln Leu Asn Glu Glu Arg Ile Asn Trp Met
                245                 250                 255
Gly Ile Asn Asn Ala Met Gly Arg Asp Gly Thr Tyr Glu Thr Thr Ser
            260                 265                 270
Thr Met Val Leu Lys Asn Glu Phe Lys Lys Met Met Arg Asp Thr Arg
        275                 280                 285
Ile Glu Asn Met Lys Ile Leu Lys Val Ser Tyr Asn Val Val Ala Phe
    290                 295                 300
Arg Ser His Tyr Ala Lys Leu Ser Tyr Leu Cys Arg Arg Asn Lys Lys
305                 310                 315                 320
Asn Glu Gly Asp
```

<210> 32330
<211> 477
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (279)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32330

```
Leu Thr Ile Leu Arg Leu Gly Thr Ile Asn Ser Leu Pro Pro Asp Leu
1               5                   10                  15
Ile Tyr Lys Ser Ala Thr Gln Thr Ala Leu Glu Leu Ala Pro Asn Leu
            20                  25                  30
Arg Gln Gln Gly Ala Asp Ile Ile Val Ala Val Thr His Gln Arg Glu
        35                  40                  45
Pro Asn Asp Tyr Lys Leu Ala Gln Asn Leu Pro Pro Gly Thr Ile Asp
    50                  55                  60
Leu Ile Leu Gly Gly His Asp His Phe Tyr Gly His Ala Val Ile Asn
65                  70                  75                  80
Asp Thr His Ile Leu Arg Ser Gly Thr Asp Phe Lys Gln Leu Ser Tyr
                85                  90                  95
```

```
Ile Glu Ala Trp Arg Lys Thr Asp Gly Pro Gly Trp Asp Phe Asn Ile
            100                 105                 110
Val Arg Arg Asp Ile Val Arg Thr Ile Pro Glu Asp Pro Ala Thr Val
        115                 120                 125
Ala Leu Val Ser Arg Leu Thr Ser Ser Leu Lys Ala Lys Leu Glu Lys
    130                 135                 140
Pro Val Gly Tyr Thr Val Arg Pro Leu Asp Gly Arg Phe Ser Thr Val
145                 150                 155                 160
Arg Gln Lys Glu Ser Asn Leu Gly Asn Phe Val Cys Asp Leu Met Arg
                165                 170                 175
Phe Tyr Tyr Ala Ala Asp Cys Ala Met Met Ala Gly Gly Thr Ile Arg
            180                 185                 190
Gly Asp Gln Ile Tyr Pro Pro Gly Leu Leu Arg Leu Lys Asp Leu Leu
        195                 200                 205
Asn Cys Phe Pro Phe Gln Glu Pro Val Val Leu Leu Arg Ile Lys Gly
    210                 215                 220
Ser Ala Leu Met Asp Ala Leu Lys Asn Gly Leu Ser Gln Leu Pro Ala
225                 230                 235                 240
Leu Glu Asp Arg Phe Pro Gln Val Ser Asn Ile Ser Leu Val Thr Thr
                245                 250                 255
Arg Pro Asn Pro Leu Ala Arg Ala Ser Leu Gly Gln Gly Ser Arg Thr
            260                 265                 270
Pro Asp Arg Val Arg Thr Xaa Leu Arg Pro Arg Asp Lys Gly Leu His
        275                 280                 285
Gly Pro Arg Lys Gly Arg Val Arg Ile Ala Ser Cys Glu Val Cys Arg
    290                 295                 300
Arg Arg Gly Gly Arg Asp Cys Arg Arg Arg Glu Arg Arg Asp Asp Gln
305                 310                 315                 320
His His Pro Pro Pro Ile Leu Pro Gln Pro Pro Asp Leu Gly Gln Val
                325                 330                 335
Ala Ala Leu Glu Gln Lys Ser Ile Pro Ala Leu Gly Gln Ser Pro Pro
            340                 345                 350
Glu Ser Pro Leu Arg Gly Leu Ala Glu Thr Arg Leu Arg Ala Ser Leu
        355                 360                 365
Pro Arg Leu Arg Lys Gly Ala Gln Pro Ala Phe Arg Val Thr Thr Glu
    370                 375                 380
Ser Gln Thr His Lys Ala Leu Leu Leu Arg Pro Val Arg Gln Tyr Arg
385                 390                 395                 400
Arg Gln Arg Asp Cys Gly Gly Pro Arg Arg Arg Gly Gly Gly His Lys
                405                 410                 415
His Gly Leu Gly Leu Gly Phe Gly Pro Gly Asp Leu Asp Leu Pro Ala
            420                 425                 430
Ala Asn His Gln Leu Arg His Pro Ala Cys Pro Leu Arg Arg Gly Arg
        435                 440                 445
Arg Thr Ser Thr Ala Ala Cys Ala Pro Gly Gly Pro Glu Met Asp Ala
    450                 455                 460
Gly Arg Trp Ile Arg Ala His Asn Thr Gln Tyr Ser Arg
465                 470                 475

<210> 32331
<211> 82
<212> PRT
<213> A.fumigatus

<400> 32331
Pro Cys Pro Arg Ala Gly Ser Ala Glu Pro Val Gly Gly Val Ser Arg
```

```
1               5                   10                  15
Phe Gln Ser Val Ile Asn Tyr Tyr Arg Ser His Pro Arg Phe Thr Gly
            20                  25                  30
Leu Pro Asp Val Leu Thr Phe Phe Ser Gly Asp Ala Phe Asn Pro Ser
        35                  40                  45
Leu Glu Ser Thr Val Thr Lys Gly Arg His Met Val Pro Phe Leu Asn
    50                  55                  60
Lys Ala Gly Thr Asp Val Ala Cys Val Gly Val Cys Glu Arg Cys Thr
65                  70                  75                  80
Lys Thr
```

<210> 32332
<211> 249
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (25)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32332

```
Leu Gln Pro Val Arg Thr Pro Trp Leu Ala Pro His Trp Gly Lys Val
1               5                   10                  15
Ala Gly His Pro Ile Ala Phe Glu Xaa Ser Tyr Val Leu Ala Thr Arg
            20                  25                  30
Gly Tyr Met Ala Arg Gly Lys Asp Gly Phe Ala Ser Leu Leu Val Lys
        35                  40                  45
Ser Ala Glu Gly Glu Val Glu Glu Ile Val Asp Glu Glu Asn Gly Val
    50                  55                  60
Met Ile Ser Thr Ile Leu Arg Gln Tyr Phe Leu Ser Leu Arg Ile Leu
65                  70                  75                  80
Gly Lys Trp Gln Arg Trp Ser Lys Ser Leu Ser Arg His Trp Ala Lys
                85                  90                  95
Val His Gln Asn Leu His Cys Glu Gly Trp Leu Lys Pro Ala Ser Ala
            100                 105                 110
Gln Ala Ser Pro Val Ser Glu Lys Ala Pro Ser Arg Leu Phe Val Ser
        115                 120                 125
Arg Pro Ser Leu Lys Arg Thr Lys His Tyr Tyr Tyr Gly Arg Phe Ala
    130                 135                 140
Asn Ile Glu Gly Asn Gly Thr Ala Gly Val Arg Glu Asp Glu Glu Glu
145                 150                 155                 160
Gly Thr Ser Met Asp Ser Asp Ser Asp Ser Asp Pro Glu Ile Leu Thr
                165                 170                 175
Ser Pro Gln Pro Thr Thr Asn Tyr Val Thr Leu Pro Ala Arg Ser Ala
            180                 185                 190
Ala Glu Glu Glu Arg Arg Leu Arg Leu Ala Arg Arg Ala Val Arg Lys
        195                 200                 205
Trp Met Arg Ala Ala Gly Phe Glu Pro Thr Thr Leu Asn Thr Ala Asp
    210                 215                 220
Asp Ala Gln Gly Phe Thr Pro Ala Trp Thr Pro Gly Ile Ala Pro Arg
225                 230                 235                 240
Leu Glu Gly Arg Ile Val Ile Glu Lys
                245
```

<210> 32333
<211> 287
<212> PRT
<213> A.fumigatus

<400> 32333
Pro Asn Ile Ala Leu Ser Ser Ser Ser Ala Arg Leu Val Leu Ala Ile
1 5 10 15
Glu Phe Lys Gly Pro Phe Pro Thr Thr Gln Leu Ala Lys Ala Ser Thr
20 25 30
Pro Ser Asn Pro Ser Ile Met Ala Pro Ile Leu Thr Ser Ser Pro Thr
35 40 45
Leu Arg Ile Thr Pro Glu Pro Phe Thr Lys Glu Ala Phe Ala Pro Phe
50 55 60
Gly Thr Ala Ile Ser Cys Pro Leu Pro Arg Asp Leu Ser Ser Ala Pro
65 70 75 80
Pro Leu Ser Ser Leu Pro Pro His Asp Pro Ala Pro Val Ile Ala Asn
85 90 95
Gln Ser Ser Ala Leu Lys Tyr Ser Pro Ile Ser Pro Leu Leu Asp His
100 105 110
Tyr Ala Gln Cys Pro Ser Thr Gln Pro Ser Ser Ala Arg Met Ser Met
115 120 125
Phe Ser Cys Phe Pro Arg Lys Leu Arg Thr Ala Lys Ala Thr Gly Gly
130 135 140
Glu Thr Asn Val Phe Asp Val Arg Ile Leu Glu Arg His Pro Phe Thr
145 150 155 160
Thr Gln Thr Phe Thr Pro Leu Asp Leu Ser Asn Gln Pro Arg Ala Gly
165 170 175
Asp Ala Glu Glu Pro Phe Tyr Leu Val Ile Val Ala Pro Thr Leu Lys
180 185 190
Gly Gln Thr Ala Thr Ala Thr Thr Pro Ser Gly Asp Thr Val Ala Ile
195 200 205
Arg Asp Pro Pro Asp Leu Asn Asn Met Arg Ala Phe Val Ala Arg Gly
210 215 220
Gly Gln Ala Val Thr Tyr Gly Val Gly Thr Trp His Ala Pro Met Val
225 230 235 240
Val Leu Gly Pro Arg Arg Val Asp Phe Val Val Val Gln Phe Val Asn
245 250 255
Gly Val Asp Asp Glu Asp Val Gln Glu Ala Ala Phe Gly Glu Gly Ile
260 265 270
Val Val Asp Leu Gly Arg Ser Arg Thr Ser Gly Ala Ser Lys Leu
275 280 285

<210> 32334
<211> 239
<212> PRT
<213> A.fumigatus

<400> 32334
Gly Arg His Pro Thr Val Lys Leu Gly Leu Glu Glu Gln Gly Arg Gln
1 5 10 15
Phe Val Ser Asn Asp Cys Phe Leu Gly Asp Ser Glu Arg Ile Trp Leu
20 25 30
Ile Thr Gly Pro Asn Met Ala Gly Lys Ser Thr Phe Leu Arg Gln Asn
35 40 45
Ala Leu Ile Thr Ile Leu Ala Gln Val Gly Ser Phe Val Pro Ala Glu

```
    50                  55                  60
Tyr Ala Glu Ile Gly Ile Val Asp Gln Ile Phe Ser Arg Ile Gly Ala
65                  70                  75                  80
Ala Asp Asp Leu Phe Arg Asp Gln Ser Thr Phe Met Val Glu Met Leu
                85                  90                  95
Glu Thr Ala Thr Ile Leu Lys Gln Ala Thr Ala Arg Ser Phe Val Ile
            100                 105                 110
Met Asp Glu Val Gly Arg Gly Thr Thr Pro Glu Asp Gly Thr Ala Val
        115                 120                 125
Ser Phe Ala Cys Leu His His Leu His Tyr Arg Asn Lys Cys Arg Thr
    130                 135                 140
Leu Phe Ala Thr His Phe His Ala Leu Ala Asp Met Thr Asp Asp Phe
145                 150                 155                 160
Glu Ala Leu Gly Arg Tyr Cys Thr Asp Val Lys Glu Ser Ala Ser Gly
                165                 170                 175
Ser Phe Ser Phe Val His Arg Leu Arg Lys Gly Val Asn Arg Asn Ser
            180                 185                 190
His Ala Leu Lys Val Ala Gln Leu Ala Gly Leu Pro Lys Glu Thr Leu
        195                 200                 205
Glu Met Ala Ser Arg Val Arg Glu Ser Leu Gly Asn Arg Ala Pro Trp
    210                 215                 220
Ser Ser Gly Gly Ser Asp Ser His Pro Ile Val Ser Ala Thr Val
225                 230                 235
```

<210> 32335
<211> 271
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (235),(246),(271)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32335

```
Arg Lys Lys Glu Glu Phe Ser Phe Gln Tyr Val Pro Leu Arg Leu Val
1               5                   10                  15
Ser His Ser Pro Leu Ser Ser Asn Thr Ile Ala Lys Asp Tyr His Ser
            20                  25                  30
Leu Tyr Arg Trp Ser Thr Asp Asn Arg Ala Ser Phe Trp Asp Phe Cys
        35                  40                  45
Trp Arg Tyr Phe Pro Ile Ile Ser Glu Gly Thr Tyr Arg Thr Val Val
    50                  55                  60
Asp Glu Ser Ala Arg Ile Asp Ser Val Pro Thr Trp Phe Glu Gly Val
65                  70                  75                  80
Arg Leu Asn Phe Ala Glu Asn Met Leu Phe Ser Ala Glu Arg Ser Ser
                85                  90                  95
Ser Gly His Ile Gln Ile Thr Thr Lys Gly Lys Glu Asp Asn Lys Ile
            100                 105                 110
Ala Leu Thr Glu Ile Arg Glu Gly Gly Ala Glu Ala Pro Arg His Ile
        115                 120                 125
Thr Trp Ala Glu Leu Arg Arg Lys Thr Gly Arg Met Val Gln Ala Leu
    130                 135                 140
Lys Ala Ala Gly Val Val Lys Gly Asp Arg Val Ala Ala Val Ala Ser
145                 150                 155                 160
Asn Ser Val Asp Thr Leu Val Val Leu Leu Ala Thr Thr Ala Leu Gly
```

```
                165                 170                 175
Ala Trp Phe Ser Ser Thr Ser Thr Asp Thr Gly Val Lys Gly Ile Leu
            180                 185                 190
Asp Arg Leu Leu Gln Leu Lys Pro Lys Tyr Val Tyr Val Asp Asp Phe
        195                 200                 205
Ala Ile Tyr Asn Gly Lys Arg Ile Asp Leu Arg Thr Lys Ile Gln Asp
    210                 215                 220
Ile Ala Asp Gly Leu Arg Glu Val Ser Glu Xaa Glu Ser Ile Ile Ala
225                 230                 235                 240
Phe Ala Arg Phe Pro Xaa Gln Pro Val Asp Val Asp His Val Pro Lys
                245                 250                 255
Thr His Leu Leu Lys Pro Phe Trp Gln Gly His Leu Cys Gln Xaa
            260                 265                 270
```

<210> 32336
<211> 320
<212> PRT
<213> A.fumigatus

<400> 32336

```
His Ala Tyr Pro Ser Thr Pro Gly Cys Arg Phe Leu Ser Phe Ile Arg
1               5                   10                  15
Thr Asp Ile Gly Thr Ala Tyr Ile Lys Ser Leu Leu Asp Gly Asp Phe
            20                  25                  30
Glu Ala Glu Asn Met Thr Phe Leu Glu Leu Leu Leu Ala Phe Ser Thr
        35                  40                  45
Leu Lys Gln Arg Glu Ile Leu Thr Gln Pro Leu Asn Pro Gln Tyr Ser
    50                  55                  60
Gln Val Leu Thr Leu Ile His Ala Leu Leu Lys Ala Pro Gly Tyr Ala
65                  70                  75                  80
Ala Val Asp Asp Leu Ala Ser Pro Leu Ala Ile Glu Trp Trp Thr Glu
                85                  90                  95
Val Ala Asp Asp Phe Gln Glu Ile Ile Ala Asp Ser Asp Asn His Phe
            100                 105                 110
Asn Phe Glu Pro Ala Lys Gln Asn Leu Ala Arg Ala Ala Leu Asp Cys
        115                 120                 125
Phe Glu Lys Leu Lys Tyr Pro Thr Pro Glu Glu Leu Gln Glu Trp Arg
    130                 135                 140
Asp Asp Asp Arg Ser Glu Phe Ser Ser Phe Arg Arg Asp Ala Cys Asp
145                 150                 155                 160
Phe Ile Leu Ala Val Tyr Pro Ile Leu Gly Val Asp Leu Val Arg Val
                165                 170                 175
Phe Gln Glu Arg Thr Arg Thr Ser Leu Ala Glu Gln Asn Trp Arg Thr
            180                 185                 190
Phe Glu Ala Ala Val Phe Cys Ile Ala Gln Leu Ser Glu Ala Val Asp
        195                 200                 205
Asp Asn Gln His Ala Asp Asp Cys Leu Asn Ala Ile Phe Phe Cys Asp
    210                 215                 220
Glu Phe Ala His Leu Cys Arg Gly Glu Gly Ile Ser Ile Ser Asp Lys
225                 230                 235                 240
Ala Arg Gln Thr Leu Val Asp Met Leu Gly Arg Tyr Gln Ser Tyr Phe
                245                 250                 255
Glu Arg Thr His Ala Leu Leu Pro Leu Ala Arg Ile Pro Leu Phe Ala
            260                 265                 270
Ser Leu Asp Val Ala Ser Cys Ala Pro Ile Gly Phe Gln Val Tyr Phe
        275                 280                 285
```

```
Phe Ile Leu Gln Phe Val Arg Lys Cys Phe Asp Phe Ser Ala Pro Ser
    290                 295                 300
Ile Leu Asp Gln Phe Asp His Phe Val Thr Lys Arg Arg His Gln Ser
305                 310                 315                 320

<210> 32337
<211> 428
<212> PRT
<213> A.fumigatus

<400> 32337
Leu Phe Ser Ser Gln His Pro Gly Ser Ile Arg Ser Phe Arg His Lys
1               5                   10                  15
Ala Thr Pro Pro Val Met Thr Met Glu Lys Val Leu Glu Gly Ile Ala
            20                  25                  30
Ala Ile Ile Gln Ala Leu Pro Thr Asp Glu Gly Lys Ala Gln Val Leu
        35                  40                  45
Glu Arg Ile Leu Asp Tyr Leu Arg Gln Gln Ala Ile Val Ala Arg Asp
    50                  55                  60
Glu Ala Ala Arg Asp Leu Ser Asp Ala Ala Tyr Ser Arg Ser Leu Leu
65                  70                  75                  80
Val Leu Arg Cys Ile Ala Ser Ile Gly Lys Gly Leu Arg Thr Glu Thr
                85                  90                  95
Glu Ile Val Leu Glu Ser Ser Asp Ser Ser Asn Gly Asp Ser His Ser
            100                 105                 110
Leu Thr Phe Trp Asn Ser Gly Arg Gly Ala Asn Ala Gln Ser Leu Ile
        115                 120                 125
Ile Gln Ser Met Gln Leu Leu Met Thr Glu Val Pro Arg Asp Ala Ser
    130                 135                 140
Thr Ile Glu Ala Ala Cys Asp Ile Leu Lys Ala Gly Phe Thr Glu Lys
145                 150                 155                 160
Ala Gly Pro Tyr Val Phe Pro Pro Met Val Thr Val Ser Phe Val Lys
                165                 170                 175
Ser Ile Pro Leu Gly Ser Ala Gly Thr Asp Met Val Met Gly Thr Ala
            180                 185                 190
Ser Ala Phe Leu Ala Ser His Ser Ala His Pro Glu His Ile Arg Glu
        195                 200                 205
Glu Thr Val Ala Leu Ile Val His Val Tyr Glu Ser Ile Cys Gln Met
    210                 215                 220
Gln Glu Met Pro Gly Phe Phe Asp Pro Glu Val Ala Asn Ser Gly Ile
225                 230                 235                 240
Asp Phe Leu Thr Arg Leu Val Pro Lys Tyr Tyr Ser Val Leu Phe Ala
                245                 250                 255
Leu Thr Ser Ala Pro Pro Pro Ser Gly Glu Ser Gly Thr Ser Arg Arg
            260                 265                 270
Ser Val Leu Gln Thr Ile Leu Asp Phe Thr Leu Gln Ser Leu Gln Gly
        275                 280                 285
Pro Glu Pro Leu Pro Leu Arg Ser Ala Ser Gln Phe Trp Val Ser Val
    290                 295                 300
Leu Ser Leu Thr Thr Asp Pro Ser Glu Ala Asp Pro Val Gln Val Val
305                 310                 315                 320
Ile Asn Glu Tyr Leu Pro Ser Leu Cys Arg Val Leu Ile Leu Gln Leu
                325                 330                 335
Ala Gly Arg Cys Ala Arg Ser Asp Ile Glu His Leu Cys Asp Val Leu
            340                 345                 350
Arg Lys Val Ile Phe Arg His Gln Gly Gln Ala Arg Leu His Leu Ser
```

```
        355                 360                 365
Ala Ala Leu Ser Ser Val Asp Ile Asp Val Ser His Glu Gly Gln Gly
    370                 375                 380
His Val Ser Pro Gln Glu Lys Glu Arg Leu Val Ser Ser Leu Ile Ala
385                 390                 395                 400
Ala Arg Gly Leu Arg Ala His Thr Asn Gln Leu Ala Arg Gly Phe Trp
                405                 410                 415
Ile Lys Cys Arg Gly Ala Gly Phe Asp Tyr Ile Gly
            420                 425
```

<210> 32338
<211> 165
<212> PRT
<213> A.fumigatus

<400> 32338

```
Cys Gly Pro Thr Pro Ala Phe Arg Lys Lys Ser Asn Gln Ser Tyr Ser
1               5                   10                  15
Gly Pro Thr Asp Ala Pro Ala Arg Leu Ala Ser Asp Phe Gly Ser Asp
            20                  25                  30
Phe Trp Ala Arg Arg Arg Ile Ser Asp Arg Gly Leu Ser Ser Ser Lys
        35                  40                  45
Glu Thr Pro Val Ser Phe Ser Thr Tyr Ser Arg Ser Ser Ile Asp Ile
    50                  55                  60
Leu Gly Met Gly Thr Ala Ile Leu Thr Pro Leu Val Leu Trp Arg Trp
65                  70                  75                  80
Ile Phe Pro Ser Cys Lys Pro Ile Asn Cys Ala Ser Thr Val Lys Asp
                85                  90                  95
Leu Val Arg Ser Val His Ser Leu Val Leu Val Gly Ser Gly Ser Val
            100                 105                 110
Ile Ser Phe Arg Cys Gly Phe Gln Ser Ile Met Gly Leu Gly Lys Ala
        115                 120                 125
Gly Glu Arg Thr Tyr Ser Ala Tyr Trp Arg Ser Cys Cys His Val Phe
    130                 135                 140
Cys Ala Ala Arg Asp Cys Gln Tyr Ser Leu Leu Pro Gly Ser Leu Ser
145                 150                 155                 160
Phe Asp Arg Ala Ala
                165
```

<210> 32339
<211> 255
<212> PRT
<213> A.fumigatus

<400> 32339

```
Ser Tyr Gly Ala Arg Gly Lys Lys Met Pro Thr Thr Leu Gly Ile Asn
1               5                   10                  15
Ile Ala Thr Gly Thr Ile Phe Ile Ser Pro Glu Gly Asp Gly Asp Met
            20                  25                  30
Gln Gly Trp Thr Ala Asp Arg Leu Thr His Tyr Ser Ile Glu Gly Lys
        35                  40                  45
His Val Phe Leu Asp Leu Val Arg Pro Ser Lys Ser Ile Asp Phe His
    50                  55                  60
Ala Gly Ala Lys Asp Thr Ala Arg Glu Ile Val Ser Ala Leu Gly Glu
65                  70                  75                  80
Ile Tyr Gly Ala Tyr Arg Ala Glu Gly Leu Lys Glu Val Ile Ala Ala
```

```
                85                  90                  95
Gly Ala Gly Gly Gly Gly Lys Lys Lys Gly Gln Ile Leu Tyr Asp Phe
            100                 105                 110
Met Ala Gln Gly Asp Asp Glu Val Thr Val Ala Ala Gly Asp Glu Val
        115                 120                 125
Val Ile Leu Asp Asp Thr Lys Ser Glu Glu Trp Trp Met Val Arg Arg
    130                 135                 140
Met Lys Asn Gly Arg Glu Gly Val Val Pro Ser Ser Tyr Ile Glu Ile
145                 150                 155                 160
Thr Gly Phe Val Ser Ser Gln Pro Thr Gly Val Glu Ser Gly Leu Ser
                165                 170                 175
Thr Val Glu Arg Asn Arg Leu Glu Glu Thr Arg Leu Ala Lys Glu Ala
            180                 185                 190
Met Arg Lys Ser Arg Thr Asp Ser Ile Asp Ser Arg Thr Ser Glu Val
        195                 200                 205
Ser Cys Thr Val Lys Leu Pro Tyr Gln Thr Thr Val Thr Leu Val Arg
    210                 215                 220
Glu Asn Thr Asp Asn Leu Glu Gln His Lys Lys Arg Asp Ser Lys Ser
225                 230                 235                 240
Ala Ser Arg Pro Ser Met Ser Phe Pro Pro Leu Cys Leu Thr Pro
                245                 250                 255

<210> 32340
<211> 168
<212> PRT
<213> A.fumigatus

<400> 32340
Ser Asn Leu Asn Ser Pro Arg Leu Arg Arg Arg Pro Leu His Arg His
1                   5                   10                  15
His Arg Pro Gln His Pro Leu Ala Thr Thr Gln Ala Pro Val Gln Lys
            20                  25                  30
Gln Leu Thr Gly Ala Met Ala Asp Leu Ser Leu Leu Gln Ala Pro Leu
        35                  40                  45
Gln Pro Thr Pro Ala Gln Pro Ala Pro Ala Pro Thr Ser Gln Ala Ser
    50                  55                  60
Gln Ala Ala Ser Ser Pro Ala Ala Ile Gln Pro Gln Pro Thr Ala Val
65                  70                  75                  80
Pro Ala Pro Gln Met Gln Pro Gln Gln Thr Gly Ala Thr Pro Gly Phe
                85                  90                  95
Phe Thr Gln Val Ala Gln Ile Ala Gln Gln Pro Met Gln Thr Gly Pro
            100                 105                 110
Gln Thr Phe Ser Pro Gln Gln Thr Gly Phe Gln Gln Ala Ser Arg Gln
        115                 120                 125
Arg Pro Gln Pro Pro Gln Asn Met Ala Gln Ser Ser Leu Leu Pro Pro
    130                 135                 140
Pro Pro Gln Arg Pro Leu Ser Ala Pro Gln Lys Ser Ser Pro Arg Gly
145                 150                 155                 160
Trp Lys Val Arg Gly Cys Ser Gly
                165

<210> 32341
<211> 323
<212> PRT
<213> A.fumigatus
```

<400> 32341
Ala Pro Ala Ile Ser His Ala Lys Ala Leu Tyr Asp Tyr Thr Arg Gln
1 5 10 15
Thr Asp Glu Glu Val Ser Phe Ser Glu Asp Ala Glu Leu Val Val Tyr
20 25 30
Asp Thr Ser Asp Pro Asp Trp Thr Leu Val Gly Val Asn Gly Asp Phe
35 40 45
Gly Phe Ala Pro Ala Asn Tyr Ile Glu Val Gln Glu Gly Asp Thr Ser
50 55 60
Thr Ala Arg Pro Ser Leu Pro Ser Pro Ala Ala Val Glu Pro Ser Ala
65 70 75 80
Pro Ala Leu Pro Gln Arg Pro Val Glu Val Pro Thr Gln Glu Pro Val
85 90 95
Ala Pro Ala Ser Thr Ser Ser Pro Ile Asp Thr Ile Gln Asn Pro Ala
100 105 110
Ala Ala Ala Ile Ala Asp Ile Ile His Lys Gln His Ala Ser Pro Val
115 120 125
Glu Ser Glu Pro Ser Arg Asp Ile Pro Pro Pro Gln Thr Gln Arg Pro
130 135 140
Ser Gln Arg Pro Glu Asp Ser Tyr Gln Arg Glu Pro Ser Pro Pro Pro
145 150 155 160
Pro Thr Leu Pro Gln Arg Pro Pro Ser Gln Gln Ile Ser Pro Pro Val
165 170 175
Asp Arg Tyr Ser Pro Pro Glu Pro Ser Pro Pro Leu Arg Pro Gln His
180 185 190
Ala Thr Val Arg Glu His Asp Gly Gln Gly His Val Arg Glu Ser Pro
195 200 205
Pro Tyr Asn Arg Ile Gly Gln Ser Thr Pro Arg Ser Pro Ser Gly Tyr
210 215 220
His Leu Tyr Asn Ile Asn Glu Met Val Glu Val Met Gly Gln Glu Gly
225 230 235 240
Arg Arg Cys Gln Arg His Trp Ala Leu Thr Ser Arg Leu Glu Arg Ser
245 250 255
Leu Ser His Gln Lys Gly Thr Ala Thr Cys Lys Asp Gly Leu Gln Ile
260 265 270
Asp Ser Pro Ile Thr Leu Leu Lys Ala Ser Met Ser Ser Ser Ile Trp
275 280 285
Phe Gly Pro Ala Lys Ala Leu Ile Phe Met Leu Glu Pro Arg Thr Pro
290 295 300
Leu Glu Arg Leu Phe Pro Arg Trp Val Lys Phe Met Gly Pro Thr Val
305 310 315 320
Pro Arg Ala

<210> 32342
<211> 306
<212> PRT
<213> A.fumigatus

<400> 32342
Asn Pro His Leu Asn Glu Ile Thr Glu Pro Asp Pro Thr Lys Thr Arg
1 5 10 15
Leu Trp Thr Asp Arg Thr Lys Ser Phe Thr Val Glu Ala Gln Phe Ile
20 25 30
Gly Leu Gln Asp Gly Lys Ile His Leu His Lys Thr Asn Gly Val Lys
35 40 45

```
Ile Ala Val Pro Ile Pro Lys Met Ser Ile Glu Asp Leu Glu Tyr Val
    50                  55                  60
Glu Lys Leu Thr Gly Val Ser Leu Asp Glu Asp Lys Pro Leu Ser Asp
65                  70                  75                  80
Ile Arg Arg Arg Ala Gln Lys Ser Glu Pro Lys Ser Glu Ala Asn Arg
                85                  90                  95
Ala Gly Ala Ser Val Gly Pro Glu Tyr Asp Trp Phe Asp Phe Phe Leu
            100                 105                 110
Lys Ala Gly Val Gly Pro His Gln Cys Glu Arg Tyr Ala Gln Asn Phe
        115                 120                 125
Ile Lys Asp Ser Met Asp Glu Ala Ile Leu Pro Asp Ile Thr Ser Glu
    130                 135                 140
Asn Leu Arg Thr Leu Gly Leu Lys Glu Gly Asp Ile Leu Arg Val Met
145                 150                 155                 160
Arg His Leu Asp Asn Met Phe Gly Arg Thr Gly Ser Lys Ser Lys Leu
                165                 170                 175
Arg Asn Val Ser Phe Gly Gly Glu Glu Val Ile Ser Asn Gly Glu Ala
            180                 185                 190
Gly Ser Pro Gly Gly Leu Phe Ser Gly Pro Gly Gly Val Leu Arg Asn
        195                 200                 205
Asn Thr Arg Lys Gly Arg Pro Ala Pro Ala Val Gln Thr Gly Asp Val
    210                 215                 220
Val Asp Pro Lys Ala Phe Glu Gln Lys Glu Asp Ala Pro Asn Pro Gln
225                 230                 235                 240
Glu Arg Thr Gly Thr Pro Pro Ala Ser Ala Ala Val Glu Lys Pro Val
                245                 250                 255
Gln Arg Gly Phe Asp Asp Asp Ala Trp Glu Val Lys Gln Pro Lys Gln
            260                 265                 270
Pro Ala Ser Ser Ala Pro Pro Ser Ser Ser Pro Pro Pro Ala Thr Ala
        275                 280                 285
Pro Pro Gly Tyr Asn Pro Ser Ser Ser Ala Lys Thr Thr Tyr Trp Gly
    290                 295                 300
Asn Gly
305

<210> 32343
<211> 268
<212> PRT
<213> A.fumigatus

<400> 32343
Phe Leu Ser Ser Val Leu Phe Ala Arg Arg Ile Ala Asp Leu Asp Arg
1               5                   10                  15
Tyr Val Ser Cys Ile Phe Ser Asp Pro Phe Asp Gly Pro Thr Glu Pro
            20                  25                  30
Ser Ala Val Leu His Cys Val Gln Glu Leu Leu Asp Met Gly Cys Tyr
        35                  40                  45
Glu Val Ser Leu Gly Asp Thr Leu Gly Val Gly Asn Pro Gly Lys Val
    50                  55                  60
Arg Ser Leu Leu His Tyr Leu Ala Asp His His Ile Pro Leu Asp Lys
65                  70                  75                  80
Met Ala Gly His Phe His Asp Thr Tyr Gly Gln Ala Val Ala Asn Val
                85                  90                  95
Trp Glu Ala Tyr Asn Cys Gly Val Arg Val Phe Asp Ser Ser Val Gly
            100                 105                 110
Gly Leu Gly Gly Cys Pro Tyr Ala Pro Gly Ala Lys Gly Asn Val Ala
```

```
        115                 120                 125
Thr Glu Asp Leu Val Tyr Met Phe Glu Thr Ala Gly Ile Asn Thr Gly
    130                 135                 140
Val Asp Leu Arg Lys Leu Val Glu Thr Gly Val Trp Ile Ser Arg Arg
145                 150                 155                 160
Leu Ser Lys Thr Asn Ala Ser Arg Ala Gly Thr Ala Leu Ala Ala Lys
                165                 170                 175
Tyr Gly Leu Val Pro Phe Lys Arg Ser Ser Ser Ser Arg Thr Thr Thr
            180                 185                 190
Lys Asn Gln Ile Phe Trp Thr Val Val Lys Asp Pro Asn Gly Ser Leu
        195                 200                 205
Ala Tyr Arg Ser Gly Val Asn Val Lys Pro Ile Ile Asp Arg Leu Lys
    210                 215                 220
Arg Arg Asn Val Phe Thr Ser Ser Gly Ser Ser Lys Thr Pro Arg Pro
225                 230                 235                 240
Thr Pro Pro Ser Ser Asp Ser Ser Ser Gln Glu Arg Glu Gly Ser Phe
                245                 250                 255
Leu Gln Ala Trp Ile Ser Thr Arg Thr Val His Leu
            260                 265
```

Sequence Listing

<210> 32344
<211> 94
<212> PRT
<213> A.fumigatus

<400> 32344

```
Ser Ala Val Pro Ser Ser Pro Gly Val Lys Thr Arg Asp Val Leu Gly
1               5                   10                  15
Asn Glu Ser Ile Arg Gln Leu Gln Gly Thr Pro Asp Leu Arg Leu Pro
            20                  25                  30
Val Leu Val Pro Asn Val Lys Gly Leu Asp Ile Ala Ile Glu His Gly
        35                  40                  45
Ala Lys Glu Val Ala Val Phe Val Ser Ala Thr Glu Gly Phe Ser Lys
    50                  55                  60
Ala Asn Ile Asn Cys Thr Val Gln Gln Gly Leu Glu Arg Ala Lys Ala
65                  70                  75                  80
Val Ala Lys Lys Ala Thr Glu Cys Gly Ile Thr Val Arg Gly
                85                  90
```

<210> 32345
<211> 184
<212> PRT
<213> A.fumigatus

<400> 32345

```
Thr Asp Ser Ile Leu Asp Val Ser Leu Gln Thr Ser Ile Pro Asp Ile
1               5                   10                  15
Tyr Ala Ile Gly Glu Cys Ala Ser Trp Glu Asn Gln Thr Phe Gly Ile
            20                  25                  30
Ile Ala Pro Gly Ile Glu Met Ala Asp Val Leu Ser Phe Asn Leu Thr
        35                  40                  45
Asn Pro Asp Lys Glu Pro Lys Ser Phe Lys Arg Pro Asp Leu Ser Thr
    50                  55                  60
Lys Leu Lys Leu Leu Gly Val Asp Val Ala Ser Phe Gly Asp Phe Phe
65                  70                  75                  80
Ala Asp Arg Asp Gly Pro Lys Phe Leu Pro Gly Gln Arg Pro Ser Ile
```

```
                85                  90                  95
Val Asp Gly Ser Val Gly Asn Ala Asp Gly Asp Lys Glu Pro Ser Val
            100                 105                 110
Lys Ala Leu Thr Tyr Lys Asp Pro Phe Ala Gly Ile Tyr Lys Lys Tyr
        115                 120                 125
Leu Phe Thr Met Asp Gly Lys Tyr Leu Leu Gly Gly Met Met Ile Gly
    130                 135                 140
Asp Thr Lys Asp Tyr Val Lys Leu Asn Gln Met Val Lys Ser Gln Lys
145                 150                 155                 160
Pro Leu Glu Val Pro Pro Ser Gln Phe Ile Leu Gly Ala Gln Lys Glu
                165                 170                 175
Gly Glu Glu Asn Ala Asp Asp Leu
            180
```

<210> 32346
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32346

```
Pro Pro Val Leu Ser Asn Ser Glu Lys Ile Val Lys Gln Asp Ala Glu
1               5                   10                  15
Arg Arg Lys Tyr Asp Ile Val Val Ile Gly Glu Glu Pro His Ile Ala
            20                  25                  30
Tyr Asn Arg Val Gly Leu Ser Ser Phe Phe Glu His Arg Lys Ile Glu
        35                  40                  45
Asp Leu Tyr Leu Asn Pro Lys Glu Trp Val Ser Thr
    50                  55                  60
```

<210> 32347
<211> 104
<212> PRT
<213> A.fumigatus

<400> 32347

```
Asp Phe Val Thr Met Pro Leu Ile Asp Asn Ser Arg Ser Asn Asp Ala
1               5                   10                  15
Val Gln Ser Ser Ile Cys Asn Gly Ile Ser His Thr Thr Ile Ile Glu
            20                  25                  30
Ser Val Arg Asp Pro Asp Tyr Arg His Asn Asp Pro Asn Arg Arg Gln
        35                  40                  45
Lys Ile Val Ile Val Gly Leu Gly Met Val Ala Ile Ser Phe Met Tyr
    50                  55                  60
Val Ala Ser Leu Val Asp Lys Asp Arg Ser Arg Glu Gly Leu Ser Thr
65                  70                  75                  80
Asn His Arg Tyr Tyr Gln Ile Val Arg Lys Ser Ser Asn Lys Met Gln
                85                  90                  95
Arg Asp Ala Ser Thr Thr Leu Leu
            100
```

<210> 32348
<211> 184
<212> PRT
<213> A.fumigatus

<400> 32348

```
Tyr Gly Ser Phe Lys Asp Arg Ser Phe Asp Tyr His Leu Asn Thr Lys
1               5                  10                  15
Val Thr Asp Ile Phe Pro Glu Arg Lys Thr Val Arg Thr Ser Thr Gly
            20                  25                  30
Asp Val Ile Pro Tyr Asp Ile Leu Val Leu Ala Thr Gly Ser Asp Ala
        35                  40                  45
Val Leu Pro Thr His Thr Pro Gly Tyr Asn Ala Lys Gly Ile Phe Val
    50                  55                  60
Tyr Arg Thr Ile Gln Asp Leu Glu Arg Leu Ile Glu Phe Ala Ser Lys
65                  70                  75                  80
His Lys Gly Glu Thr Ala Val Thr Val Gly Gly Gly Leu Leu Gly Leu
                85                  90                  95
Glu Ala Ala Lys Ala Met Thr Asp Leu Glu Asp Phe Gly Arg Val Lys
            100                 105                 110
Leu Ile Asp Arg Asn Lys Trp Val Leu Ala Arg Gln Leu Asp Gly Asp
        115                 120                 125
Ala Gly Thr Leu Val Thr Arg Lys Ile Arg Glu Leu Gly Leu Asp Val
    130                 135                 140
Leu His Glu Lys Arg Val Ala Lys Ile Lys Thr Asp Asp Asp Asn Asn
145                 150                 155                 160
Val Thr Gly Ile Thr Phe Glu Asp Gly Glu Glu Ile Asp Cys Cys Cys
                165                 170                 175
Ile Cys Phe Ala Val Ser Arg Ser
            180

<210> 32349
<211> 99
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (12)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32349
Leu Val Ser Phe Gly Leu Ala Cys Trp Thr Gly Xaa Gly Thr Asp Thr
1               5                  10                  15
Asn Ile Asn Arg Asp Asp Asp Ala Gln Ile Cys Ser Cys His Asn Val
            20                  25                  30
Thr Lys Gly Asp Ile Val Glu Asn Val Lys Ser Gly Thr Cys Lys Thr
        35                  40                  45
Ile Gly Glu Ile Lys Ser Cys Thr Lys Ala Gly Ser Gly Cys Gly Gly
    50                  55                  60
Cys Met Pro Leu Val Gln Ser Ile Phe Asn Lys Ala Met Arg Asp Met
65                  70                  75                  80
Gly Gln Glu Val Ser Asn His Arg Lys Ser Ser Pro Pro Gly Trp Lys
                85                  90                  95
Val Thr Arg


<210> 32350
<211> 66
<212> PRT
<213> A.fumigatus
```

<400> 32350
Ser Leu Ala Ser Leu Glu Pro Arg His Ser Met Pro Ser Gly Glu Leu
1 5 10 15
Pro Arg Gly Leu Arg Ala Gly Trp Ile Lys Lys Met Ala Ser Ala Asn
20 25 30
Gly Glu Ala Ser Ser Met Ala Asn Ile Ala Gly Tyr Lys Ala Val Leu
35 40 45
Glu Ala Ser Asn His Phe Gly Arg Phe Leu Thr Gly Gln Val Thr Ala
50 55 60
Ala Gly
65

<210> 32351
<211> 173
<212> PRT
<213> A.fumigatus

<400> 32351
Val Gly Ala Gln Pro Ser Pro Asp Val Ser Lys Leu Met Leu Thr Ile
1 5 10 15
Ser Gly Tyr Thr Asp Phe Pro Ser Arg Leu Pro Thr Gln Ala Ser Thr
20 25 30
Leu Tyr Ser Asn Asn Ile Ala Lys Phe Leu Leu Ser Met Ala Pro Gln
35 40 45
Glu Lys Ser Phe Gly Ile Asp Leu Ser Asp Glu Val Val Arg Gly Ser
50 55 60
Ile Val Thr Leu Asn Gly Ala Ile Leu Pro Pro Ala Pro Arg Pro Ala
65 70 75 80
Pro Pro Pro Pro Lys Pro Ala Ala Ala Ala Thr Pro Ala Lys Glu Gln
85 90 95
Ala Glu Leu Ser Leu Thr Pro Trp Gln Lys Ala Thr Arg Asp Val Ala
100 105 110
Thr Val Thr Ala Gly Met Gly Thr Ala Leu Ala Leu Gly Lys Ala Thr
115 120 125
Gly Pro Ile Phe Met Ser Asn Met Met Thr Phe Gly Leu Ala Gly Leu
130 135 140
Val Gly Tyr Arg Ala Val Trp Gly Val Ala Pro Ala Leu His Ser Pro
145 150 155 160
Leu Met Ser Val Thr Asn Ala Ile Ser Gly Glu Gln Ala
165 170

<210> 32352
<211> 61
<212> PRT
<213> A.fumigatus

<400> 32352
Ser Thr Tyr Arg Pro Leu Gly Pro Thr Asp Pro Pro Glu Tyr Pro Trp
1 5 10 15
Leu Tyr Ala Ile Pro Ala Val Ile Phe Ser Gly Gly Phe Ile Ala Ala
20 25 30
Ala Ser Thr Gly Met Ala Gly Leu Val Ser Ala Gly Tyr Leu Val Ser
35 40 45
Thr Leu Leu Cys Ile Ser Lys Trp Asn Cys Gly Ile Leu
50 55 60

<210> 32353
<211> 88
<212> PRT
<213> A.fumigatus

<400> 32353
Ser Val Ser Tyr Ala Cys Val Ala Gly Leu Val Tyr Gly His Tyr Met
1 5 10 15
Ile Leu Ala His Asn Phe Thr Gly Ala Leu Ile Gly Arg Arg Ile Thr
20 25 30
Pro Thr Ser Leu Pro Gln Thr Val Ala Ala Leu His Ser Val Val Gly
35 40 45
Val Ala Ala Val Leu Thr Ser Ile Glu Ser Val Met Ala Asp Ile Gly
50 55 60
Asp Ile Ser Thr Leu His Met Val Thr Ala Tyr Leu Gly Val Leu Ile
65 70 75 80
Gly Ile Ser Ser Asp Ser Gly Ala
85

<210> 32354
<211> 88
<212> PRT
<213> A.fumigatus

<400> 32354
Ala Arg Arg Leu Gly Ala Ile Val Arg Gly Phe Asp Thr Arg Ser Ala
1 5 10 15
Ala Arg Glu Gln Val Gln Ser Leu Gly Ala Glu Phe Ile Glu Val Asp
20 25 30
Ile Gln Glu Glu Gly Ala Gly Gln Gly Gly Tyr Ala Lys Glu Met Ser
35 40 45
Lys Glu Phe Tyr Asp Ala Glu Met Lys Leu Phe Met Glu Gln Ala Arg
50 55 60
Asp Val Asp Ile Ile Ile Thr Thr Ala Leu Ile Pro Gly Lys Ala Ala
65 70 75 80
Pro Lys Leu Ile Thr Lys Glu Val
85

<210> 32355
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32355
His Pro His Ala Trp Thr Leu Gly Met Val Gly Ile Gly Gly Leu Phe
1 5 10 15
Ile Met Gly Gly Gly Tyr Thr Pro Ser Thr Ile Pro Glu Ala Leu Gly
20 25 30
Ala Val Ser Val Leu Leu Ala Ser Met Asn Val Ala Gly Gly Phe Val
35 40 45
Ile Thr Lys Arg Met Leu Asp Met Phe Lys Arg Gln Ser Phe Thr Pro
50 55 60
Ile Glu Asp Glu Ala Leu Thr Val Leu
65 70

<210> 32356

<211> 61
<212> PRT
<213> A.fumigatus

<400> 32356
His Tyr Val Ala Val Val Ile Thr Val Leu Asn Ala Tyr Ser Gly Phe
1 5 10 15
Ala Leu Val Ala Glu Gly Phe Met Leu Asn Asn Pro Leu Leu Thr Ser
20 25 30
Val Gly Ser Leu Ile Gly Val Ser Gly Ser Ile Leu Ser Tyr Ile Met
35 40 45
Val Arg Val Phe Met Cys Leu Phe Ala Asp His Ala Asp
50 55 60

<210> 32357
<211> 154
<212> PRT
<213> A.fumigatus

<400> 32357
Arg Pro Gly Thr Ser Ala Pro Ser Asp Val Pro Val Val Pro Tyr Ser
1 5 10 15
Ser Leu Thr Val Gly Val Pro Ser Glu Thr Trp Pro Asn Glu Arg Arg
20 25 30
Val Ala Leu Thr Pro Gln Asn Val Thr Leu Leu Leu Lys Lys Gly Phe
35 40 45
Ser Arg Val Leu Val Glu Arg Gly Ala Gly Glu Gln Ala Gln Ile His
50 55 60
Asp Gln Ala Tyr Glu Gln Val Gly Ala Thr Leu Val Asp Arg Ala Ala
65 70 75 80
Val Trp Ser Glu Ser Asn Ile Val Leu Lys Val Arg Ser Pro Arg Gln
85 90 95
Glu Gly Pro Ile Asp Glu Val Glu Ala Leu Arg Gln Gly Ser Thr Leu
100 105 110
Ile Ser Phe Leu Tyr Pro Ala Gln Asn Lys Leu Leu Val Glu Ala Ile
115 120 125
Ala Ser Arg Gly Val Thr Ala Phe Ala Met Asp Met Ile Pro Arg Ile
130 135 140
Ser Arg Ala Gln Thr Phe Asp Ala Leu Arg
145 150

<210> 32358
<211> 103
<212> PRT
<213> A.fumigatus

<400> 32358
Arg Trp Thr Gly Gly Val Thr Phe Thr Gly Ser Ile Val Ala Phe Leu
1 5 10 15
Lys Leu Ala Gly Arg Met Ser Ser Lys Pro Thr Ile Leu Pro Gly Arg
20 25 30
His Val Ile Asn Ser Thr Leu Leu Gly Thr Asn Met Ala Thr Met Gly
35 40 45
Ala Phe Val Ser Met Gly Pro Ala Ser Pro Leu Ile Ala Ala Thr Cys
50 55 60
Leu Gly Ala Asn Thr Met Leu Ser Phe Leu Lys Gly Tyr Thr Thr Thr

65 70 75 80
Ala Ala Ile Gly Gly Ala Asp Met Arg Met Ser Leu Arg Leu Thr Leu
85 90 95
Glu Lys Val Thr Asn Ile Met
100

<210> 32359
<211> 142
<212> PRT
<213> A.fumigatus

<400> 32359
Pro Thr Arg Pro Ala Ser Pro Lys Val Ile Met Leu Leu Met Asn Met
1 5 10 15
Gly Pro Val Ala Phe Pro Arg Ala Ser Ala Val Pro Ile Pro Ala Val
20 25 30
Thr Val Ala Thr Ser Arg Val Ala Phe Cys Gln Gly Val Ser Asp Asn
35 40 45
Ser Ala Cys Ser Leu Ala Gly Val Ala Ala Ala Ala Gly Phe Gly Gly
50 55 60
Gly Gly Ala Gly Arg Gly Ala Gly Gly Ser Ile Ala Pro Leu Arg Val
65 70 75 80
Thr Ile Glu Pro Arg Thr Thr Ser Ser Asp Arg Ser Ile Pro Lys Asp
85 90 95
Phe Ser Cys Gly Ala Met Asp Arg Arg Asn Leu Ala Ile Leu Phe Glu
100 105 110
Tyr Arg Val Asp Ala Cys Val Gly Arg Arg Asp Gly Lys Ser Val Tyr
115 120 125
Pro Glu Met Val Ser Met Ser Leu Leu Thr Ser Gly Glu Gly
130 135 140

<210> 32360
<211> 77
<212> PRT
<213> A.fumigatus

<400> 32360
Arg Asn Ser Leu Tyr Gln Lys Leu Ile Leu Gly Arg Ile Gln Glu Arg
1 5 10 15
Asn Gln Gly Ala Ser Leu Ser Glu Gly Phe Asp Phe Ile Tyr Gly Ala
20 25 30
Leu Leu Ser Arg Thr Thr Asp Phe Gln Asp Asp Ile Thr Phe Gly Pro
35 40 45
Tyr Ser Ser Ser Val Asp Gln Gly Ser Ser Asp Leu Phe Val Gly Leu
50 55 60
Val Met Asp Leu Gly Leu Phe Ala Gly Thr Ala Leu Asp
65 70 75

<210> 32361
<211> 580
<212> PRT
<213> A.fumigatus

<400> 32361
Lys Leu Ile Gly Leu Leu Ser Ala Val Leu Leu Gln Ile Tyr Ile Ile
1 5 10 15

```
Trp Ser Leu Ser Leu Gln Gly Glu Arg Leu Gln Val Pro Ser Thr Arg
            20                  25                  30
Arg Phe Ala Arg Tyr His Ser Ser Leu Gln Val His Ile Ala Cys Leu
        35                  40                  45
Gln Ser Gly Ser Phe Leu Ser Leu Ile Glu Met Asp Pro Gly His Pro
    50                  55                  60
Pro Thr Asn Gly Asn Gly Cys Phe Gln Asp Ala Ser Val Ser Ser Tyr
65                  70                  75                  80
Gln Ala Glu Arg Thr Ile Asn Ile Ser Ala Leu Ser His Glu Ala Ile
                85                  90                  95
Cys Asp Arg Ile Arg Gln Ser Leu Val Glu Val Ser Ser Gly Leu Val
            100                 105                 110
Ala Asp Lys Ile His Phe Thr Ser Thr Cys Gly Gln His Val Ser Ala
        115                 120                 125
Val Arg Ser Arg Val Glu Asp Ala Leu Ile Asp Ala Leu Ala Ser Pro
    130                 135                 140
Tyr Arg Trp Ala Val Arg Pro Tyr Trp Val Gln Asp His Glu Pro Gly
145                 150                 155                 160
Leu Ile Leu Leu Ser Thr Arg Gln Tyr Asn Thr Tyr Glu Ser Ser Phe
                165                 170                 175
Asn Gly Leu Leu Arg Ala Val Ser Asp Met Glu Asn Leu Val Pro Thr
            180                 185                 190
Ala Asp Thr Leu Tyr Arg Leu Ala Asn Glu Leu Asp Asn Arg Ser Leu
        195                 200                 205
Arg Ser Ile Leu Pro Glu Lys Ala Arg Ile Leu Glu Lys Lys Leu Met
    210                 215                 220
Ser Ile Ser His Ser Asn Ser Leu Leu Leu Ala Thr Leu Ala Ala Glu
225                 230                 235                 240
Ile Leu Thr Tyr Gln Gly Ile Pro Thr Leu Pro Met Lys Ala Ile Met
                245                 250                 255
Gln Leu Gln Gln Arg Ala Gly Ser Ser Val Asp Leu Asn Gly Tyr Pro
            260                 265                 270
Arg His Ala Ala Ala Thr Phe Glu Lys Arg Ile Lys Val Asp Asp Tyr
        275                 280                 285
Asn Phe Phe Glu Leu Val His Pro Ala Tyr Phe Arg Gln Thr Val Ala
    290                 295                 300
Leu Ala Gln Leu Val Thr Lys Phe Ile Lys Asn Pro Cys Pro Arg Ala
305                 310                 315                 320
Val Asp Val Gly Pro Gly Pro Gly Thr Asn Leu Leu Ala Phe Leu Glu
                325                 330                 335
Leu Leu Pro Gln Thr Lys Val Leu Ala Val Glu Pro Ser Asp Ile Ala
            340                 345                 350
Phe Gln Tyr Leu Ile Asp His Phe Lys Gly Gln Ser Asn Ile Thr Cys
        355                 360                 365
Val Gln Lys Asp Phe Leu Cys Val Pro Val Glu Leu Asp Glu Val Asp
    370                 375                 380
Tyr Ile Met Ser Thr Gly Ser Ser His His Phe Tyr Thr Asp Gly Phe
385                 390                 395                 400
Leu Gln Arg Ser Ala Gln Trp Leu Arg Arg Gly Ser Tyr Trp Phe Ile
                405                 410                 415
Ala Asp Glu Met Ile Ser Pro Phe Glu Thr Arg Arg Glu Arg His Leu
            420                 425                 430
Asn Leu Leu Arg His His Leu Ala Tyr Met Val Pro Leu Cys Phe Pro
        435                 440                 445
Trp Pro Ala Gly Asp Val Asp Pro Arg Thr Arg Ala Glu Arg Glu Phe
    450                 455                 460
```

```
Val Asp Asp Phe Asn Asn Thr Val Pro Leu Ala Lys Phe Leu Ala Asp
465                 470                 475                 480
Thr Gly Arg Val Asp Ala Ala Glu Ser Leu Cys Arg Glu Leu Leu Ser
                485                 490                 495
Arg Ala Glu Arg His Gly Phe Thr Thr Lys Val Ser Asp Pro His Leu
            500                 505                 510
Ala Phe Trp Arg Leu Gln Trp Leu Glu Leu Gln Ala Leu Val Ala Gly
        515                 520                 525
Leu Asp Tyr Glu Val Glu Gln Lys Thr Tyr Pro Trp His Phe Ile Lys
    530                 535                 540
Met Ala Glu Gly Ala Gly Leu Lys Cys Val Ala His Gln Arg Val Tyr
545                 550                 555                 560
Gly Thr Val Gly Leu Thr Asp Asp Cys Ala Gly Thr His Val Met Ala
                565                 570                 575
Phe Gln Lys Ala
            580

<210> 32362
<211> 240
<212> PRT
<213> A.fumigatus

<400> 32362
Val Lys Ser Ser Ala His Lys Phe Ile Glu Ala Lys Ala Thr Phe Pro
1                   5                   10                  15
His Val Val Asp Asp Ala Gln Ile Ile Ser Tyr Leu Met Ile Asn Met
            20                  25                  30
Ile Ala Gly Ala Asp Thr Thr Ala Ile Thr Leu Asn Ala Ala Leu Tyr
        35                  40                  45
Phe Ala Leu Lys Asn Pro Ala Val Trp Lys Arg Leu Gln Glu Glu Thr
    50                  55                  60
Ala Ser Leu His Cys Glu Gly Ser Pro Ile Val Pro Phe Lys Thr Ala
65                  70                  75                  80
Gln Asp Leu Pro Tyr Leu Asn Ala Val Ile Arg Glu Ala Met Arg Met
                85                  90                  95
His Pro Gly Val Ala Met Cys Leu Glu Arg Tyr Val Pro Asp Glu Gly
            100                 105                 110
Leu Thr Leu Pro Gly Gly Gln Phe Ile Pro Gly Gly Cys Ile Val Gly
        115                 120                 125
Met Asn Pro Tyr Val Leu Ala Arg Asn Gln Ser Val Trp Gly Glu Asp
    130                 135                 140
Ala Asp Val Phe Arg Pro Glu Arg Trp Leu Arg Asp Pro Thr Arg Glu
145                 150                 155                 160
Thr Glu Glu Ala Tyr Gln Glu Arg Leu Lys Arg Met Asn Ala Ala Asp
                165                 170                 175
Leu Thr Phe Gly Ala Gly Ser Arg Val Cys Ile Gly Arg Asn Leu Gly
            180                 185                 190
Met Met Glu Val Tyr Lys Val Val Ala Met Leu Val Ser Arg Tyr Glu
        195                 200                 205
Ile Glu Leu Val Asp Pro Lys Gly Glu Trp Lys Thr His Asn Ser Phe
    210                 215                 220
Phe Val Arg Gln Glu Gly Ile Glu Val Arg Leu Arg Arg Arg Ser Thr
225                 230                 235                 240

<210> 32363
<211> 200
```

<212> PRT
<213> A.fumigatus

<400> 32363
Val His Arg Ser Lys Ser His Val Pro Pro Cys Gly Arg Arg Arg Ser
1 5 10 15
Asp His Leu Leu Pro Asp Asp Gln His Asp Cys Arg Arg Gly His His
20 25 30
Arg His His Pro Gln Arg Gly Ala Val Leu Cys Ala Gln Glu Pro Arg
35 40 45
Arg Val Glu Thr Thr Ala Gly Gly Asp Cys Ile Ala Pro Leu Arg Gly
50 55 60
Ile Thr His Arg Thr Ile Gln Asn Gly Ala Gly Pro Ala Leu Pro Gln
65 70 75 80
Arg Gly His Pro Arg Gly His Ala His Ala Pro Arg Arg Arg His Val
85 90 95
Ser Gly Ala Leu Arg Ala Gly Arg Arg Pro His Pro Ser Arg Arg Pro
100 105 110
Val His Pro Arg Arg Met His Arg Arg His Glu Pro Leu Arg Ala Arg
115 120 125
Pro Gln Pro Val Gly Leu Gly Arg Gly Arg Arg Arg Leu Pro Ala Arg
130 135 140
Ala Leu Ala Ser Arg Pro His Pro Arg Asp Arg Gly Gly Val Pro Gly
145 150 155 160
Ala Ser Gln Ala Asp Glu Arg Gly Gly Ser Asp Leu Trp Cys Gly Glu
165 170 175
Pro Gly Val His Trp Thr Glu Leu Gly Asp Asp Gly Gly Val Gln Gly
180 185 190
Arg Gly His Ala Gly Leu Glu Val
195 200

<210> 32364
<211> 61
<212> PRT
<213> A.fumigatus

<400> 32364
Gln Ala Ala Gly Leu Leu Val Asp Phe Leu Leu His Val Leu Ala Ile
1 5 10 15
Leu Phe Ala Thr Thr Phe Phe Leu Phe Gly Ala Ser Ser Ser Gln Ser
20 25 30
Pro Ser Asn Ile Ser Arg Ser Ala Asp Thr Pro Leu Tyr Glu Thr Ser
35 40 45
Ser Asp Pro Arg Gln Ser Glu Thr Ser Ser Pro Val Arg
50 55 60

<210> 32365
<211> 90
<212> PRT
<213> A.fumigatus

<400> 32365
Met Asp Pro Asp Tyr Lys Ala Arg Lys Glu Ala Phe Val Ser Gly Leu
1 5 10 15
Ala Gly Gly Ser Ile Leu Glu Ile Asn Ala Val Thr Leu Val Ala Ser
20 25 30

```
Val Arg Val Thr Ile Leu Leu Trp Leu Leu Arg Leu His Cys Phe Ser
        35                  40                  45
Thr Asn Arg Val Ser Leu Arg Ser Ile Arg Tyr Pro Phe Phe Cys Gly
    50                  55                  60
Gln Phe Tyr Asn Leu Ala Tyr Pro Phe Ser Gln Pro Asn Arg Pro Leu
65                  70                  75                  80
Ala Phe Ser Leu Ile Ser Cys Ser Met Tyr
                85                  90
```

<210> 32366
<211> 391
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (283)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32366

```
Leu Ser Cys Ser Gln Pro Leu Phe Phe Ser Ser Ala Pro Leu Leu Leu
1               5                   10                  15
Asn Leu Leu Leu Ile Ser Pro Ala Leu Leu Ile Leu Leu Ser Thr Lys
            20                  25                  30
Arg Pro Arg Thr Pro Val Lys Ala Lys Pro Pro Arg Gln Ser Ala Arg
        35                  40                  45
Ala Gly Lys Asp Asp Ser Lys His Ala Thr Ala Leu Pro Glu Ser Leu
    50                  55                  60
Pro Ile His Pro Phe Leu Thr Thr Tyr Arg Ala Ala Met Met Val Ile
65                  70                  75                  80
Thr Cys Ile Ala Ile Leu Ala Val Asp Phe Arg Ile Phe Pro Arg Arg
                85                  90                  95
Phe Ala Lys Val Glu Asn Trp Gly Thr Ser Leu Met Asp Leu Gly Val
            100                 105                 110
Gly Ser Phe Val Phe Ser Gly Gly Val Val Ser Ala Arg Ser Leu Leu
        115                 120                 125
Lys Ser Arg Thr Asn Gly Ser Lys Arg Leu Pro Leu Ala Lys Arg Leu
    130                 135                 140
Ile Ala Ser Thr Arg His Ser Ile Pro Leu Leu Val Leu Gly Leu Ile
145                 150                 155                 160
Arg Leu Tyr Ser Val Lys Gly Leu Asp Tyr Ala Glu His Val Thr Glu
                165                 170                 175
Tyr Gly Val His Trp Asn Phe Phe Phe Thr Leu Gly Leu Leu Pro Pro
            180                 185                 190
Phe Val Glu Val Phe Asp Ala Leu Ala Thr Ile Ile Pro Ser Tyr Glu
        195                 200                 205
Val Leu Ser Val Gly Ile Ala Val Leu Tyr Gln Val Ala Leu Glu Ser
    210                 215                 220
Thr Asp Leu Lys Ser Tyr Ile Leu Val Ser Pro Arg Gly Pro Ser Leu
225                 230                 235                 240
Leu Ser Lys Asn Arg Glu Gly Val Phe Ser Phe Ser Gly Tyr Leu Ala
                245                 250                 255
Ile Phe Leu Ala Gly Arg Ala Ile Gly Ile Arg Ile Ile Pro Arg Gly
            260                 265                 270
Thr Ser Phe Ser Arg Ser Pro Glu Gln Ala Xaa Arg Arg Val Leu Ile
        275                 280                 285
```

```
Ser Leu Gly Val Gln Ala Leu Val Trp Thr Thr Leu Phe Val Leu Asn
    290                 295                 300
Ser Thr Tyr Ala Met Gly Tyr Gly Ala Asn Ile Pro Val Ser Arg Arg
305                 310                 315                 320
Leu Ala Asn Met Pro Tyr Val Leu Trp Val Ser Ala Phe Asn Thr Ala
                325                 330                 335
Gln Leu Phe Val Phe Cys Leu Ile Glu Thr Leu Cys Phe Leu Ala Val
            340                 345                 350
His Pro Thr Thr Thr Gln Glu Ser Glu Ser Glu Arg Val Asp Phe Ala
        355                 360                 365
Thr Thr Arg Ile Leu Ser Ala Phe Asn Lys Asn Ser Leu Ala Ile Phe
    370                 375                 380
Leu Leu Ala Asn Ser Pro Glu
385                 390
```

<210> 32367
<211> 607
<212> PRT
<213> A.fumigatus

<400> 32367

```
Ser Ser Met Met Asp Asp Ser Ile Ala Ser Ser Asp Pro Thr Met Glu
1               5                   10                  15
Glu His His Ile Val Lys Ala Asp Glu Val Asp Gln Thr Gly Thr Asp
            20                  25                  30
Ile Thr Thr Val Ser Asp Asp Gln Leu Met Glu Glu Val Ala Gln Gly
        35                  40                  45
Leu Arg Gln Glu Gln Ala Ser Lys Ala Thr Ser Ala Gly Pro Asn Glu
    50                  55                  60
Ser Gln Glu Gln Arg Pro Asn Pro Ser Arg Arg Pro Glu Leu Arg Arg
65                  70                  75                  80
Asn Val Ser Ala Pro Pro Pro Pro Leu Gln Pro Pro Pro Pro Ala Pro
                85                  90                  95
Val Gln Gln Leu Pro Asp Arg Pro Pro Asp Ser Leu Ser Leu Ala Gln
            100                 105                 110
Leu Lys Gln Ile Val Gln Asp Met Pro Lys Val Asn Gln Pro Ala Tyr
        115                 120                 125
Ala Phe Glu Tyr Ala Asp Ser Gln Pro Leu Val Glu Glu Ile Glu Glu
    130                 135                 140
Trp Phe Gln Tyr Ser Glu Phe Asp Arg Ile Met Leu Leu Gly Met Lys
145                 150                 155                 160
Ser Thr Phe Glu Arg Lys Trp Ala Ser Phe Cys Glu Asn Gln Ser Ala
                165                 170                 175
Val Ser Asp Arg Leu Pro Trp Leu Asp Ala Pro His Asp Leu Arg Lys
            180                 185                 190
Ser Phe Met Glu Gln Ile Ile Asn Gly Leu Pro Asp Arg Asp Ile Ser
        195                 200                 205
Ser Arg Thr Glu Ala Leu Glu Val Val Cys Tyr Ala Leu Thr Gly Ile
    210                 215                 220
Trp Gly Ser Thr Ala Gly Lys Ala Val Pro Asp Tyr Pro Glu Asp Leu
225                 230                 235                 240
Pro Pro Gln Ala Val Thr Asp Thr Pro Lys Ser Lys Ser Leu Gln Ile
                245                 250                 255
Ile Trp Met Gln Arg Asn Ala Glu Leu Val Asn Glu Cys Ser Gly Leu
            260                 265                 270
Gly Pro Leu Leu Ser Cys Leu Cys Lys Ala Leu Glu Lys Asn Arg Ser
```

```
        275                 280                 285
Ser Tyr Asn Pro Glu Ser Asp Gly Leu Asp Ser His Ser Asp Ser Ala
    290                 295                 300
Asn Val Ala Ala Ser Glu His Glu Val Asn Leu Val Leu Thr Ala Leu
305                 310                 315                 320
Tyr Ile Val Val Glu Ile Gly Arg Arg Gln Glu Lys His Ser Gln Asp
                325                 330                 335
Val Ser Leu Arg Asp Ala Leu Met Gly Leu Lys Pro Asn Leu Ser Val
            340                 345                 350
Phe Leu Val Glu Val Ile Ala Arg Leu Arg Trp Asp Asp Ser Ala Asn
        355                 360                 365
Ile Pro Leu Thr Arg Ile Ile Leu Leu Phe Trp Lys Cys Leu Leu Leu
    370                 375                 380
Phe Phe Gly Gly Ser Asp Ser Leu Lys Lys Ala Lys Glu Glu Leu Glu
385                 390                 395                 400
Pro Arg Met Glu Ala Arg Glu Asn Ser Pro Asn Arg Arg Thr Pro Phe
                405                 410                 415
Leu Thr Ala Ser Pro Leu Asp Tyr His Leu Phe Arg Gln Glu Ile Thr
            420                 425                 430
Ser Lys Tyr Pro Ala Tyr Asn Pro Pro Leu Pro Val Val Pro Leu Glu
        435                 440                 445
Leu Glu Asn Asn Ser Ile Leu Pro Pro Leu Pro Gln His Pro Ser Arg
    450                 455                 460
Thr Ser Ser Ser Thr Gly Leu Phe Ser Gly Val Gly Pro Ser Val Ala
465                 470                 475                 480
Gly Gly Asn Gly Ser Ile Leu His Gln Ser Val His Ile Ala Thr Pro
                485                 490                 495
Ala Pro Ser Pro Pro Pro Ser Pro Ile Gly Pro Gly Gly Lys Ala Gly
            500                 505                 510
Lys Lys Gln Asn Tyr Gln Thr Asn Gln Asn Phe Pro Phe Met Tyr Pro
        515                 520                 525
Pro Leu Asp Asp Ser Ser Asn Asp Ile Gly Gly Lys Gly Ser Ala Glu
    530                 535                 540
Arg Gln Asp Ala Leu Val Gly Lys Arg Trp Glu Gly Ser Asp Val Pro
545                 550                 555                 560
Ala Ser Ile Ile Glu Ala Gly Lys Leu Phe Ser Thr His Val Lys Met
                565                 570                 575
Thr Arg Ala Met Arg Gln Leu Trp Glu Glu Arg Glu Arg Phe Met Lys
            580                 585                 590
Tyr Asp Arg Gly Trp Tyr Leu Asp Glu Asn Ser Pro Ser Ser Asp
        595                 600                 605
```

<210> 32368
<211> 375
<212> PRT
<213> A.fumigatus

<400> 32368

```
Ser Ile Glu Phe Ser Ala Gly Asp Gly Asp Asp Asp Glu Val Gly Asp
1               5                   10                  15
Ser Thr Gly Asn Ala Asn Gly Thr Asn Ser Ala Leu Leu Lys Pro Lys
            20                  25                  30
Asp Gly Ser Ser Gly Asn Ser Leu Glu Gly Leu Leu Leu Ala Arg Asn
        35                  40                  45
Lys Lys Leu Thr Asp Glu Leu Thr Val Leu Arg Val Ser His Arg Asp
    50                  55                  60
```

```
Leu Gln Asp Gln Leu Glu Leu Leu Arg Glu Asp Leu Ser Asn Thr Lys
65                  70                  75                  80
Glu Glu Leu Glu Lys Ser Lys Gln Leu Ser Thr Thr Leu Glu Asn Asp
                85                  90                  95
Leu Leu Arg Val Gln Gln Glu Ala Ala Asn Ala Phe Pro Ser Ser Ala
            100                 105                 110
Met Ser Val Ala Gly Thr Tyr Ser Ser Arg Tyr Pro His Ser Thr Arg
        115                 120                 125
Arg Gly Ala Ala Ser Pro Thr Ser Ser Ile Ile Ser Gly Phe Asp Gln
    130                 135                 140
Ala Ala Thr Ser Ser Asn Ala Met Asp Ala Ile Arg Ala Gly Glu Pro
145                 150                 155                 160
Val Gly Gly Gly Ser Gly Leu Leu Pro Met Ile Gln Ala Gln Arg Asp
                165                 170                 175
Arg Phe Lys Lys Lys Asn Ala Glu Leu Glu Glu Glu Leu Ser Lys Met
            180                 185                 190
Tyr Ser Thr Val Lys Ser Leu Arg Gln Glu Val Ala Ser Leu Gln Lys
        195                 200                 205
Asp Asn Leu Ser Leu Tyr Glu Lys Thr Arg Tyr Val Ser Thr Tyr Ser
    210                 215                 220
Arg Gly Gly Ala Ser Ser Ser Ala Ser Ala Tyr Ala Asn Lys Pro Ser
225                 230                 235                 240
Asn Ser Ser Val His Val Ser Ala Asp Thr Pro Ser Gly Leu Ser Leu
                245                 250                 255
Asp Arg Tyr Gln Ser Ala Tyr Glu Ala Arg Leu Ser Pro Phe Ala Ala
            260                 265                 270
Phe Arg Gly Arg Glu Ser Val Arg Ala Tyr Lys Arg Met Ser Leu Pro
        275                 280                 285
Glu Arg Ile Val Phe Ser Ile Thr Arg Ile Ile Leu Ala Asn Arg Thr
    290                 295                 300
Ser Arg Asn Leu Phe Ala Gly Tyr Cys Phe Ala Leu His Val Leu Leu
305                 310                 315                 320
Phe Leu Ala Leu Tyr Met Met Ser Thr Met Glu Ile Glu Lys His Ser
                325                 330                 335
Ser Ala Ser Leu Gly Ala Ala Ala Ala Ala Ala Met Ala Gly Gly Gly
            340                 345                 350
Gly Ser Gly Ser Ser Ser Gly Gln Leu His Gly Asp Asp Trp Gln Gln
        355                 360                 365
Glu Gly Phe Asn His Ala Ala
    370                 375

<210> 32369
<211> 313
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32369
Xaa Ala Phe Leu Gln Leu Tyr Ser Ser Leu Ser Glu Ala Pro Asp Pro
1               5                   10                  15
Tyr Pro Leu Leu Glu Ala Ser Val Asp Ser Leu Val Leu Ser Glu Gln
            20                  25                  30
```

```
Thr Val Pro Lys Leu Thr Ser Glu Arg Asp Gln Leu Gln Arg Ser Val
        35                  40                  45
Ser Arg Leu Thr Thr Gln Leu Glu Asp Thr Glu Lys Arg Leu Gln Glu
    50                  55                  60
Glu Arg Ala Ala Arg Arg Asn Leu Glu Asp Ser Gln Glu Thr Lys Ile
65                  70                  75                  80
Lys Glu Ile Glu Ser Ser Trp Ser Ala Val Leu Ala Glu Lys Ser Asn
                85                  90                  95
Asn Trp Ala Ala Lys Glu Lys Ser Leu Glu Glu Lys Val Glu Asn Gln
            100                 105                 110
Asp Arg Leu Leu Lys Glu Ile Lys Ala Ser Tyr Glu Val Ser Gln Arg
        115                 120                 125
Leu Gly Gln Glu Asn Asp Gly Ser Asp Ala Ser Gln His Gly Ala Thr
    130                 135                 140
Ala Ala Glu Leu Glu Leu Val Ser Ala Asp Leu Glu Lys Thr Thr Leu
145                 150                 155                 160
Arg Leu Ala Glu Val Glu Ala Arg Asn Glu Gln Leu Arg Leu Glu Leu
                165                 170                 175
Ala Gln Ala Val Ser His Ser Gln Ala Thr Gln Pro Thr Ser Val Glu
            180                 185                 190
Asp Asp Pro Ala Tyr Leu Arg Leu Gln Ser Glu Asn Ser Ser Leu Leu
        195                 200                 205
Arg Lys Leu Asp Ala Ala Arg Phe Asp Arg Glu Ser Glu Arg His Ser
    210                 215                 220
Trp Glu Ser Lys Leu Ser Gln Leu Glu Arg Gln Ser Ser Lys Val Ala
225                 230                 235                 240
Ala Glu Arg Asp Glu Leu Arg Ser Arg Leu Glu Lys Thr Ala Asp Tyr
                245                 250                 255
Glu Asp Ile Arg Arg Glu Leu Glu Met Ile Lys Val Gly Tyr Phe Leu
            260                 265                 270
Trp Gln Asp Ser Arg Thr Cys Leu Leu Ile Leu Arg Ser Leu Leu Asn
        275                 280                 285
Ser Leu Pro Ala Met Gly Thr Met Met Arg Leu Glu Ile Pro Gln Val
    290                 295                 300
Met Leu Thr Val Pro Thr Ala Pro Phe
305                 310

<210> 32370
<211> 79
<212> PRT
<213> A.fumigatus

<400> 32370
Ala Ile Gln His Ser Glu Thr Asn Ser Val Phe Asn Phe Asp Ser Leu
1               5                   10                  15
Leu Val Lys Glu Val Tyr Tyr Pro Lys Tyr Asn Asn Ser Arg Val Phe
            20                  25                  30
Tyr Glu Asp Phe Arg Thr Pro Ser Gly Gly Tyr Gly Gly Leu Phe Ser
        35                  40                  45
Ile Thr Phe His Ser Asp Ala Glu Ala Ile Ala Phe Phe Asp His Leu
    50                  55                  60
Glu Val Leu Lys Gly Pro Ser Leu Gly Thr Asn Phe Thr Leu Arg
65                  70                  75

<210> 32371
<211> 158
```

<212> PRT
<213> A.fumigatus

<400> 32371
Lys Ala Gly Glu Arg Phe Leu Ala Leu Phe Thr Glu Phe Pro Gly Asn
1 5 10 15
Pro Leu Leu Lys Ser Pro Asp Leu Lys Arg Ile Tyr Ala Leu Ala Gln
20 25 30
Lys Tyr Asp Phe Ala Val Val Val Asp Glu Thr Val Gly Asn Phe Leu
35 40 45
Asn Ile Asn Val Leu Pro Tyr Ala Asp Ile Val Val Ser Ser Leu Thr
50 55 60
Lys Val Phe Ser Gly Asp Ser Asn Val Met Gly Gly Ser Ala Val Ile
65 70 75 80
Asn Pro His Gly Arg Tyr Tyr Gln Glu Leu Arg Ala Thr Phe Ser Arg
85 90 95
Asp Tyr Glu Asp Asn Leu Trp Ala Glu Asp Ala Val Phe Leu Glu Arg
100 105 110
Asn Ser Arg Asp Phe Val Ser Arg Ile Glu Lys Ile Asn Lys Thr Thr
115 120 125
Glu Asp Ile Thr Ala Leu Leu Lys Glu Ser Pro Val Gly Glu Gln Ser
130 135 140
Asn Ile Leu Arg Gln Ile Leu Tyr Ser Ile Leu Thr Leu Cys
145 150 155

<210> 32372
<211> 87
<212> PRT
<213> A.fumigatus

<400> 32372
Thr Ser Ser Pro Tyr Thr Leu Leu Ala His Tyr Asn Glu Leu Asp Trp
1 5 10 15
Val Ser Ile Ala Leu Phe Ala Pro Ile Leu Leu Leu Trp Leu Asp Val
20 25 30
Ser Leu Pro Ser Pro Gly Ser Glu Pro Pro Ala His Cys Pro Leu Gln
35 40 45
Ala Ala Ser Phe Gly Val Glu Ser Asn Leu Val Arg Ile Ser Val Gly
50 55 60
Leu Glu Asp Val Ser Asp Leu Arg Asp Gln Val Gln Arg Ala Leu Ala
65 70 75 80
Ala Ala Ala Glu Ala Lys Asp
85

<210> 32373
<211> 486
<212> PRT
<213> A.fumigatus

<400> 32373
Leu His Cys Ser Phe Gln Pro Arg Gly Glu Asp Gln Asp Pro Ile Gly
1 5 10 15
Arg Leu Leu Asn Ala Ala Gln Met Lys His Leu Ala Lys Met Thr Asp
20 25 30
Glu Ala Val Ala Thr Ala Asp Glu Ala Trp Glu Thr Tyr Arg Gly Gln
35 40 45

```
Lys Glu Asp Tyr Arg Asp Arg Tyr Thr Leu His Ser Phe Phe Ser Val
    50                  55                  60
Phe Leu Glu Leu His Gln Thr His Arg Val Gln Asp Val Leu Asp Leu
65                  70                  75                  80
Ala Ala Ser His Pro Gln Glu Phe Gln Phe Thr Glu Arg Ile Gly Leu
                85                  90                  95
Val Glu Phe Leu Ala Ser Thr Leu Thr Trp Thr Arg Arg Leu Val Tyr
            100                 105                 110
Arg Val Leu His His Thr Arg Thr Arg Gly Asp Gly Lys Leu Ile Asp
        115                 120                 125
Leu Val Ala Ser Ala Val Ala Arg Ala Glu Ala Ser Glu Gly Glu Leu
    130                 135                 140
Thr Asp Asp Leu Ala Ala Ala Lys Tyr Phe Ile Ala Ser Leu Met Val
145                 150                 155                 160
Glu Asn Gly Arg Phe Ser Ala Gly Ile Gln Ala Trp Tyr Gln Leu Ala
                165                 170                 175
Ala Leu Asp His Pro Arg Gly Asp Arg Glu Arg Ala Gln Ala Arg Ser
            180                 185                 190
Leu Ser Arg Leu Ala Ala Val Cys Leu Cys Asn Pro Glu Ile Pro Leu
        195                 200                 205
Cys Asp Glu Pro Pro Leu Arg Leu Asp Glu Lys Ala Glu Tyr Ser Asp
    210                 215                 220
Ile Cys Leu Val Ile Ser Ser Trp Leu Arg Tyr His Gly Asp Leu Ala
225                 230                 235                 240
Asn Ala Arg Thr Ala Leu Arg Gly Arg Val Lys Lys Ser Ile Glu Leu
                245                 250                 255
Leu Ser Asp Asp Asp Pro Ser Asn Asp Asp Asp Ala Phe Leu Ser Leu
            260                 265                 270
Phe Gln Thr Leu Leu Thr Ala Ala Asp Ser Asp Glu Asp Leu Ser Gly
        275                 280                 285
Ala Leu Tyr Cys Thr Lys Ala Trp Tyr Lys Asp Cys Leu Arg Glu Ala
    290                 295                 300
Lys Ser Asp His Arg Met Ser Glu Gly Gly Val Ala Glu Ser Leu Asn
305                 310                 315                 320
Gln Val His Leu Val Ala Asp Glu Thr Gln Val Pro Asp Asp Gly Val
                325                 330                 335
Ser Glu Arg Arg Ile Ser Tyr Thr Ile Asp Tyr Phe Ala Glu Cys Ser
            340                 345                 350
Asn Cys Lys Cys Glu Met Lys Ser Ile Cys His Trp Tyr Phe Cys Leu
        355                 360                 365
Cys Cys Pro Phe Met Met Leu Cys Gln Trp Cys Tyr His Glu Ile Gln
    370                 375                 380
Ser Ala Ser Ser Gln Asp Gly Thr Ser His Pro Gln Gly Ile Cys Asp
385                 390                 395                 400
Pro Gln His Glu Phe Tyr Tyr Thr Gly Gly Pro Leu Arg Ala Val Glu
                405                 410                 415
Arg Val Pro Glu Gly Met Thr Val Leu Asp Gly Leu Asp Gly Thr Lys
            420                 425                 430
Arg Thr Ala Trp Ile Glu Glu Trp Lys His Gln Leu Ser Glu Lys Trp
        435                 440                 445
Glu Thr Ala Asp Phe Ala Phe Ala Gly Gly Leu Ser Ala Trp Cys Met
    450                 455                 460
Arg Ile Leu Pro Glu Pro Gln Arg Ser Arg Trp Ala Arg Leu Phe Val
465                 470                 475                 480
Arg Pro Leu Gly Ser Ala
                485
```

<210> 32374
<211> 218
<212> PRT
<213> A.fumigatus

<400> 32374
Phe Gly Arg Ala Arg Thr Val Glu Thr Asn Val Asn Leu Val Val Leu
1 5 10 15
Trp Asn Ala Ser Ser Phe Asn Cys Leu Ala Glu Leu Asp Gly Met Asn
20 25 30
Gly Gly Glu Glu Asn Ser Gly Gly Val Phe Val Ile Gly Ala Thr Asn
35 40 45
Arg Pro Asp Leu Leu Asp Thr Ala Leu Leu Arg Pro Gly Arg Phe Asp
50 55 60
Lys Met Leu Tyr Leu Gly Val Ser Asp Thr His Glu Lys Gln Ala Thr
65 70 75 80
Ile Leu Glu Ala Leu Thr Arg Lys Phe Thr Leu Asp Pro Glu Val Ser
85 90 95
Leu Arg Arg Val Ala Asp Arg Leu Pro Leu Thr Tyr Thr Gly Ala Asp
100 105 110
Leu Tyr Ala Leu Cys Ser Asp Ala Met Leu Lys Ala Ile Thr Arg Lys
115 120 125
Ala Thr Ala Val Asp Glu Lys Ile Lys Gln Leu Pro Gly Gly Pro Val
130 135 140
Ser Thr Ala Tyr Phe Phe Asp His Leu Ala Thr Pro Asp Asp Val Ala
145 150 155 160
Val Met Val Thr Glu Glu Asp Phe Asn Arg Ala Gln Ser Glu Met Val
165 170 175
Pro Ser Val Arg Tyr Val Pro Ser Ser Gln Tyr Pro Glu Lys Ile Ile
180 185 190
Glu Arg His Leu Leu Arg Ser Leu Gln Cys Gln Gly Thr Gly Thr Phe
195 200 205
Arg Ala Asp Ser Ala Ala Ile Arg Ile Arg
210 215

<210> 32375
<211> 647
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (305),(341),(346)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32375
Val Lys Thr Lys Ile Asp Gly Leu Pro Gly Leu Pro Ser Ala Lys Pro
1 5 10 15
Arg Tyr Ser Ile Asn Gln Ser Ser Asp Arg Arg Pro Ser Ile Ser Gln
20 25 30
Arg Pro Pro Gln Arg Leu Thr Pro Ser Val Tyr Thr Ser Pro Leu Leu
35 40 45
Leu Asn Asn Leu Glu Asn Thr Lys Tyr Val Arg Ile Ser Pro Met Ala
50 55 60
Phe Ala Thr Gly Asn Gly Pro Ser Lys Ser Ala Val Leu His Gln Val

```
65                  70                  75                  80
Lys Ala Ser Ser Ala Arg Gln Pro Pro Leu Ala Lys Glu Val Asn Leu
                85                  90                  95
Leu Lys Val Ser Thr Pro Leu Ser Met Asp Arg Val Leu Gln Pro Ala
            100                 105                 110
Leu Phe Ala Gly Leu Lys Gln Tyr Phe Glu Ser Lys Arg Arg Ile Leu
        115                 120                 125
Lys Ser Gly Asp Leu Val Gly Ile Ser Val Asp Glu Arg Leu Gly Arg
    130                 135                 140
Ala Val Phe Ser Gly Ala Ala Ala Thr Asp Ala Ser Thr Pro Asp Glu
145                 150                 155                 160
Asp Leu Thr Ile Arg Phe Asn Gln Ala Asn Glu Ser Ala Gln Gly Val
                165                 170                 175
Lys Lys Val Gly Val Ala Trp Phe Arg Val Ala His Val Val Pro Gly
            180                 185                 190
Lys Ser Glu Asp Gln Asp Glu Asp Asp Gln Trp Gly Gly Val Ala Val
        195                 200                 205
Ile Asp Ser Ala Thr Thr Arg Met Val Gln Ala Gly Ser Asp Ile Ser
    210                 215                 220
Arg Val Pro Gly Ile Leu Glu Asn Gly Trp Glu Tyr Trp Leu Gly Val
225                 230                 235                 240
Lys Ser Val Pro Lys Ser Ile Ser Asn Ala Pro Gly Leu His Gly Leu
                245                 250                 255
Val Thr Glu Pro Pro Gln Pro Phe Ile Pro Pro Leu Gln Lys Arg Ile
            260                 265                 270
Arg Glu Leu Met Ala Val Ala Thr Ser Pro Arg Ala Ile Gln Leu Gly
        275                 280                 285
Met Lys Pro Val Val Ile Leu Leu Arg Ser Gln Gln Arg His Ile Gly
    290                 295                 300
Xaa Thr Thr Val Ala Thr Arg Ala Cys Ala Asp Ile Gly Leu His Thr
305                 310                 315                 320
Phe Pro Ile Asp Ala Tyr Asp Ile Leu Thr Glu Gly Gly Arg Asn Gly
                325                 330                 335
Gly Asp Val Lys Xaa Glu Ala Tyr Leu Xaa Ala Arg Ala Glu Arg Ala
            340                 345                 350
Phe Asp Arg Gly Pro His Cys Thr Ala Leu Leu Ile Lys His Ile Glu
        355                 360                 365
Val Leu Thr Ala Asp Arg Ile Val Ser Ala Met Ala Glu Ile Leu Ala
    370                 375                 380
Asp Ala Arg Val Val Ile Ala Thr Thr Thr Asp Val Glu Gln Ile Pro
385                 390                 395                 400
Glu Gly Ile Arg Ser Met Phe Thr His Glu Phe Glu Met Thr Ala Pro
                405                 410                 415
Glu Glu Lys Glu Arg Glu Gly Ile Leu Arg Asn Ala Val Ala Glu Arg
            420                 425                 430
Ser Ile Arg Leu Ser Pro Asp Val Asp Leu Gly Ser Val Ala Leu Lys
        435                 440                 445
Thr Ala Ala Leu Val Ala Gly Asp Leu Val Asp Val Val Glu Arg Ala
    450                 455                 460
Ser Ala Ile Arg Thr Ala Arg Leu Glu Lys Leu Ala Glu Thr Pro Ser
465                 470                 475                 480
Lys Val Ala Pro Glu Ser Asn Val Ser Val Arg Asp Val Leu Val Ser
                485                 490                 495
Gly Gly Asp Ala Ala Arg Gly Val Thr Lys Ala Asp Phe Asp Ala Ala
            500                 505                 510
Val Glu Ala Ala Arg Lys Asn Phe Ala Asp Ser Ile Gly Ala Pro Lys
```

```
        515                 520                 525
Ile Pro Asn Val Lys Trp Glu Asp Val Gly Gly Leu Thr Asn Val Lys
    530                 535                 540
Asp Ala Leu Val Glu Thr Ile Gln Leu Pro Leu Glu Arg Pro Glu Leu
545                 550                 555                 560
Phe Ala Lys Gly Met Lys Lys Arg Ser Gly Ile Leu Phe Tyr Gly Pro
                565                 570                 575
Pro Gly Thr Gly Lys Thr Leu Leu Ala Lys Ala Ile Ala Thr Glu Phe
            580                 585                 590
Ser Leu Asn Phe Phe Ser Val Lys Gly Pro Glu Leu Leu Asn Met Tyr
        595                 600                 605
Ile Gly Glu Ser Glu Ala Asn Val Arg Arg Val Ser Gln Arg Ala Arg
    610                 615                 620
Asp Ala Arg Thr Cys Val Val Ile Ile Asp Glu Leu Asp Ser Asp Ala
625                 630                 635                 640
Pro Glu Pro Trp Lys Pro Met
                645
```

<210> 32376
<211> 207
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (206)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32376

```
Ile Val Ser Thr Arg Ala Ser Leu Thr Leu Val Ser Pro Pro Thr Ser
1               5                   10                  15
Ser His Leu Thr Phe Gly Ile Leu Gly Ala Pro Met Glu Ser Ala Lys
            20                  25                  30
Phe Phe Leu Ala Ala Ser Thr Ala Ala Ser Lys Ser Ala Leu Val Thr
        35                  40                  45
Pro Arg Ala Ala Ser Pro Pro Glu Thr Ser Thr Ser Leu Thr Leu Thr
    50                  55                  60
Leu Asp Ser Gly Ala Thr Leu Leu Gly Val Ser Ala Ser Phe Ser Arg
65                  70                  75                  80
Arg Ala Val Arg Met Ala Asp Ala Leu Ser Thr Thr Ser Thr Lys Ser
                85                  90                  95
Pro Ala Thr Lys Ala Ala Val Phe Arg Ala Thr Asp Pro Arg Ser Thr
            100                 105                 110
Ser Gly Asp Ser Leu Met Leu Arg Ser Ala Thr Ala Phe Arg Arg Met
        115                 120                 125
Pro Ser Arg Ser Phe Ser Ser Gly Ala Val Ile Ser Asn Ser Trp Val
    130                 135                 140
Asn Met Leu Arg Ile Pro Ser Gly Ile Cys Ser Thr Ser Val Val Val
145                 150                 155                 160
Ala Ile Thr Thr Leu Ala Ser Ala Arg Ile Ser Ala Ile Ala Asp Thr
                165                 170                 175
Ile Leu Ser Ala Val Ser Thr Ser Met Cys Leu Met Arg Ser Ala Val
            180                 185                 190
Gln Cys Gly Pro Arg Ser Asn Ala Arg Ser Ala Leu Ala Xaa Arg
        195                 200                 205
```

<210> 32377
<211> 469
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (455)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32377

```
Leu Ala Gly Pro Val Arg His Ala Pro Thr Met Ser Val Thr Thr Ser
1               5                  10                  15
Leu Trp Trp Pro Glu Asp Arg Ile Gln Ala Thr Leu Cys Pro Glu Tyr
            20                  25                  30
Val Phe Gly His Leu Pro Ser Asp Leu Leu Pro Arg Leu Val Ala Pro
        35                  40                  45
Leu Pro Trp Gly Glu Gly Leu Thr Ser Glu Thr Tyr Leu Asp Trp Ile
    50                  55                  60
Leu His Lys Ala Gly Arg Leu Phe Leu Ile Leu Val Asp Ile Gly Ile
65                  70                  75                  80
Pro Glu Arg Ile Phe Ser Leu Val Asp Glu Ser Phe Asp Asp Ala Asp
                85                  90                  95
Leu Pro Ile Ala Ala His Ser Val Glu Arg Leu Lys Leu Ser Leu Asp
            100                 105                 110
Asp Lys Asn Pro Thr Leu Asp Ala Lys Phe Phe His Ala Gln Trp Arg
        115                 120                 125
Phe Leu Val Arg Gly Ile Lys Gln Gly Asp His Ile Lys Tyr Thr Glu
    130                 135                 140
Asn Glu Gly Val Pro Val Glu Leu Ile Arg Asn Glu Ala Ala Leu Ala
145                 150                 155                 160
Arg Glu Gly Ile Glu Lys Val Val Leu Ala Gly Ala Val Cys Gln Val
                165                 170                 175
Tyr Leu Arg Thr Gln Val Thr Val Gly Gly Ala Pro His Phe Phe Glu
            180                 185                 190
Glu Gln Glu Val Leu Asp Glu Ile Arg Ser Leu Arg Arg Leu Ser His
        195                 200                 205
Asp His Val Phe Ser Ile Tyr Ala Ser Tyr Phe Val Asp Asp Thr Met
    210                 215                 220
Cys Ile Leu Phe Ser Gly Thr Tyr Asp Arg Ser Leu Met Ser Phe Leu
225                 230                 235                 240
Thr Asp Val Pro Gln Pro Phe Lys Arg Leu Pro Lys Asn Arg Arg Arg
                245                 250                 255
Glu Ile Leu Ile Asn Trp Pro His Cys Leu Val Asp Gly Leu Ala Trp
            260                 265                 270
Leu His Ala His Asn Gln Val His Gly Ala Ile Arg Pro Ser Asn Val
        275                 280                 285
Leu Ile Asp Ser Glu Tyr Arg Ile Phe Leu Gly Gln Phe Glu Ala Leu
    290                 295                 300
Asp Thr Leu Leu Pro Pro Ala Lys Ile Asp Asp Val Glu Ser Tyr Gln
305                 310                 315                 320
Tyr Gly Ala Pro Glu Arg Trp Val Arg Ala Val Thr Val Gln Asp Thr
                325                 330                 335
Gly Pro Thr Arg Thr Val Leu Pro Ser Gly Gly Arg Thr Gly Arg Arg
            340                 345                 350
Gln Pro Ser Ser Arg Pro Gly Arg Leu Thr Leu Phe Ser Arg Gly Pro
```

```
        355                 360                 365
Gly Ser Asp Asp Ala Val Asp His Ser Leu Ser Ser Arg Ala Glu Ser
    370                 375                 380
Val Thr Ser His Gly Thr Ala Ile Arg Ile Gly Gly Leu Pro Asp Ser
385                 390                 395                 400
Pro Thr Arg Phe Ser Phe Ala Leu Ser Ser Ser Ser Ser Gly Ser Ser
                405                 410                 415
Gly Ser Ala Arg Lys Arg Val Val Thr Pro Val Lys Arg Arg Ile Leu
            420                 425                 430
Tyr Thr Pro Ser Ile Thr Leu Ser Asn Ser Ser Gly Ser Ser Ser Ser
        435                 440                 445
Phe Ser Phe Thr Val Leu Xaa Pro Gly Ser Thr Pro Arg His Ser Ile
    450                 455                 460
Glu Asn Arg Cys Gly
465
```

<210> 32378
<211> 106
<212> PRT
<213> A.fumigatus

```
<400> 32378
Pro Val Asn Asn Thr Lys Ala Leu Phe Phe Gln Pro Asp Trp Lys Arg
1               5                   10                  15
Leu Ser Gln Glu Glu Thr Cys Arg Asp Ser Asn Phe Ser Pro Ser Asp
            20                  25                  30
Ser His Glu Ala His Ile Arg Leu Leu Asn Ala Ala Gly Ala Ala Thr
        35                  40                  45
Leu Arg Ala Ser Pro Leu Arg Gln His Leu Lys Glu Thr Glu His Leu
    50                  55                  60
Val Ala Asn Asn Lys Asn Ala Pro Pro Gly His His Pro Leu Arg Pro
65                  70                  75                  80
Pro Arg Arg Arg Leu Arg Leu Arg Arg His Arg Ala Arg Pro Arg Arg
                85                  90                  95
Pro Tyr Arg Leu His Leu Tyr Arg Leu Pro
            100                 105
```

<210> 32379
<211> 223
<212> PRT
<213> A.fumigatus

```
<400> 32379
Met Gln Leu Val Gln Pro Leu Cys Ala Pro His Leu Ser Val Asn Ile
1               5                   10                  15
Ser Lys Lys Gln Ser Thr Leu Leu Gln Ile Thr Lys Met Arg Leu Pro
            20                  25                  30
Ala Ile Ile Pro Ser Ala Leu Leu Gly Val Ala Phe Val Phe Ala Val
        35                  40                  45
Ile Glu Leu Gly Leu Gly Gly His Ile Ala Ser Ile Ser Thr Gly Ser
    50                  55                  60
Arg Lys Ile Pro Phe Tyr Asp Pro Ser Ser Ser Trp Gly Tyr Ser Tyr
65                  70                  75                  80
Lys Thr Ile Lys Tyr Ser Val Pro Gly Ile Val Ala Phe Gln Ile Phe
                85                  90                  95
Thr Ser Val Trp Thr Met Leu Val Ser Val Ala Ala Phe Leu Leu Pro
```

```
            100                 105                 110
Trp Phe Leu Arg Val Lys Ala Ala Pro Gly Thr Arg Leu Asn Thr Ile
        115                 120                 125
Ile Thr Gly Ala Leu Gly Gly Ala Tyr Phe Val Thr Met Val Phe Trp
    130                 135                 140
Leu Ala Cys Phe Ala Asp Ile Ala Thr Lys Leu Asp Glu Leu Gly Ala
145                 150                 155                 160
Thr Ser Asp Tyr Tyr Asn Ala Val Ile Ala Phe Ala Val Leu Ser Trp
                165                 170                 175
Leu Val Tyr Phe Leu His Thr His Leu Ile Tyr Pro Pro Pro Pro Ala
            180                 185                 190
Gly Glu Val Asp Val Ala Asn Ala Ser Glu Gln Ala Ala Leu Cys Arg
        195                 200                 205
Ala Leu Arg His Arg Cys Ser Cys His Thr Trp Asp Ser Gly Val
    210                 215                 220
```

<210> 32380
<211> 127
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (18)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32380

```
Met Asp Trp Asn Pro Phe Cys Lys Ala Thr Ser Leu Asn Lys Lys Ala
1               5                   10                  15
Ala Xaa Leu Arg Trp Met Arg Leu Lys Ala Lys Ile Glu Gly Ala Leu
            20                  25                  30
Lys Glu Asp Glu Thr Glu Ser Ala Asp Asp Ile Ala Ala Lys Ser Gly
        35                  40                  45
Asn Gly Asn Gly Asn Gly Asn Gly Asn Ala Glu Val Lys Pro Glu Ala
    50                  55                  60
Ala Lys Ala Pro Gly Lys Ala Met Pro Lys Met Gly Val Phe Lys Pro
65                  70                  75                  80
Arg Arg Ser Lys Asn Ile Asn Thr Ala Glu Ser Glu Ile Ala Pro Pro
                85                  90                  95
Ser Lys Lys Arg Arg Thr Ser Lys Arg Asn Arg Gly Asp His Ala Asp
            100                 105                 110
Ser Asp Asp Ala Asn Lys Gly Ala Ser Glu Ala Ile Ala Glu Lys
        115                 120                 125
```

<210> 32381
<211> 66
<212> PRT
<213> A.fumigatus

<400> 32381

```
Phe Gly Ser Ile Pro Cys Ser Ile Phe Trp Cys Ile Val Trp Leu Asp
1               5                   10                  15
Gly Phe Val Ser Val Thr Gly Asn Tyr Met Asn Thr Gly Arg Gly Val
            20                  25                  30
Leu Asn Leu Glu Asp Gly Lys Ile Gly Ala Leu Leu Arg Arg Leu Ile
        35                  40                  45
```

```
Gln Leu Gln Val Lys Gly Phe Met Glu His Val Ser His His Asp Tyr
    50                  55                  60
Arg Leu
65

<210> 32382
<211> 147
<212> PRT
<213> A.fumigatus

<400> 32382
Thr Pro Arg Arg Val Pro Arg Leu Gly Phe Thr Leu Ser Lys Gln Glu
1               5                   10                  15
Leu Ile Ser Leu Leu Thr Thr Tyr Gly Val Pro Arg Pro Gln Val Gln
            20                  25                  30
Gln Gln Ser Ala Ser Gln Ala Ala Gln His Gln Ala Gln Ser Lys Thr
        35                  40                  45
Thr Pro Ala Thr Asn Pro Gln His Pro Ser Asn Leu Leu Met Pro Leu
    50                  55                  60
Ser Ala Phe Gln Ala Val Thr Ala Val Lys Ile Leu Glu Arg Asp Pro
65                  70                  75                  80
Arg Asp Glu Ile Leu Arg Ala Phe Glu Leu Phe Asp Glu Gly Gly Lys
                85                  90                  95
Gly Tyr Ile Asp Leu Glu Asp Leu Arg Arg Val Ala Arg Glu Leu Gly
            100                 105                 110
Glu Thr Gly Leu Glu Glu Glu Glu Leu Arg Ala Met Ile Glu Glu Phe
        115                 120                 125
Asp Leu Glu Gly Val Gly Gly Val Thr Arg Asp Ala Phe Val Ser Ile
    130                 135                 140
Cys Trp Gln
145

<210> 32383
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32383
His His Arg His Leu Pro Asn Gln Thr Pro Arg Ser Ser Arg Val Ala
1               5                   10                  15
Pro Pro Pro Pro Thr Pro Ser Pro Pro Ile Pro Ser Gln Pro Ala Ala
            20                  25                  30
Asn Pro Gln Asp Gln Cys Ile Pro Ser Arg Pro Arg Gln Thr Ala Gln
        35                  40                  45
Met Pro Gly Gly Ser Arg Pro Ala Asp Pro Ala Pro Glu Ser
    50                  55                  60

<210> 32384
<211> 66
<212> PRT
<213> A.fumigatus

<400> 32384
Arg Thr Arg His Val Ile Leu Ser Gln Pro Ile Leu Val Gln Ser Asp
1               5                   10                  15
Asp Leu Leu Gly Ile Asp Val Val Arg Ser Arg Ile Lys Gly Phe Ala
```

```
            20                  25                  30
Gln Lys Lys Val Thr Leu Pro Pro Gly Arg His Lys Ile Val Ile Leu
        35                  40                  45
Asp Glu Ala Asp Arg Tyr Glu Thr Arg Gly Phe Lys Ile Cys Ala Thr
    50                  55                  60
Gly Arg
65
```

<210> 32385
<211> 80
<212> PRT
<213> A.fumigatus

<400> 32385

```
Leu Phe Arg Val Glu Lys Tyr Arg Pro Ile Phe Leu Asp Asp Ile Val
1               5                  10                  15
Gly Asn Thr Glu Thr Ile Glu Arg Leu Lys Ile Ile Ala Lys Asp Gly
            20                  25                  30
Asn Met Pro His Val Ile Ile Ser Gly Met Pro Gly Ile Gly Lys Thr
        35                  40                  45
Thr Ser Ile Leu Cys Leu Ala Arg Gln Leu Leu Gly Glu Ala Tyr Lys
    50                  55                  60
Glu Ala Val Leu Glu Leu Asn Ala Ser Asp Glu Arg Gly Met Ser Phe
65                  70                  75                  80
```

<210> 32386
<211> 224
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (214)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32386

```
Arg Ile Gln Asn Met Cys Asp Trp Ser Leu Ile Ile Tyr Ser Met Thr
1               5                  10                  15
Pro Gly Ala Gln Gln Ala Leu Arg Arg Thr Met Glu Ile Tyr Ser Ser
            20                  25                  30
Thr Thr Arg Phe Ala Phe Ala Cys Asn Gln Ser Asn Lys Ile Ile Glu
        35                  40                  45
Pro Ile Gln Ser Arg Cys Ala Ile Leu Arg Tyr Ala Arg Leu Thr Asp
    50                  55                  60
Ala Gln Val Val Lys Arg Leu Lys Gln Ile Cys Asp Ala Glu Lys Val
65                  70                  75                  80
Glu His Thr Glu Asp Gly Ile Ala Ala Leu Val Phe Ser Ala Glu Gly
                85                  90                  95
Asp Met Arg Gln Ala Ile Asn Asn Leu Gln Ser Thr Trp Ser Gly Phe
            100                 105                 110
Gly Leu Val Ser Gly Asp Asn Val Phe Arg Val Val Asp Ser Pro His
        115                 120                 125
Pro Ile Lys Val Gln Ala Met Ile Lys Ala Cys Trp Glu Gly Lys Val
    130                 135                 140
Asp Ala Ala Leu Glu Thr Leu Asn Glu Leu Trp Tyr Ala His Asp Ala
145                 150                 155                 160
```

```
Phe Asp Tyr Cys Phe Val Ile Asp Ile Leu Ile Thr Leu Arg Asp Leu
                165                 170                 175
Gly Tyr Ser Ser His Asp Ile Ile Ser Thr Met Phe Arg Val Thr Lys
            180                 185                 190
Thr Ile Pro Thr Leu Ser Glu His Ser Lys Leu Glu Phe Ile Arg Glu
        195                 200                 205
Thr Gly Leu Thr His Xaa Val Ser Ala Ser Ile Glu Lys Tyr Ile Gly
    210                 215                 220
```

<210> 32387
<211> 114
<212> PRT
<213> A.fumigatus

<400> 32387

```
Pro Thr Ser Leu Gln Val Ile Gln Ser Ser Lys Thr Asn Cys Asp Lys
1               5                  10                  15
Leu Ile Phe Ile Thr Leu Arg Asp Phe Cys Arg Glu Leu Asp Met Ser
            20                  25                  30
Leu Ile Arg Gly Ile Met Glu Leu Thr Ser Gln Arg Pro Gly Ile Pro
        35                  40                  45
Gln Leu Ser Gly Pro Leu Ser Lys Gly Leu Leu Pro Gly Gly Ile Ser
    50                  55                  60
Cys Asp Met Glu Phe Arg Ala Gly Lys Val Leu Leu Arg Asn Ala Trp
65                  70                  75                  80
Ala Ser Ala Val Arg Ser Ile His Pro Val Leu Leu Asn Ile Ser Lys
                85                  90                  95
Ile Asp Ile Val Ser Gly Val Ile Gln Asn Arg Leu Ile Ser Arg Leu
            100                 105                 110
Val Met
```

<210> 32388
<211> 89
<212> PRT
<213> A.fumigatus

<400> 32388

```
His Val Cys Gly Leu Met Gln Pro Ser Ser Arg Ala Ile Gln Lys Gln
1               5                  10                  15
Arg Leu Trp Ile Ser Met Met His Tyr Gly Leu Trp Lys Ala Ser Gln
            20                  25                  30
His Trp Thr Pro Arg Asp Cys Phe Ala Arg Pro Ser Tyr Ile Arg Trp
        35                  40                  45
Asp Met His Thr Ala Val Trp Thr Trp Leu Gln Asn Gln Lys Pro Ala
    50                  55                  60
Thr Trp Arg His Trp Gly Ser Thr Asn Asp Pro Leu Gly Ala Thr Thr
65                  70                  75                  80
Leu Arg Thr Leu Gln Phe Cys Thr Ile
                85
```

<210> 32389
<211> 61
<212> PRT
<213> A.fumigatus

<400> 32389
Phe Arg Leu Ser Gly Pro Tyr Ser Leu Ile Thr Lys Gly Tyr Arg Met
1 5 10 15
Glu Lys Arg Phe Leu Pro Leu Asn Ser Arg Pro Leu Arg Phe Phe Cys
20 25 30
Glu His Cys Glu Lys Gln Phe Thr Met Asp Asp Lys Asp Glu Ile Val
35 40 45
Asp Arg Gln Arg Gly Glu Thr Val Thr Arg Asn Phe Leu
50 55 60

<210> 32390
<211> 77
<212> PRT
<213> A.fumigatus

<400> 32390
Leu Leu Pro Ala Pro Asn Asp Val His Ile Ile Gly Ser Lys Thr Ser
1 5 10 15
Gly Met Ala Leu Cys Glu Glu Glu Asn Glu His Tyr Gly Ser Asp Tyr
20 25 30
Val Asp Ser Gln Gly Lys Phe Val Arg Asn Gln Thr Gln Gly Thr Pro
35 40 45
Pro Ser Pro Ser Arg Arg Gln Ser Phe Leu Gln Arg Ile Phe Gly Arg
50 55 60
Thr Val Pro Lys Gly Leu Leu Asp Glu Tyr Asn Ala Gly
65 70 75

<210> 32391
<211> 398
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (398)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32391
Arg Arg Thr Gly Leu Ser Arg Ala Lys Ser Thr Ser Asn Arg Gly Arg
1 5 10 15
Lys Leu Leu Lys Arg Val Asn Thr Val Arg Leu Ser Phe Thr Gln Arg
20 25 30
Gly Ser Lys Asn Glu Ser His Thr Ser Leu Glu Ser Glu Gly Ser Ser
35 40 45
Ser Asp Val Lys Pro Ala Ala Lys Thr Gln Arg Arg Ala Asp Gly Val
50 55 60
Arg Thr Ala Val Ser Glu Ala Glu Tyr Met Asp Leu Leu Arg Asn Cys
65 70 75 80
Gln Asn Ile Phe Ile His Ile Gln His Leu Ser Gly Gly Ala Met Val
85 90 95
His Asp Ala Ser Gly Arg Gln Arg Leu Leu Gln Met Asp Glu Val Ala
100 105 110
Gln Leu Phe Leu Gln Leu Lys Asn Glu Leu Ser Ala Ser Thr Ala Tyr
115 120 125
Ser Lys Ala Leu Ile Thr Arg Met Arg Ala Asp Ala Ala Leu Lys Gln
130 135 140

```
Gly Asn Ser Lys Ala Ala Val Val Asp Phe His Asp Ala Leu Arg Thr
145                 150                 155                 160
Leu Glu Ser Glu Pro Ala Leu Asp Thr Glu Arg Leu Phe Arg Ala Ser
                165                 170                 175
Ile Leu His Ser Met Gly His Ala Tyr Arg Ser Leu Asp Met Ala Ala
            180                 185                 190
Glu Ser Glu Ala Cys Tyr Leu Glu Ala Leu Gly Leu Tyr Lys Arg Ser
        195                 200                 205
Phe Gly Arg Asp His Pro Thr Asn Phe Ala Val Leu His Asp Leu Gly
    210                 215                 220
Ala Leu Cys Glu Lys Asp Gly Tyr Ala Thr Glu Ala Ala Ala Leu Tyr
225                 230                 235                 240
Glu Arg Ser Phe Ala Gly Arg Leu Lys Thr Leu Gly Gln His Ala Pro
                245                 250                 255
Glu Thr Leu Ser Ser Met Gln Arg Leu Ala Ser Leu Lys Val Ser Leu
            260                 265                 270
Gly Asp Leu Glu Ser Ala Leu Leu Leu Leu Glu Arg Ala Val Pro Ala
        275                 280                 285
Leu Asp Thr Val Phe Gly Leu Gln Asn Glu Thr Thr Leu Asn Ala Met
    290                 295                 300
Asn Lys Leu Ser Leu Leu Tyr Gln Lys Leu Gly Leu Val Lys Glu Ser
305                 310                 315                 320
Arg Met Ile Cys Gly Lys Thr Ile Pro His Cys Lys Thr Ile Phe Gly
                325                 330                 335
Val Ala Ser Ala Ile Thr Arg Asp Ala Val Ile Arg Tyr Ile Gln Ser
            340                 345                 350
Ser Asp Asn Phe Asp Leu Pro Pro Glu Ile Leu Asp Ile Leu Asp Gln
        355                 360                 365
Tyr Arg Asn Ser Ser Asp Pro Glu Ala Leu Arg Val Ile His Arg Leu
    370                 375                 380
Gly Arg Ser Tyr Met Asp Ala Gly Leu Asn Arg Asp Ala Xaa
385                 390                 395
```

<210> 32392
<211> 64
<212> PRT
<213> A.fumigatus

<400> 32392

```
Ser His Pro Ser Leu Ala Leu Gly Ala Tyr Ser Gln Trp Leu Leu Ala
1               5                   10                  15
Thr Thr Val Lys Val Leu Gly Gly Ser Tyr Gly Gly His Asn Ala Ser
            20                  25                  30
Ser Arg Ala Pro Ile Arg Pro Lys Arg His Gln Ala Pro Ser Cys Ser
        35                  40                  45
Leu Asp Pro Arg Val Lys His Trp His Tyr Gln Leu Ser Met Thr Cys
    50                  55                  60
```

<210> 32393
<211> 82
<212> PRT
<213> A.fumigatus

<400> 32393

```
Met Arg Cys Leu Arg Ile Leu Leu Ala His Val Pro Arg Asp Thr Leu
1               5                   10                  15
```

```
Leu Glu Asn Val Glu Asp Phe Cys Gln Lys Phe Gly Leu Met Asp His
            20                  25                  30
Ile Asp Ala Phe Arg Lys Gly Ala Leu Ile Ser Gln Asn Pro Ala Gly
        35                  40                  45
Ala Leu Glu Leu Pro Glu Leu Gln Glu Asp Glu Lys Ala Ile Leu Pro
    50                  55                  60
Pro Gly Val Asp Ser Gln Met Val Pro Ala Met Ala Ala Val Leu Tyr
65                  70                  75                  80
Gly Leu
```

<210> 32394
<211> 65
<212> PRT
<213> A.fumigatus

<400> 32394

```
Pro Arg Ser Ala Met Cys Ser Leu Ala Ala Ala Val Gln Gly Met Asp
1               5                   10                  15
Glu Thr Val Asn Asn Gly Ala Gln Ala Ile Tyr Leu Lys Gln Phe Asn
            20                  25                  30
Ile Thr Asn Pro Asp His Pro Glu Asp Ser Arg Phe Ser Gln Ser Met
        35                  40                  45
Gln Arg Tyr Arg Leu Thr Arg Pro Gly Leu Glu Ala Lys Arg Val Arg
    50                  55                  60
Arg
65
```

<210> 32395
<211> 64
<212> PRT
<213> A.fumigatus

<400> 32395

```
Arg Val Tyr Ile Ala Ala Leu Val Ile Gly Lys Val Cys Tyr Ser Arg
1               5                   10                  15
Leu Asn Tyr Asn Ala Ser Tyr Ile Asp Leu Ser Leu Tyr Tyr Asn Leu
            20                  25                  30
Leu Ile Leu Cys Val Ser Thr Phe Pro Pro Pro Leu Phe Phe Phe Phe
        35                  40                  45
Leu Lys Lys Asp Tyr Ile Ile Leu Gly Val Leu Arg Gln Gly Leu Ser
    50                  55                  60
```

<210> 32396
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32396

```
Leu Leu Arg Arg Asp Ile Arg Tyr Val Thr Leu Arg Leu Ser Leu Ile
1               5                   10                  15
Tyr Val Asn Ser Asn Ser Asp Tyr Asn Ser Ala Pro Asp Ser Val Asn
            20                  25                  30
Arg Leu Leu Ser Leu Leu Ser Ile Tyr Phe Thr Gly Trp Ile Arg Ser
        35                  40                  45
Phe Leu Ile Trp Leu Leu Phe Ile Arg Val Trp Glu Val Lys
```

50 55 60

<210> 32397
<211> 705
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (703)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32397

```
Asp Tyr Asp Leu Arg Ala Arg Phe Cys Asp Ser Ile Tyr Ala Met Tyr
1               5                  10                  15
Asp Asn Val Lys Ala Arg Glu Gly Gly Gly Thr Ser Asp Leu Lys Ile
            20                  25                  30
Leu Ile Asp Leu Lys Arg Cys Trp His Gly Lys Cys Ala Ala Tyr Trp
        35                  40                  45
Glu Leu Pro Thr Gly His Ile Ala Pro Gly Thr Ala Ile Val Pro Gly
    50                  55                  60
Gly His Asp Phe Glu Ala Gly Pro Lys Gly Glu Gly Asn Ala Glu Glu
65                  70                  75                  80
His Glu Tyr Asp Ser Thr Thr Pro Glu Val Asn Gln Glu His Gln Thr
                85                  90                  95
Gly Val Gln Gln Ser Leu Pro Ala Phe Gln Gln Ile Gln His Asp Arg
            100                 105                 110
Asn Asn Ser Thr Ala Thr Ala Lys Ser Met Pro Ala Ser Thr Lys Ser
        115                 120                 125
Gly His Ser Val Gln Ala Thr Ser Cys Ser Leu Pro Pro Lys Ser Pro
    130                 135                 140
Lys Arg Leu Ser Val Pro Val Ala Ala Arg Lys Ala Pro His Pro Val
145                 150                 155                 160
Pro Ile Ile Pro Ser Lys Leu Leu Cys Ser Pro Pro Glu Ser Pro Asn
                165                 170                 175
Val Ser Pro Val Ile Ala Lys Arg Leu Pro Phe His Gly His Met His
            180                 185                 190
Lys Arg Ser Gly Ser Phe Ser Asp Ser Val Arg Asp Asp Arg Ala Pro
        195                 200                 205
Leu Cys Leu Leu Lys Leu Glu Gln Gln Ala Phe Ala Ser Gln Glu Ile
    210                 215                 220
Leu Asn Leu Gly Ser Leu Ile Arg Gly Glu Leu Tyr Pro Pro Ala Glu
225                 230                 235                 240
Ser Tyr Met Thr Met Met Ala Pro Pro Ser Pro Pro Leu Pro Ser Ser
                245                 250                 255
Ala Ser Ala Gly Thr Gln Asp Arg Arg Asn Thr Ile Asn Glu Thr Ser
            260                 265                 270
Lys Pro Pro Gly Ser Ser Ser Gly Met Lys Thr Ile Ile Gly Ser Ile
        275                 280                 285
Arg Arg Ala Leu His Thr Arg His Gly Gly Gln Ser Val Ser Pro Arg
    290                 295                 300
Ala Ala Asn Gly Gln Trp Ser Pro Ser Met Arg Gly Lys Thr Ser Ala
305                 310                 315                 320
Leu Pro Asn Asn Val Ala Phe Gly Ser Asp Leu Tyr Arg Asp Arg Lys
                325                 330                 335
Thr Ala Ala Thr Ser Lys Arg Pro Ile Arg Ile Asp Ile Leu Ser Asp
```

```
            340                 345                 350
Glu Ala Leu Gln Glu Tyr Arg Arg Ala Val Gly Glu Val Val Ser Pro
        355                 360                 365
Gln Thr Ala Arg Gly Pro Arg Leu Glu Val Thr Glu Gln Ala Met Glu
    370                 375                 380
Leu Glu Gly Lys Lys Ile Asp Arg Pro Glu Pro Gly Phe Asp Arg Ser
385                 390                 395                 400
Met Ala Lys Ser Gln Ile Thr Met Gly Ser Gln Ser Ile Val Ile Val
                405                 410                 415
Asp Gly Thr Gly Leu Gly Glu Pro Val Met Ser Gly Ala Val Leu Glu
            420                 425                 430
His Ser Met Gly Leu Glu Gln Pro Pro Gly Phe Leu Asn Ala Ala Tyr
        435                 440                 445
Thr Pro Thr Thr Val Lys Ala Ala Ser Leu Arg Arg Leu Ser His Arg
    450                 455                 460
Leu Asp Leu Ala Glu Asp Gln Tyr Ser Leu Pro Ile Tyr Tyr Glu Glu
465                 470                 475                 480
Ala Asp Ser Gly Pro Pro Asn Arg Ile Ser Arg Phe Leu Arg Ser Ser
                485                 490                 495
Arg Ile Ser Asp Pro Arg Arg Ser Phe Ser Thr Glu Arg Phe Ser Val
            500                 505                 510
Ser Trp Lys Arg Thr Ser Pro Ser Leu Arg Leu Arg Lys Tyr Ala Ser
        515                 520                 525
Phe Gln Ser Gly Ile Ser Arg Gln Arg Ser Ala Met Ala Arg Glu Pro
    530                 535                 540
Ser Leu Pro Pro Thr Ala Ala Met Asn Pro Ser Lys Leu Thr Ala Gly
545                 550                 555                 560
Ala Gln Val Gly Pro Thr Leu Arg Arg Arg Pro Gly Gly Asp Leu Arg
                565                 570                 575
Gln Met Gln Thr Val Gly Gly Leu Arg Ser Arg Pro Asp Ser Gly Ser
            580                 585                 590
Phe Thr Ser Gly Ser Thr Tyr Arg Ser Ser Phe Ser Asp Ser Leu Met
        595                 600                 605
Ser Gly Gln His Asp Val Ser Arg Arg Gln Thr Ser Leu Ile Pro Pro
    610                 615                 620
Asn Pro Arg Tyr Glu Leu Ile Gln Thr His Ser Ser Gln Met Leu Arg
625                 630                 635                 640
Arg Ser Phe Glu Ala Ala Ile Ala Gln Phe Ala Gln Ile Pro Asp Asp
                645                 650                 655
Asp Asp Gly Gly Ile Glu Ser Ala Leu Leu Lys Leu Glu Gly Lys Trp
            660                 665                 670
Pro Gly Ser Pro Thr Ser Gly Glu Pro Ala Gly Leu Ser Asn Gly Gly
        675                 680                 685
Ser Cys Arg Glu Pro Gly His Val Gln His Asp Gln Ala Leu Xaa Leu
    690                 695                 700
Val
705
```

<210> 32398
<211> 247
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (31),(33),(34),(63),(66)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32398
Pro Tyr Arg Ile Phe Val Gln Gly Leu Pro Ala Pro Arg Pro Trp Ile
1 5 10 15
Gln Phe Cys Phe Pro Ala Glu Pro Leu Thr Pro Asp Leu Ser Xaa Arg
20 25 30
Xaa Xaa Asn Thr Glu Arg Asn Asn Phe Arg Pro Val Asn Thr His Gln
35 40 45
Val Ser Gly Asp Val Leu Ser Gln Thr Glu Met Asp Arg Gln Xaa Tyr
50 55 60
Asn Xaa Ser Lys Asn Pro Glu Pro Asp His Val Pro Phe Ile Leu Ser
65 70 75 80
Cys Glu Ser Gln Ile Leu Ala Gln Gln Leu Thr Leu Val Glu Met Ala
85 90 95
Ala Leu Ser Glu Val Asp Trp Lys Asp Leu Val Asp Met Asn Trp Ser
100 105 110
Ser Gly Ser Pro Ser Thr Arg Asn Trp Val Gln Phe Leu Thr Glu Glu
115 120 125
Glu Arg Arg Gly Ile Asp Leu Val Val Gly Arg Phe Asn Leu Met Val
130 135 140
Arg Trp Val Val Ser Glu Ile Val Leu Val Arg Thr Leu Glu Glu Arg
145 150 155 160
Ala Ser Thr Ile Val Lys Phe Ile His Thr Ala Ala His Ala Lys Arg
165 170 175
Ile Cys Asn Tyr Ala Thr Met Leu Gln Ile Ala Ile Ala Leu Ser Ser
180 185 190
Thr Asp Cys Ser Arg Leu Gln Lys Thr Trp Ala Leu Val Pro Pro Ser
195 200 205
Glu Arg Arg Leu Leu Lys Asp Met Glu Leu Leu Ile Gln Pro Val Arg
210 215 220
Asn Phe His Asp Leu Arg Met Glu Met Glu Thr Ala Asn Leu Gln Glu
225 230 235 240
Gly Cys Ile Pro Phe Val Gly
245

<210> 32399
<211> 132
<212> PRT
<213> A.fumigatus

<400> 32399
Lys Thr Trp Asn Tyr Ser Ser Ser Leu Cys Gly Thr Ser Met Ile Phe
1 5 10 15
Ala Trp Lys Trp Lys Arg Pro Ile Cys Arg Lys Ala Val Ser Arg Leu
20 25 30
Ser Val Ser Glu Leu Ser Thr Asp Gly Ile Leu Asp Ile Leu Thr Gly
35 40 45
Phe Ser Gly Leu Tyr Val His Asp Leu Thr Tyr Asn Ala Gln Lys Pro
50 55 60
Ala Gln Val Ala Asn Pro Asn Gly Glu Pro Leu Val Asn Phe Glu Arg
65 70 75 80
Tyr Arg Thr Ala Ala Arg Ile Val Lys Ser Leu Leu Arg Leu Ile Asp
85 90 95
Ala Ser Thr Lys Tyr Lys Phe Glu Pro Val Pro Gly Ile Ile Glu Arg
100 105 110

```
Cys Leu Trp Ile Ala Ser Leu Ser Glu Asp Gln Ile Gln Lys Arg Ser
        115                 120                 125
Arg Met Leu Glu
    130
```

<210> 32400
<211> 283
<212> PRT
<213> A.fumigatus

<400> 32400

```
Lys Val Leu Ile Leu Leu Val Arg Leu Arg Ala Ile Ser Pro Ile Met
1               5                  10                  15
Ala Ala Pro Arg Asp Ala Leu Lys Pro Gln Ile Asp Arg Gln Lys Thr
            20                  25                  30
Thr Pro Phe His Leu Lys Leu Phe Tyr Arg Val Asn Ser Phe His Pro
        35                  40                  45
Leu Ser Asp Phe Ala Ile Pro Ser Ser Pro Ser Ser Tyr Ser Gly Pro
    50                  55                  60
Thr Ser Gly Pro Asn Ala Ile Arg Ala Arg Ser Pro Pro Pro Val Arg
65                  70                  75                  80
Leu Pro Pro His Leu Glu Ile Tyr Thr Trp Gln Ser Cys Thr Leu Arg
                85                  90                  95
Glu Leu Thr Gln Leu Leu Thr Ser Ala Leu Pro Ser Leu Leu Pro Asp
            100                 105                 110
Pro Ala Val Gly Thr Arg Ile Cys Phe Arg Leu Ile Tyr Pro Asp Thr
        115                 120                 125
Lys Gly Ala Thr Thr Met Gly Gly Asp Ala Arg Gly Arg Tyr Leu Ser
    130                 135                 140
Lys Asp Val Gly Ser Val Val Val Gly Pro Lys Asp Ser Pro Tyr Arg
145                 150                 155                 160
Gly Glu Asn Asp Glu Glu Asn Gly Gly Ser Ala Ala Thr Gly Pro Arg
                165                 170                 175
Ala Leu Arg Leu Gln Gly Asn Asp Ala Asp Lys Thr Leu Gln Asp Phe
            180                 185                 190
Arg Phe Val Ile Gly Asp Tyr Val Asp Cys Ala Ile Leu Pro Pro Leu
        195                 200                 205
Glu Asp Gly Ser Val Ala Pro Pro Leu Val Thr Gly Arg Gly Ser Val
    210                 215                 220
Ser Gly Pro Val Gly Gly Gly Met Arg Ala Phe Arg Asp Pro Gly Phe
225                 230                 235                 240
Gly Arg Pro Gly Arg Gly Arg Gly Asp Arg Gly Ile Pro Ser Gly Asp
                245                 250                 255
Trp Arg Arg Gly Glu Arg Leu Pro Asp Gly Gly Gly Arg Asn Tyr Gly
            260                 265                 270
Gly Gly Pro Gly Arg Arg Gly Trp Ala Pro Tyr
        275                 280
```

<210> 32401
<211> 256
<212> PRT
<213> A.fumigatus

<400> 32401

```
Arg Asp Phe Gln Ala Glu Asn Glu Asn Glu Glu Lys Val Pro Glu Val
1               5                  10                  15
```

```
Pro Ser Ser Asp Gln Glu Gln Gly Ile Leu Pro Lys Leu Ile Ala Thr
            20                  25                  30
Leu Val Gly Arg Arg Arg Glu Val Lys Lys Leu Met Lys Ser Lys Ser
        35                  40                  45
Ala Thr Pro Glu Gln Leu Ala Leu Trp Asp Thr Lys Gln Leu Ala Phe
    50                  55                  60
Lys Leu Thr Ala Asn Ser Met Tyr Gly Cys Leu Gly Tyr Thr Gln Ser
65                  70                  75                  80
Arg Phe Tyr Ala Arg Pro Leu Ala Met Leu Thr Thr Phe Lys Gly Arg
                85                  90                  95
Glu Ile Leu Arg Ser Thr Lys Glu Leu Ala Glu Ser Lys Gln Leu Arg
            100                 105                 110
Val Ile Tyr Gly Asp Thr Asp Ser Val Met Ile Asn Thr Asn Met Asp
        115                 120                 125
Thr Ile Ser Asp Ala Leu Lys Val Gly Glu Glu Phe Lys Lys Ser Val
    130                 135                 140
Asn Glu Arg Tyr Arg Leu Leu Glu Ile Asp Ile Asp Asn Ile Phe Arg
145                 150                 155                 160
Arg Leu Leu Leu His Ala Lys Lys Lys Tyr Ala Ala Ile Asn Met Thr
                165                 170                 175
Glu Val Asp Gly Lys Phe Val Asp Lys Leu Glu Val Lys Gly Leu Asp
            180                 185                 190
Met Lys Arg Arg Glu Tyr Cys Ala Leu Ser Lys Glu Val Ser Gln Lys
        195                 200                 205
Leu Leu Asn Glu Ile Leu Ser Gly Glu Asp Gln Glu Leu Val Leu Asn
    210                 215                 220
Arg Val His Asp Tyr Leu Arg Asp Leu Ala Asp Lys Met Arg Gly Tyr
225                 230                 235                 240
Gln Ile Pro Val Gln Lys Tyr Val Ile Tyr Thr Val Ser Phe Gln Pro
                245                 250                 255
```

<210> 32402
<211> 339
<212> PRT
<213> A.fumigatus

```
<400> 32402
Cys Ser Leu Gln Lys Leu Ser Lys Arg Pro Glu Glu Tyr Pro Asn Lys
1               5                   10                  15
Glu Thr Met Pro Pro Ala Gln Val Ala Leu Arg Glu Leu Ala Arg Gly
            20                  25                  30
Lys Thr Ile Arg Pro Asn Asp Val Ile Ser Tyr Ile Val Thr Asn Gly
        35                  40                  45
Asp Ser Glu Thr Ser Ser Leu Pro Pro Ala Lys Arg Ser Tyr Thr Val
    50                  55                  60
His Asp Val Met Lys Ser Asp Asn Asn Leu Lys Pro Asp Ile Glu Phe
65                  70                  75                  80
Tyr Leu Leu Lys Gln Ile Phe Pro Pro Ile Glu Arg Leu Cys Ala Pro
                85                  90                  95
Ile Pro Gly Thr Asp Ala Val Arg Leu Ala Glu Cys Leu Gly Leu Asp
            100                 105                 110
Val Arg Lys Tyr Gln Ile Asn Thr Ser Ser Gly Ser Asn Gln Gln Asn
        115                 120                 125
Ala Asp Ile Phe Pro Leu Glu Ser Gln Ile Pro Asp Ser Val Arg Phe
    130                 135                 140
Glu Asn Ala Ala Arg Leu Thr Leu Thr Cys Arg Ser Cys Lys Glu Lys
```

145 150 155 160
Ser Ile Phe Glu Gly Leu Val Ala Ser Thr His Met Cys Thr Ala Asn
165 170 175
Gly Ile Val Cys Pro Asn Gln Ala Cys Gln Lys Pro Phe Thr Val Leu
180 185 190
Thr Ile Ile Ala Gln Leu Glu Ser Gln Ile Arg Ala Gln Thr Ser Lys
195 200 205
Tyr Tyr Glu Gly Trp Leu Val Cys Asp Asp Ser Ala Cys Gly Asn Arg
210 215 220
Thr Arg Gln Met Ser Val Tyr Gly His Arg Cys Leu Gly Pro Arg Gly
225 230 235 240
Arg Ala Glu Gly Cys Leu Gly Arg Met Thr Tyr Glu Tyr Ser Glu Lys
245 250 255
Gln Met Tyr Asn Gln Leu Leu Tyr Phe Ala Gly Leu Trp Asp Val Asp
260 265 270
Lys Ala Lys Val Asn Ala Gln Lys Glu Ala Ser Gly Glu Lys Lys Asp
275 280 285
Ser Ile Ala Ala Leu Val Glu Phe Asn Arg Thr Arg Phe Gly Thr Ile
290 295 300
Lys Asp Val Val Asp Gly Tyr Leu Lys Lys Cys Gly Arg Gln Trp Val
305 310 315 320
Glu Met Asp Ala Leu Phe Pro Ser Ser Thr Thr Gly Arg Gln Gly Thr
325 330 335
Ala Ile Glu

<210> 32403
<211> 171
<212> PRT
<213> A.fumigatus

<400> 32403
Lys Arg Leu Ala Asn Gly Ala Gly Asn Ser Trp Ala Arg Thr Leu Ser
1 5 10 15
Gly Thr Arg Ala Glu Arg Asn Glu Tyr Ile Leu Leu His Glu Phe His
20 25 30
Arg Asn Lys Tyr Ile Cys Pro Asp Lys Tyr Ser Ser Lys Leu Gln Lys
35 40 45
Ala Glu Glu Lys Tyr Gln Asp Gly Asp Asp Asp Asp Ala Gly Asp Lys
50 55 60
Lys Lys Lys Asp Lys Tyr Lys Gly Gly Leu Val Phe Glu Pro Glu Lys
65 70 75 80
Gly Leu Tyr Asp Lys Phe Val Leu Val Met Asp Phe Asn Ser Leu Tyr
85 90 95
Pro Ser Ile Ile Gln Glu Tyr Asn Ile Cys Phe Thr Thr Val Asp Arg
100 105 110
Thr Ala Thr Val Ser Thr Gln Pro Leu Ser Arg Gln Ile Leu Leu Thr
115 120 125
Thr Pro Thr Asn Val Ile Phe Arg Leu Lys Met Arg Thr Lys Lys Lys
130 135 140
Phe Pro Lys Phe Leu Arg Arg Ile Lys Asn Arg Val Phe Phe Leu Asn
145 150 155 160
Ser Leu Pro Arg Leu Leu Val Ala Gly Ala Lys
165 170

<210> 32404

<211> 226
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (61),(65)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32404
Leu Gln Ala Gly Thr Ala Asp Ala Ala Val Asp Glu Val Thr Glu Leu
1 5 10 15
Phe Lys Gly Leu Ser Lys Lys Lys Lys Thr Lys Lys Pro Lys Asp Thr
20 25 30
Glu Ala Gly Glu Gly Asp Asp Ala Ala Ala Thr Ala Asp Gly Glu Phe
35 40 45
Asp Pro Thr Ala Leu Lys Lys Lys Lys Lys Lys Val Xaa Lys Val Asn
50 55 60
Xaa Gly Asp Phe Glu Ala Lys Leu Ala Glu Ala Gly Ile Ser Glu Lys
65 70 75 80
Ala Ala Thr Glu Glu Lys Glu Gly Glu Leu Pro Glu Gly Asp Leu Glu
85 90 95
Ala Gly Thr Gly Ile Trp Ala His Asp Ala Thr Gln Ala Ile Pro Tyr
100 105 110
Ser Leu Leu Val Ser Arg Phe Phe Ser Leu Ile Gln Ser Gln His Pro
115 120 125
Asp Leu Leu Ser Asn Gly Thr Lys Ser Tyr Lys Ile Pro Pro Pro Gln
130 135 140
Cys Leu Arg Glu Gly Asn Arg Arg Thr Ile Phe Ala Lys Ile Ala Asp
145 150 155 160
Ile Cys Lys Arg Met Lys Arg Ser Asp Asp His Val Met Gln Phe Leu
165 170 175
Phe Ala Glu Leu Gly Thr Ser Gly Ser Val Asp Gly Ser Arg Arg Leu
180 185 190
Val Ile Lys Gly Arg Phe Gln Gln Lys Gln Ile Glu Asn Val Leu Arg
195 200 205
Arg Tyr Ile Gly Met Phe Leu Tyr Val Pro Leu Gly Phe Glu Tyr Tyr
210 215 220
Ser Ser
225

<210> 32405
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32405
Gln Val Glu Pro Thr Pro Gln Lys Gln Arg Lys Ser Val Ala Phe Ser
1 5 10 15
Glu Gly Ala Val Ile Met Asp Thr Asn Gly Glu Val Thr Glu Ala Pro
20 25 30
Ala Pro Gln Ile Thr Thr Ala Glu Asn Glu Ala Gly Met Leu Leu Leu
35 40 45
Phe Leu Ser Leu Lys Pro Ala Thr Ala Ala Glu Thr Asp Phe Lys Gln
50 55 60
Ala Gln Gln Thr Pro Gln Ser Thr Lys

65 70

<210> 32406
<211> 151
<212> PRT
<213> A.fumigatus

<400> 32406
Gly Val Arg Leu Arg Pro Ser Gln Val Ser Ala Ile Phe Ser Glu Pro
1 5 10 15
Glu Lys Ser Thr Arg Leu Met Ile Arg Ser Gly Ala Met Ile Ala Met
20 25 30
Ser His Thr Ile Thr Leu Arg Gly Ser Ile Lys Phe Ser Leu Lys Lys
35 40 45
Met Phe Ala Gly Gly Glu Met Ser Leu Ser Thr Tyr Thr Gly Pro Gly
50 55 60
Glu Leu Leu Leu Ala Pro Ala Ala Leu Gly Asp Ile Ile Met Leu Arg
65 70 75 80
Phe Ser Gly Ser Asp Gln Trp Lys Val Gly Lys Asp Ala Phe Leu Ala
85 90 95
Ser Thr Ser Gly Ile Ser Lys Asp Tyr Gln Ala Gln Gly Leu Ser Lys
100 105 110
Gly Val Phe Ser Gly Glu Gly Leu Phe Val Tyr Lys Leu Ser Gly Val
115 120 125
Gly Leu Val Trp Leu Gln Ser Phe Gly Ala Ile Ile Arg Lys Asp Val
130 135 140
Ser Tyr Pro Ser Arg Ser Phe
145 150

<210> 32407
<211> 77
<212> PRT
<213> A.fumigatus

<400> 32407
Gln Ser Thr Ala Gln Ile Ala Asp Gly Glu Ser Tyr Tyr Val Asp Asn
1 5 10 15
Gly His Leu Val Ala Trp Asn Cys Lys Tyr Lys Met Glu Arg Val Ala
20 25 30
Ser Gly Gly Ile Ile Ser Asn Ile Ser Ser Gly Glu Gly Leu Ala Cys
35 40 45
Arg Phe Thr Gly Pro Gly Thr Val Tyr Leu Gln Thr Arg Asn Val Thr
50 55 60
Ala Phe Ala Ala His Ile Gly Ala His Thr Ala Ser Asn
65 70 75

<210> 32408
<211> 173
<212> PRT
<213> A.fumigatus

<400> 32408
Ala Gln Arg Asp Thr Phe Gln Pro Arg Gly Glu Glu Cys Pro Phe Gly
1 5 10 15
Ala Ile His Ile Ile Asn Leu Pro Thr Asn Leu Glu Thr Glu Val Thr
20 25 30

```
His Arg Tyr Ser Ala Asn Ser Phe Lys Leu His Arg Leu Pro Met Pro
        35                  40                  45
Arg Pro Gly Gln Val Leu Gly Leu Val Gly Thr Asn Gly Ile Gly Lys
    50                  55                  60
Ser Thr Ala Leu Lys Ile Leu Ser Gly Lys Leu Lys Pro Asn Leu Gly
65                  70                  75                  80
Arg Tyr Asp Asn Pro Pro Asp Trp Glu Glu Ile Leu Arg Tyr Phe Arg
                85                  90                  95
Gly Ser Glu Leu Gln Ser Thr Tyr Thr Ala Glu Ser Lys Lys Asn Pro
            100                 105                 110
Arg Lys Phe Ser Met Ile Ser Asn Phe His Arg Leu Leu Tyr Gln Gly
        115                 120                 125
Pro Gly Arg Gln Pro Glu Gly Arg Gly Gln Ala Pro Val Cys Leu Pro
    130                 135                 140
Asp Ser Ser Gly Cys Glu Gly Pro Gly Gln Glu Arg Arg Gly Ala His
145                 150                 155                 160
Gln Gly Pro Leu Ser Asp Gly Gln His Gly Thr His Pro
                165                 170
```

<210> 32409
<211> 63
<212> PRT
<213> A.fumigatus

<400> 32409

```
Tyr Leu Thr Phe Ile Asp Tyr Phe Thr Lys Val Leu Glu Asp Asn Leu
1               5                   10                  15
Lys Ala Val Val Lys Pro Gln Tyr Val Tyr Gln Ile Pro Arg Ala Val
            20                  25                  30
Lys Gly Pro Val Lys Asn Val Gly Glu Leu Ile Lys Ala Arg Ser Gln
        35                  40                  45
Met Asp Asn Met Glu Arg Ile Leu Asp Ala Leu Gly Met Ala Ile
    50                  55                  60
```

<210> 32410
<211> 435
<212> PRT
<213> A.fumigatus

<400> 32410

```
Gln Ser Arg Leu Pro Thr Ser Met Leu Asn Ser Val Trp Arg Ala Ala
1               5                   10                  15
Arg Ser Ile Arg Glu Leu Leu Arg Pro Asp Asp Tyr Val Ile Val Val
            20                  25                  30
Glu His Asp Leu Ser Val Leu Asp Tyr Leu Ser Asp Phe Val Cys Val
        35                  40                  45
Leu Tyr Gly Arg Pro Ala Val Tyr Gly Val Val Thr Leu Pro Ala Ser
    50                  55                  60
Val Arg Glu Gly Ile Asn Ile Phe Leu Asp Gly His Ile Pro Thr Glu
65                  70                  75                  80
Asn Leu Arg Phe Arg Glu Glu Ser Leu Thr Phe Arg Leu Ala Glu Ala
                85                  90                  95
Gly Asp Asp Phe Met Val Asp Lys Ala Arg Ala Phe Ser Tyr Pro Ser
            100                 105                 110
Met Glu Lys Thr Leu Gly Asn Phe His Leu Lys Ile Asp Ala Gly Ser
        115                 120                 125
```

```
Phe Thr Asp Ser Glu Ile Ile Val Met Met Gly Glu Asn Gly Thr Gly
    130                 135                 140
Lys Thr Thr Phe Cys Arg Met Leu Ala Gly Ala Glu Lys Pro Asp Gly
145                 150                 155                 160
Asn Val Thr Met Pro Arg Met His Ile Ser Met Lys Pro Gln Lys Ile
                165                 170                 175
Thr Pro Lys Phe Gln Gly Thr Val Arg Gln Leu Phe Phe Lys Arg Ile
            180                 185                 190
Lys Ala Ala Phe Leu Ser Pro Gln Phe Gln Thr Asp Val Tyr Lys Pro
        195                 200                 205
Leu Lys Ile Asp Asp Phe Ile Asp Gln Glu Val Gln Asn Leu Ser Gly
    210                 215                 220
Gly Glu Leu Gln Arg Val Ala Ile Val Leu Ala Leu Gly Met Pro Ala
225                 230                 235                 240
Asp Ile Tyr Val Ile Asp Glu Pro Ser Ala Tyr Leu Asp Ser Glu Gln
                245                 250                 255
Arg Ile Val Ala Ala Arg Val Ile Lys Arg Phe Ile Met His Thr Lys
            260                 265                 270
Lys Thr Ala Phe Ile Val Glu His Asp Phe Ile Met Ala Thr Tyr Leu
        275                 280                 285
Ala Asp Arg Val Ile Val Phe Asp Gly Lys Pro Ser Val Asp Ala His
    290                 295                 300
Ala Asn Ala Pro Glu Ser Leu Val Thr Gly Cys Asn Thr Phe Leu Arg
305                 310                 315                 320
Asn Leu Asp Val Thr Phe Arg Arg Asp Pro Asn Ser Tyr Arg Pro Arg
                325                 330                 335
Ile Asn Lys Tyr Asn Ser Gln Met Asp Gln Glu Gln Lys Leu Ala Gly
            340                 345                 350
Asn Phe Val Ser His Pro Asn Pro Ile Arg Ala His Leu Phe Tyr Val
        355                 360                 365
Ile Leu Ile Cys Phe Thr Ile Val Leu Leu Gly Gly Arg Glu Leu Lys
    370                 375                 380
Arg Ala Ser Gln Ala Asn Ile Ile Ala Thr Ile Thr Gly Thr Met Val
385                 390                 395                 400
Ala Met Leu Thr Arg Gly Asp Val Val Val Asn Gly Lys Pro Phe Val
                405                 410                 415
Tyr Gly Arg Tyr Ser Gly Phe Pro Gly Ser Arg Val Ala Ala Leu Gly
            420                 425                 430
Ala Gly Gly
        435
```

<210> 32411
<211> 152
<212> PRT
<213> A.fumigatus

<400> 32411

```
Ala His Arg Pro Pro Gln Ala Ala Asn Thr Thr Ser Pro Asn Ser Ser
1               5                   10                  15
Pro Gly Ala Ser Leu Tyr Pro Trp Ser Gln Arg Arg Leu Asn Phe Ser
            20                  25                  30
Thr Pro Gln Gly Asn Pro Phe Pro Arg Tyr Gly Ala Ala Ile Asn Ala
        35                  40                  45
Val Ala Ser Lys Glu Gly Asp Ile Tyr Met Met Gly Gly Leu Ile Asp
    50                  55                  60
Gly Ser Thr Val Lys Gly Asp Leu Trp Met Val Glu Ser Ser Gly Gly
```

65 70 75 80
Asn Leu Ser Cys Phe Pro Ile Ala Thr Val Ser Glu Gly Pro Gly Pro
85 90 95
Arg Val Gly His Ala Ser Leu Leu Val Gly Asn Ala Phe Ile Val Phe
100 105 110
Gly Gly Asp Thr Lys Val Asp Glu Asn Asp Thr Leu Asp Asp Thr Leu
115 120 125
Tyr Leu Leu Asn Thr Cys Gly Phe Pro Ala Leu Phe Gly His Leu Gln
130 135 140
Arg Thr Phe Thr Leu Leu Thr Leu
145 150

<210> 32412
<211> 98
<212> PRT
<213> A.fumigatus

<400> 32412
Phe Pro Ser Ala Ser Arg Gln Trp Ser Arg Ala Ile Pro Pro Asn Pro
1 5 10 15
Arg Pro Ala Gly Arg Tyr Gly His Thr Ile Asn Ile Leu Gly Ser Lys
20 25 30
Leu Tyr Val Phe Gly Gly Gln Val Glu Gly Tyr Phe Phe Asn Asp Leu
35 40 45
Val Ala Phe Asp Leu Asn Gln Leu Gln Asn Pro Thr Asn Lys Trp Glu
50 55 60
Phe Leu Ile His Asn Ser His Glu Gly Gly Pro Ser Pro Gly Gln Ile
65 70 75 80
Pro Pro Ala Arg Thr Asn His Thr Met Val Ser Phe Asn Asp Lys Leu
85 90 95
Tyr Leu

<210> 32413
<211> 331
<212> PRT
<213> A.fumigatus

<400> 32413
Arg Phe Gly Gly Thr Asn Gly Leu Gln Trp Phe Asn Asp Val Trp Ser
1 5 10 15
Tyr Asp Pro Arg Ala Asn Gln Trp Ser Gln Leu Asp Cys Val Gly Phe
20 25 30
Ile Pro Thr Pro Arg Glu Gly His Ala Ala Ala Leu Val Asn Asp Val
35 40 45
Met Tyr Ile Phe Gly Gly Arg Thr Asp Glu Gly Ile Asp Leu Gly Asp
50 55 60
Leu Ala Ala Phe Arg Ile Thr Thr Arg Arg Trp Tyr Ser Phe Gln Asn
65 70 75 80
Met Gly Pro Ala Pro Ser Pro Arg Ser Gly His Ser Met Thr Ala Phe
85 90 95
Gly Lys Gln Ile Ile Val Leu Ala Gly Glu Pro Ser Ser Ala Pro Arg
100 105 110
Asp Pro Val Glu Leu Ser Met Thr Tyr Ile Leu Asp Thr Ser Lys Ile
115 120 125
Arg Tyr Pro Thr Glu Thr Gln Asn Gly Asp Lys Val Gly Ala Pro Pro

```
    130                 135                 140
Leu Ala Met Arg Lys Gly Ser Ser Asp Arg His Gly Ala Pro Thr Gly
145                 150                 155                 160
Arg Thr Ser Arg Glu Ala Gln Asn Thr Pro Pro Ala Asp Ser Gln Gln
                165                 170                 175
Arg Arg Gly Pro Gly Gln Thr Arg Glu Ser Met Met Val Ala Pro Asn
            180                 185                 190
Gly Arg Pro Gly Asp His Gly Pro Gly Pro Gly Ser Arg Leu Pro Arg
        195                 200                 205
Ala Ser Ile Ala Gln Ala Pro Ala Gly Pro Pro Pro Pro Gly Gln Ala
    210                 215                 220
Pro Thr Pro Gly Pro Arg Gly Ser Thr Pro Gln His Ala Met Asn Pro
225                 230                 235                 240
Arg Ser Lys Thr Pro Thr Asp Arg Asn Tyr Gly Gly Pro Ala Ala Asp
                245                 250                 255
Thr Val Arg Thr Met Glu Ser Glu Arg Asp Arg Glu Ser Pro Val Ala
            260                 265                 270
Arg Asp Ser Ser Lys Asp Pro Arg Ser Ala Asn Asp Pro Arg Ser Met
        275                 280                 285
Ser Ser Gly His Arg Thr Pro Thr Gln Thr Pro Ser Arg Met Ser Ala
    290                 295                 300
Lys Ser His Gly Gly Trp Arg Ser Cys Ser Phe Ser Gln Thr Ala Leu
305                 310                 315                 320
Ser Thr Ser Ala Ser Pro Thr Gln Leu His Gly
                325                 330
```

<210> 32414
<211> 127
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (23)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32414

```
Ser Phe Val Pro Cys Gly Glu Asp Pro Glu Arg Ile Asp Ser Leu Gln
1               5                   10                  15
Cys Leu Gly Gly Pro Pro Xaa Glu Ser Ser Lys Gly Asn Tyr Gly Val
            20                  25                  30
Gln Gly Ser Met Arg Gly Ser Met Lys Asn Pro Trp Ser Trp Asp Asn
        35                  40                  45
Thr Ala Met Val Tyr Gly Gly Lys Lys Asn Gln Phe Thr Trp Asn Asn
    50                  55                  60
Asn Cys Gly Asn Thr Thr Ala Gln Asn Cys Gly Asn Thr Val Ser Thr
65                  70                  75                  80
Asn Cys Gly Asp Thr Ser Thr Tyr Asn Asn Thr Lys Thr Ile Gln Thr
                85                  90                  95
Gly Asp Ile Ser Ser Asn Gly Gly Asn Ala Ser Asn Ala Ser Gly Thr
            100                 105                 110
Ala Ser Gly Gly Ser Gly Gly Arg Ile Ile Ile Asp Gly His Asp
        115                 120                 125
```

<210> 32415
<211> 69

<212> PRT
<213> A.fumigatus

<400> 32415
Cys Ile Leu Pro Phe Asp Ile Thr Leu Val Gly Thr Lys Thr Tyr Val
1 5 10 15
Glu Arg Leu Asn Leu Gly Met Ala Lys Thr Ile Cys Leu Pro Thr Pro
20 25 30
Leu Ala Pro Gln Leu Thr Leu Ile Tyr His Lys Leu Val Ile Tyr His
35 40 45
Leu Val Ser Ser Ser Pro Ala Ile Tyr Pro Glu Asp Tyr Glu Ile Ile
50 55 60
Gln Phe Leu Leu Ala
65

<210> 32416
<211> 496
<212> PRT
<213> A.fumigatus

<400> 32416
Cys Leu Pro Ser Glu Arg Gly Ser Ser Ser Pro Ala Ala Lys Leu Ser
1 5 10 15
Lys Gly Pro Ser Ser Pro Lys Arg Leu Asp Glu Ala Ile Lys Gly Ser
20 25 30
Lys Phe Met Lys Arg Leu Ile Gly Phe Tyr Arg Pro Phe Lys Tyr Arg
35 40 45
Phe Ser Met Val Pro Asn Thr Lys Pro Asn Gln Arg Tyr Ile Arg Thr
50 55 60
Gly Cys Ala Leu Met Arg Thr Leu Val Gln Val Pro Glu Gly Thr Lys
65 70 75 80
Tyr Leu Ala Glu Asn Lys Phe Leu Arg Gln Val Ala Glu Cys Leu Ala
85 90 95
Gln Val Asp Arg Met Ser Gly Leu Thr Ser Ser Ser Pro Leu Phe Ser
100 105 110
Arg Glu Gln Met Ala Thr Thr Leu Ser Gly Gly Tyr Phe Ala Met Leu
115 120 125
Gly Thr Leu Ser Gly Asp Pro Asn Gly Leu Ala Met Met Glu Arg Trp
130 135 140
His Met Leu Asn Met Phe Tyr His Ile Ile Glu Leu Arg Asp Arg Asp
145 150 155 160
Asp Leu Ile Gln Thr Leu Leu Gly Asn Leu Asp Tyr Ser Gln Glu Ser
165 170 175
His Leu Arg Val Leu Leu Ser Lys Ala Leu Thr Thr Gly Ser Lys Asp
180 185 190
Ile Arg Ile Phe Ala Thr Lys Leu Leu Arg Lys Tyr Ala Val Gly Asn
195 200 205
Ala His Leu Ser Ala Gln Gly Gly Leu Gly Arg Ala Asp Trp Val Val
210 215 220
Lys Leu Leu Val Thr Gln Leu Tyr Asp Pro Asp Val Ser Val Cys Gln
225 230 235 240
Ile Ala Val Lys Ile Leu Glu Glu Ala Cys Asn His Arg Asp Tyr Leu
245 250 255
Glu Tyr Val Val Lys Cys Arg Pro Ser Leu Asp His Leu Gly Glu Ile
260 265 270
Gly Ala Pro Leu Leu Leu Arg Phe Leu Ser Thr Ser Val Gly Tyr His

```
        275                 280                 285
Tyr Leu Asp Gly Leu Asp Tyr Ile Thr Gln Glu Met Asp Asp Trp Phe
    290                 295                 300
Leu Gly Arg Asn Asp Ala Tyr Val Gly Leu Val Glu Ala Ala Leu Ser
305                 310                 315                 320
Arg Ala Tyr Val Asp Gln Pro Arg Arg Gly Ser Phe Ala Pro Glu Asp
                325                 330                 335
Phe Val Asp Leu Gln Asp Val Gly Val Val Pro Pro His Phe Tyr Arg
            340                 345                 350
Glu Leu Ala Arg Thr Lys Glu Gly Cys Arg Leu Leu Glu Gln Ser Gly
        355                 360                 365
His Phe Ser Glu Phe Ala Trp Thr Ile Arg Asp Phe Arg Leu Asp Glu
    370                 375                 380
Glu Asp Thr Glu Ala Leu Leu Lys Val Lys Gly Cys Leu Trp Ala Val
385                 390                 395                 400
Gly Asn Val Gly Ser Met Glu Leu Gly Ala Pro Phe Leu Glu Thr Asp
                405                 410                 415
Ile Val Gln Gln Ile Val Lys Ile Ala Glu Ser Ala Glu Val Leu Thr
            420                 425                 430
Met Arg Gly Thr Ala Phe Phe Val Leu Gly Leu Ile Ser Arg Ser Arg
        435                 440                 445
His Gly Leu Lys Val Leu Arg Glu Ala Gly Trp Asp Ser Ala Val Asp
    450                 455                 460
Gln Lys Gly Asp Ser Ile Gly Leu Ser Leu Pro Thr Asp Phe Lys Lys
465                 470                 475                 480
Leu Phe Leu Val Gly Asn Thr Leu Ala Val Thr Ala Ser Lys Val Tyr
                485                 490                 495
```

<210> 32417
<211> 84
<212> PRT
<213> A.fumigatus

<400> 32417

```
Trp Thr Val Ser Trp Leu Gly His Pro Phe Trp Ala Phe Val Thr Phe
1               5                   10                  15
Ser Ser Ser Tyr Val Lys Thr Ile Ile Val Thr Tyr Leu Phe Leu Pro
            20                  25                  30
Leu Leu Ser Leu Thr Val Asn Asp Asp Asp Gly Tyr Glu Pro Pro Tyr
        35                  40                  45
Cys Ile Pro Asp Phe Lys Val Arg His Ser Thr Arg Asn Ala Thr Phe
    50                  55                  60
Ser Ser Arg Val Pro Pro Ser Val Leu Val Trp Arg Ser Gly Met Ser
65                  70                  75                  80
Ser His Glu Gln
```

<210> 32418
<211> 403
<212> PRT
<213> A.fumigatus

<400> 32418

```
Arg Pro Gly Phe Leu Glu Lys Arg Arg Asp Phe Trp Glu Asp Leu Arg
1               5                   10                  15
Arg Gly Asn Lys Thr Leu Gly Cys Pro Gly Asp Glu Gln Phe Thr Gly
```

```
            20                  25                  30
Asp Leu Thr Trp Arg Phe Pro Gly Gly Lys Ala Thr Leu Pro Arg Ala
        35                  40                  45
Glu Pro Ser Gln Arg Asp Ile Ser Ala Gln Gln Leu Leu Asn Thr Phe
    50                  55                  60
Leu Asn Gly Asp Ala Thr Ile Gly Thr Leu Thr Ser Ser Pro Phe Glu
65                  70                  75                  80
Ile Ser His Lys Tyr Ile Asn Phe Leu Val Gly Gly Gly Ser Asn Leu
                85                  90                  95
Asn Glu Thr Ala Ile Arg Leu Lys Val Asn Gly Gln Thr Val His Thr
            100                 105                 110
Ser Thr Gly Ser Asn Ser Glu Gly Leu Ala Trp Gln Ser Trp Asp Val
        115                 120                 125
Ser Ala Leu Gln Gly Lys Thr Ala Val Ile Glu Ile Ile Asp Asn Ser
    130                 135                 140
Thr Gly Gly Trp Gly His Ile Asn Val Asp Gln Ile Ser Phe Ser Asn
145                 150                 155                 160
Gln Pro Ala Thr Ser Thr Ile Ala Asn Trp Met Asp Trp Gly Pro Asp
                165                 170                 175
Phe Tyr Ala Ala Leu Gly Phe Asn Gly Leu Pro Gln Asp Lys Arg Thr
            180                 185                 190
Ile Ile Ala Trp Met Asn Asn Trp Gln Tyr Gly Gly Val Ile Pro Thr
        195                 200                 205
Asp Pro Trp Arg Ser Ala Met Ser Val Pro Arg Gln Leu Ala Leu Lys
    210                 215                 220
Thr Ile Asn Gly Lys Ala Thr Ile Val Gln Glu Pro Ala Gly Lys Trp
225                 230                 235                 240
Ser Ala Leu Thr His Gly Gly Gln Thr Phe Ser Phe Pro Arg Val Glu
                245                 250                 255
Gly Val Arg Gly Leu Gly Arg Ile Gly Lys Thr Leu Glu Leu Glu Leu
            260                 265                 270
Thr Phe Ser Ser Arg Gln Ser Pro Ala Ala Gly Lys Ala Glu Phe Gly
        275                 280                 285
Val Ala Val Ala Ala Thr Lys Asp Tyr Ser His Glu Thr Arg Val Gly
    290                 295                 300
Tyr Asn Phe Ala Thr Gln Gln Val Phe Val Asp Arg Thr His Ser Gly
305                 310                 315                 320
Asp Thr Ser Phe Asp Gly Thr Phe Ala Ser Val Tyr Gln Ala Pro Leu
                325                 330                 335
Ala Pro Ser Ala Asp Gly Thr Val Ser Leu Arg Val Leu Val Asp Trp
            340                 345                 350
Ser Ser Val Glu Val Phe Gly Gly His Gly Glu Val Thr Ile Thr Ser
        355                 360                 365
Gln Ile Phe Pro Ala Ser Asp Ala Val Tyr Gly Arg Leu Phe Ser Thr
    370                 375                 380
Asp Gly Glu Thr Lys Asn Val Lys Leu Arg Val Lys Glu Val Arg Ser
385                 390                 395                 400
Thr Trp Arg
```

<210> 32419
<211> 80
<212> PRT
<213> A.fumigatus

<400> 32419

```
Leu Gly Ser Ala Arg Gly Ser Val Ala Phe Pro Pro Gly Asn Arg Gln
1               5                  10                  15
Val Lys Ser Pro Val Asn Cys Ser Ser Pro Gly His Pro Ser Val Leu
            20                  25                  30
Phe Pro Leu Arg Lys Ser Ser Gln Lys Ser Leu Leu Phe Ser Arg Asn
        35                  40                  45
Pro Gly Arg His Lys Ile Arg Phe Gly Ile Trp Gly Phe Lys Leu Met
    50                  55                  60
Pro Leu Glu Ile Pro His Leu Ile Ser Arg Ile Pro His Asn Pro Thr
65                  70                  75                  80
```

<210> 32420
<211> 180
<212> PRT
<213> A.fumigatus

<400> 32420

```
Pro Arg Leu Ser Ala Thr Ser Ser Phe Leu Glu Ser Gly Trp Gln Ser
1               5                  10                  15
Thr Arg Ser Ser Arg Pro Ser Phe Pro His Thr Leu Thr Ile Gln Ile
            20                  25                  30
Pro Ser Arg Asp Arg Lys Tyr Thr Gln Val Gly Trp Lys Pro Arg Ala
        35                  40                  45
Gly Asn Ser Lys Lys Leu Val Ile Gly Leu Asp Pro Val Pro Lys Phe
    50                  55                  60
Leu His Arg Leu Val Asp Gly Trp Ala Pro Asp Gly Ser Met Val Val
65                  70                  75                  80
Ser Phe Lys Leu Gly Asn Arg Ser Gln Pro Ala Cys Leu Gln Gly Ala
                85                  90                  95
Asp Gly Ala Glu Ala Val Leu Thr Pro Ser Gly Tyr Trp Gln Pro Ser
            100                 105                 110
Leu Asn Thr Gln Met Gly Gly Arg Leu Cys Asp Ala Arg Ser Pro Ile
        115                 120                 125
Arg Thr Leu Asp Ser Gly Ala Gln Val Glu Thr Glu Gln Glu His Leu
    130                 135                 140
Trp Cys Gly Arg Ser Gly Gly Pro Gly Arg Gly Arg Glu Ser Glu Arg
145                 150                 155                 160
Ile Gly Glu Pro Ser Gln Trp Gly Ser Pro Arg Gly Gln Arg Pro Glu
                165                 170                 175
Thr Ser Lys Cys
            180
```

<210> 32421
<211> 158
<212> PRT
<213> A.fumigatus

<400> 32421

```
Ser Val Trp Thr Arg Cys Pro Ser Phe Cys Ile Asp Trp Trp Thr Ala
1               5                  10                  15
Gly His Leu Met Glu Val Trp Leu Ser Pro Ser Ser Trp Glu Thr Asp
            20                  25                  30
Pro Asn Leu Leu Val Tyr Lys Ala Arg Thr Ala Leu Lys Arg Tyr Ser
        35                  40                  45
His His Leu Val Ile Gly Asn Leu Leu Ser Thr Arg Lys Trp Glu Val
    50                  55                  60
```

```
Val Phe Val Thr Pro Asp Pro Pro Tyr Glu Arg Trp Ile Arg Val Pro
65                  70                  75                  80
Lys Ser Arg Arg Ser Lys Ser Ile Ser Gly Ala Glu Asp Gln Val Gly
                85                  90                  95
Leu Ala Glu Ala Gly Arg Ala Ser Glu Ser Ala Asn Arg Pro Ser Gly
            100                 105                 110
Glu Ala Arg Glu Asp Asn Asp Gln Lys Pro Ala Ser Val Asn Thr Ala
        115                 120                 125
Glu Gly Val Glu Ile Glu Ser Leu Ile Ile Pro Glu Leu Val Gln Leu
    130                 135                 140
His Ser Asn Met Ile Ala Lys Gln Gln Ala Lys Gln Arg Pro
145                 150                 155
```

<210> 32422
<211> 275
<212> PRT
<213> A.fumigatus

<400> 32422

```
Arg Ile Gly Ala Val Ser Gln Arg Arg Pro Phe Thr Met Ala Ala Ala
1               5                   10                  15
Thr Thr Glu Glu Met Thr Pro Ala Glu Gln Glu Ser Val Tyr Phe Asn
            20                  25                  30
Asn Tyr Pro Pro Pro Lys Asn Leu Pro Lys His Glu Ala Leu Ala Arg
        35                  40                  45
Ala Phe Ile Glu Tyr His Ala Glu Ala Asn Arg Arg Leu Val Leu Val
    50                  55                  60
Thr Ser Gly Gly Thr Thr Val Pro Leu Glu Asn Gln Thr Val Arg Phe
65                  70                  75                  80
Ile Asp Asn Phe Ser Ala Gly Thr Arg Gly Ala Thr Ser Ala Glu Tyr
                85                  90                  95
Phe Leu Gln Glu Gly Tyr Ala Val Ile Phe Leu His Arg Gln Phe Ser
            100                 105                 110
Leu Leu Pro Tyr Ser Arg His Tyr Ser His Ser Thr Asn Cys Phe Leu
        115                 120                 125
Asp Phe Met Asp Glu Ala Pro Pro Ser Gly Ser Ser Glu Ser Ala Asn
    130                 135                 140
Pro Gly His Gly Pro Ile Val Val Arg Ser Glu Tyr Gln Asp Gln Met
145                 150                 155                 160
Arg Asp Val Leu Arg Lys Tyr Arg Tyr Ala Lys Gln Asn Asn Leu Leu
                165                 170                 175
Leu Leu Leu Pro Phe Thr Thr Ile Ser Glu Tyr Leu Phe Glu Leu Arg
            180                 185                 190
Met Leu Ala Lys Leu Met Arg Pro Leu Gly Pro Asn Ala Leu Phe Tyr
        195                 200                 205
Leu Ala Ala Ala Val Ser Asp Phe Phe Ile Pro Arg Glu Arg Met Ala
    210                 215                 220
Glu His Lys Ile Gln Ser Ser Glu Leu Pro Ala His Leu Asp Asn Ser
225                 230                 235                 240
Asn Ser Val Ala Gly Ser Glu Ile Tyr Thr Gly Gly Leu Glu Thr Gln
                245                 250                 255
Gly Arg Lys Gln Gln Glu Thr Arg Asp Arg Ser Gly Pro Gly Ala Gln
            260                 265                 270
Val Ser Ala
        275
```

<210> 32423
<211> 61
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (37),(58)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32423
Arg Ala Ile Gly Gly Leu Lys Ala Ser Ile Ala Leu Asn Ser Ser Val
1 5 10 15
Ile Val Trp Phe Thr Phe Arg Leu Gly Arg Thr Tyr Leu Ile Lys Ser
20 25 30
Pro Pro Ser Ala Xaa Gly Ala Pro Leu Gln Phe Phe Ser Thr Tyr Ile
35 40 45
Ile Arg Leu Thr Leu Phe Gln Gly Leu Xaa Asn Cys Ser
50 55 60

<210> 32424
<211> 99
<212> PRT
<213> A.fumigatus

<400> 32424
Thr Gln Pro Thr Arg Gln Val Asp Phe Pro Val Gly Pro Lys Lys Gly
1 5 10 15
Lys Arg Gly Gly Thr Lys Arg Lys Glu Glu Phe Arg Lys Met Leu Ala
20 25 30
Lys Gln Asn Gly Asn Lys Val Asp Glu Glu Leu Gln Glu Glu Val Val
35 40 45
Lys Lys Thr Trp Asp Ser Asn Val Ile Thr Pro Gly Thr Pro Phe Met
50 55 60
Asp Ile Leu Ala Ala Ser Leu Arg Tyr Trp Ile Ala Tyr Lys Leu Asn
65 70 75 80
Thr Asp Pro Ala Trp Glu Lys Val Arg Tyr Phe Gly Gly Ser Asn Ala
85 90 95
Asn Ala Cys

<210> 32425
<211> 605
<212> PRT
<213> A.fumigatus

<400> 32425
Asp Ala Asp Leu Ile Met Leu Gly Leu Ala Thr His Glu Pro His Phe
1 5 10 15
Arg Val Leu Arg Glu Asp Val Phe Phe Gln Glu Ser Arg Ala Arg Thr
20 25 30
Cys His Leu Cys Gly Gln Gln Gly His Lys Ala Glu Glu Cys Arg Gly
35 40 45
Gln Ala Lys Glu Lys Asn Gly Glu Phe Asp Glu Lys Gln Lys Gly Ser
50 55 60
Ser Leu Lys Pro Phe Ile Trp Leu His Val Ser Ile Leu Arg Glu Tyr

65 70 75 80
Leu Ala Ala Glu Leu Tyr Val Pro His Gln Pro Phe Pro Phe Asp Leu
85 90 95
Glu Arg Ala Leu Asp Asp Trp Val Phe Met Cys Phe Phe Val Gly Asn
100 105 110
Asp Phe Leu Pro His Leu Pro Ser Leu Asp Ile Arg Glu Asn Gly Ile
115 120 125
Asp Thr Leu Ile Ala Ile Trp Arg Asp Asn Ile Pro Val Met Gly Gly
130 135 140
Tyr Leu Thr Glu Asp Gly His Val Asp Leu Lys Arg Ala Gln Leu Ile
145 150 155 160
Leu Gln Gly Leu Ala Lys Gln Glu Asp Ala Ile Phe Arg Arg Arg Arg
165 170 175
Gln Ala Glu Glu Arg Lys Leu Ala Asn Glu Lys Arg Arg Lys Gln Glu
180 185 190
Ala Lys Ala Arg Glu Glu Glu Arg Ala Arg Lys Arg Arg Arg Ser Ser
195 200 205
Pro Thr Tyr Glu Pro Met Asp Ser Pro Val Gly His Arg Ala Pro Arg
210 215 220
Gly Gly Gly Asp Ala Ala Pro Pro Asn Gln Leu Glu Leu Ile Thr Pro
225 230 235 240
Ser Arg Gly Glu Leu Ser Arg Gln Thr Arg Glu Leu Thr His Ser Met
245 250 255
Val Val Asn Arg Gly Ala Val Tyr Arg Ala Asn Met Ala Asn Lys Ser
260 265 270
Ala Ala Ala Val Leu Lys Ser Lys Leu Met Gln Gly Ser Gln Asn Gly
275 280 285
Gln Asn Gly Glu Glu Lys Ser Glu Gly Ala Thr Thr Asn Asn Asp Glu
290 295 300
Pro Ser Gln Asp Gln Pro Asp Gln Thr Glu Gln Thr Ser Pro Ser Val
305 310 315 320
Leu Gly Lys Arg Lys Ala Asp Leu Val Glu Glu Glu Asp Thr Asp Ala
325 330 335
Gly Thr Pro Gly Arg Asp Ser Pro Ala Val Pro Val Ala Ala Lys Glu
340 345 350
Asp Glu Leu Pro Pro Asp Thr Val Arg Leu Trp Glu Glu Gly Tyr Ala
355 360 365
Asp Arg Tyr Tyr Glu Gln Lys Phe Gly Val Asp Pro Gln Asp Lys Glu
370 375 380
Phe Arg His Lys Val Ala Arg Ala Tyr Ala Glu Gly Leu Ala Trp Val
385 390 395 400
Leu Leu Tyr Tyr Phe Gln Gly Cys Pro Ser Trp Thr Trp Tyr Tyr Pro
405 410 415
Tyr His Tyr Ala Pro Phe Ala Ala Asp Phe Val Asp Ile Gly Asp Met
420 425 430
Glu Ile Thr Phe Asp Lys Gly Val Pro Phe Lys Pro Phe Glu Gln Leu
435 440 445
Met Gly Val Leu Pro Ala Ser Ser Asn His Ala Ile Pro Lys Val Phe
450 455 460
His Asp Leu Met Ser Ser Pro Asp Ser Glu Ile Ile Asp Phe Tyr Pro
465 470 475 480
Glu Asp Phe Ala Val Asp Leu Asn Gly Lys Lys Phe Ala Trp Gln Gly
485 490 495
Val Ile Leu Leu Pro Phe Ile Asp Glu Lys Arg Leu Leu Ala Ala Met
500 505 510
Glu Lys Lys Tyr Pro Leu Leu Thr Glu Asp Glu Lys Leu Arg Asn Ser

```
        515                 520                 525
Val Gly Arg Glu Val Leu Leu Ile Ser Glu Ala His Pro Leu Tyr Gln
    530                 535                 540
Asp Leu Val Ala Asn Phe Tyr Ser Lys Lys Gln Gly Val Gln Lys Tyr
545                 550                 555                 560
Lys Leu Asn Met Arg Ile Ser Asp Gly Leu Ala Gly Lys Val Glu Arg
                565                 570                 575
Asn Glu Ala Tyr Ile Pro His Ser Ser Leu Pro Ser Ser Leu Glu Glu
            580                 585                 590
Tyr Gly Met Pro Ser Leu Glu Asp Asp Arg Ser Leu Thr
        595                 600                 605
```

<210> 32426
<211> 223
<212> PRT
<213> A.fumigatus

<400> 32426

```
Leu Thr Ser Phe His Pro Ser Val Asn Tyr Glu Ile Pro Lys Ser Asn
1               5                   10                  15
His Val His Lys Ser Met Leu Leu Arg Gly Val Lys Phe Asn Pro Pro
            20                  25                  30
Ala Leu Asp Asn Ala Asp Ile Gln Ala Val Lys His Lys Ala Gln Asn
        35                  40                  45
Ser Gly Arg Ser Tyr Gly Gly Ala Pro Leu Arg Gly Gly Gln Lys Gly
    50                  55                  60
Gly Arg Ile Asn Tyr Ala Ser Asp Arg Pro Asn Pro Phe Ala Ala His
65                  70                  75                  80
Leu Asp Pro Gly Phe Ile Pro Pro Val Pro Gly Asn Val Gly Gly Gly
                85                  90                  95
Pro Ile Met Pro Ser Gly Trp Val Pro Pro Ile Pro Gly Ser Ala Gly
            100                 105                 110
Phe Ser Arg Gly Pro Pro Pro Pro Pro His Gly Gly Met Ser Gly Ser
        115                 120                 125
His His Arg Pro Pro Tyr Gly Gln Gly Pro Gly Gln Tyr Gln Gly Asn
    130                 135                 140
His Gly Gln Gly Asp His Tyr Gly Gln Gly Gln Gln Gly Tyr Tyr Asn
145                 150                 155                 160
Gln Ser Ser Tyr Tyr Asn Gln Ser Asn Gln Tyr Asn Gly Arg Ser Ser
                165                 170                 175
Asp His Gly Gly Ser Gly Gly Tyr Arg Gly Gly Gly Gly Tyr His Arg
            180                 185                 190
Gly Gly Asn Tyr Arg Gly Gly Gly Tyr Arg Asp Gln Arg Gln Tyr Asn
        195                 200                 205
Gln Asp Gln Tyr Ser Ser Arg Asn Ser Gly Gly Tyr Gly Arg Tyr
    210                 215                 220
```

<210> 32427
<211> 75
<212> PRT
<213> A.fumigatus

<400> 32427

```
Gly Gly Arg Ile Ile Asp Glu Cys Val Gln Val Gly Phe Asn Ala Asn
1               5                   10                  15
Thr Phe Cys Ser Phe Ser Val Leu Thr Asn Leu Gly Cys Ser Ala Leu
```

```
            20                  25                  30
Ala Ser Leu Asp Asp Asn Met Ala Thr Ser Pro Pro Ser Asn Pro Thr
        35                  40                  45
Ser Pro Leu Leu Thr Lys Ser Gln Pro Ala Val Glu Arg Arg Pro Ser
    50                  55                  60
Lys Ala Pro Ser Thr Thr Gly Glu Glu Ala Ser
65                  70                  75
```

<210> 32428
<211> 82
<212> PRT
<213> A.fumigatus

<400> 32428

```
Leu Thr Cys Val His Ala Leu Leu Val Pro Leu Leu Leu Cys Phe Tyr
1               5                   10                  15
Ala Thr Phe Ala Ser Thr Leu Ala Trp Cys Met Pro Ser Leu Phe Val
            20                  25                  30
Cys Val Ser Val Tyr Leu Arg Phe Ala Ala Ile Phe Ile Leu Asp Lys
        35                  40                  45
Met Pro Leu Glu Lys Phe Pro Ser Phe Pro Pro Leu Leu Arg Leu Gly
    50                  55                  60
Ile Tyr Leu Ser Tyr Arg Arg Cys Lys Leu His Val Tyr Ala Tyr Val
65                  70                  75                  80
Ser Ile
```

<210> 32429
<211> 132
<212> PRT
<213> A.fumigatus

<400> 32429

```
Ser Leu Ile Leu Lys Ala Ala Arg Ala Gln Gln Glu Ala Glu Met Glu
1               5                   10                  15
Arg Leu Arg Gln Gln Ala Asn Arg Gly Asn Arg Pro Gln Met Gly Arg
            20                  25                  30
Gly Asp Ala Arg Ser Phe Ser Gly Tyr Gly Asn Gln Ala Pro Pro Pro
        35                  40                  45
Asp Tyr Ala Ser Ser Lys Val Gly Ser Asp Asp Leu Arg Arg Leu Arg
    50                  55                  60
Thr Thr Arg Asn Thr Asn Gln Pro Met Ser Phe Gly Pro Ser Ser Met
65                  70                  75                  80
Leu Gly Ser Arg Ser Ser Ser Gly Arg Lys Asn Leu Gly Pro Gly Gly
                85                  90                  95
Asn Leu Val Arg Gly Ser Asp Asp Ser Ala Ala Ser Ser Arg Ser Gly
            100                 105                 110
Thr Pro Thr Ala Gly Lys Lys Glu Asp Lys Glu Ala Ala Ser Ser Met
        115                 120                 125
Asn Ala Phe Arg
    130
```

<210> 32430
<211> 624
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (356),(381),(386)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32430
Arg Gln Glu Arg Glu Arg Lys Glu Arg Glu Glu Arg Glu Ala Tyr Glu
1 5 10 15
Ala Asn Leu Lys Gln Ala Glu Ala Glu Ala Glu Ala Leu Glu Glu Glu
20 25 30
Arg Gln Arg Lys Arg Glu Ala Ala Ala Glu Thr Ser Asn Lys Glu Leu
35 40 45
Phe Ala Ala Leu Lys Lys Gly Gly Leu Ala Ala Thr Glu Asp Ser Thr
50 55 60
Pro Ala Asp Ser Gly Thr Ala Thr Pro Val Ser Asp Ile Ser Met Gly
65 70 75 80
Pro Pro Gly Lys Pro Ala Ser Ala Gln Lys Arg Glu Lys Pro Ala Ala
85 90 95
Leu Lys Leu Glu Thr Thr Lys Ala Val Glu Pro Pro Gln Pro Ser Ala
100 105 110
Ala Met Lys Ser Leu Gln Ser Ala Arg Phe Val Asp Asp Leu Ser Lys
115 120 125
Ile Asn Tyr Pro Pro Ser Ile Val Ser Pro Asn Pro Ala Leu Asn Ala
130 135 140
Asn Ala Pro Ala Asp Arg Lys Phe His Tyr Asn Lys Glu Phe Leu Leu
145 150 155 160
Gln Phe Gln Ser Val Phe Lys Glu Lys Pro Ser Ile Asp Trp Asp Ala
165 170 175
Arg Val Arg Glu Thr Val Gly Glu Ser Asp Thr Ser Arg Pro Gln Ser
180 185 190
Ala Arg Thr Pro Met Gly Ala Arg Asn Pro Ser Arg Gly Gly Val Ala
195 200 205
Gln Pro Phe Val Met Gly Ser Phe Gly Gln Pro Ala Ala Arg Thr Thr
210 215 220
Ser Glu Gln Arg Phe Ala Ala Ser Asn Ala Arg Gly Pro Ala Met Pro
225 230 235 240
Phe Gly Gln Phe Gly Arg Pro Pro Val Gly Met Gly Ala Pro Ser Ile
245 250 255
Ser Arg Pro Gly Ser Asn Met Gly Ile Gly Pro Gly Thr Pro Arg Gly
260 265 270
Gly Gly Ser Arg Ser Asn Thr Arg Thr Gly Ser Lys Arg Glu Lys Gln
275 280 285
Ser Ala Lys Lys Glu Glu Glu Met Ala Lys Ala Met Pro Leu Thr Ala
290 295 300
Gly Lys Glu Val Lys Ala Leu Gln Ile Ser Ser Thr Gly Trp Lys Pro
305 310 315 320
Arg Ser Ile Val Gln Pro Ala Ala Gly Pro Thr Pro Gly Gly His Leu
325 330 335
Pro Pro Asp Met Val Gln Arg Lys Val Lys Ala Pro Leu Asn Lys Met
340 345 350
Thr Leu Arg Xaa Phe Asp Arg Ile Ser Val Gln Phe Leu Glu Ile Val
355 360 365
Ser Gln Ser Lys Asp Glu Ser Asp Gly Arg Thr Leu Xaa Gln Val Ile
370 375 380
Gln Xaa Thr Phe Glu Lys Ala Thr Asp Glu Ala His Trp Ala Ser Ile

385 390 395 400
Tyr Ala Lys Phe Cys Lys Arg Met Leu Glu Ser Met Ser Pro Glu Ile
405 410 415
Lys Asp Glu Asn Ile Arg Asp Lys Asn Gly Asn Val Val Thr Gly Gly
420 425 430
Ser Leu Phe Arg Lys Tyr Leu Leu Asn Arg Cys Gln Glu Glu Phe Glu
435 440 445
Arg Gly Trp Lys Val Asn Leu Pro Pro Lys Pro Glu Gly Thr Thr Glu
450 455 460
Glu Ala Ala Met Leu Ser Asp Glu Tyr Tyr Ala Ala Ala Ala Ala Lys
465 470 475 480
Arg Arg Gly Leu Gly Leu Val Lys Phe Ile Gly Glu Leu Tyr Lys Leu
485 490 495
Gly Met Leu Thr Glu Arg Ile Met His Glu Cys Val Lys Lys Leu Val
500 505 510
Asp Tyr Glu Gly Met Pro Glu Glu Ala Glu Val Glu Ser Leu Thr Ser
515 520 525
Leu Leu Arg Thr Ile Gly Ala Ser Leu Asp Ala Ser Glu Arg Gly His
530 535 540
Thr Phe Met Asp Ala Tyr Phe Ala Arg Ile Asn Met Met Met Asp Ile
545 550 555 560
Pro Gly Leu Pro Ser Arg Leu Arg Phe Met Leu Met Val Ser Leu Ser
565 570 575
Pro Phe Arg Thr Cys Ser Phe Gly Ile Asn Leu Thr Asp Leu Gln Asp
580 585 590
Ile Val Asp Leu Arg Asn Ala Arg Trp Gln Ser Lys Asp Ala Asp Lys
595 600 605
Gly Pro Lys Thr Ile Gln Gln Ile Arg Glu Glu Val Cys Asp Arg Ser
610 615 620

<210> 32431
<211> 470
<212> PRT
<213> A.fumigatus

<400> 32431
Leu Pro Pro Arg Gly Glu Asp Ile Pro Phe Thr Ser Pro Lys Glu Val
1 5 10 15
Tyr Asp Glu Trp Arg Lys Met Ser Phe Gly Arg Pro Leu Asp Cys Ser
20 25 30
Ala Leu Thr Tyr Glu Lys Leu Thr Gly Gly Ser Gly Ile Gln Trp Pro
35 40 45
Cys Thr Lys Glu His Pro Tyr Gly Lys Asp Arg Leu Phe Asp Asp Gly
50 55 60
Lys Phe Phe Thr Asp Thr Asp Tyr Cys Glu Ser Tyr Gly His Asp Leu
65 70 75 80
Glu Thr Gly Thr Pro Tyr Thr Arg Ala Gln Tyr Gln Ala Met Asn Pro
85 90 95
Ala Gly Arg Ala Ile Leu Lys Ser Ala Gln Tyr Lys Pro Ser Leu Glu
100 105 110
Ile Pro Asn Glu Asp Tyr Pro Leu Leu Leu Ser Thr Gly Arg Asn Val
115 120 125
Phe His Phe His Thr Arg Thr Lys Thr Gly Arg Ala Arg Arg Leu Gln
130 135 140
Gln Ala Asp Gln Glu Pro Ile Val Gln Ile Ser Val Glu Asp Ala Gln
145 150 155 160

```
Ala Leu His Val Thr Glu Gly Glu Met Ala Val Val Arg Ser Arg Arg
                165                 170                 175
Gly Ser Val Glu Leu Pro Val Arg Ile Gly Gly Ile Asn Asp Gly His
            180                 185                 190
Val Phe Ile Pro Phe His Phe Gly Tyr Trp Asp Ala Thr Asp Gly Arg
        195                 200                 205
Ala Arg Ala Ala Asn Glu Leu Thr Ile Gly Arg Tyr Asn Val Glu Lys
    210                 215                 220
Thr Asp Trp Leu Glu Tyr Arg Ile Leu Thr Asn Ala Glu Gln Trp Asp
225                 230                 235                 240
Pro Val Ser Lys Gln Pro Met Phe Lys Ser Gly Ala Val Arg Ile Glu
                245                 250                 255
Lys Cys Val Gln Lys Glu Ala Glu Arg Gln Thr Met Ala Val Arg Ser
            260                 265                 270
Val Glu Met Arg Lys Pro Asp Ala Ala Ser Ser Ala Gly Asp Asn Ser
        275                 280                 285
Asn Asp Lys Lys Pro Ile Arg Arg Met Glu Leu Trp Leu Gly Ala Thr
    290                 295                 300
Asp Gln Ala Leu Glu Met Leu Arg Asp Met Tyr Val Asp Met Ile Pro
305                 310                 315                 320
Arg Leu Val His Asp Met Glu Ile Gln Ser Gly Leu Gln Val Met Arg
                325                 330                 335
Arg Ile Thr Cys Glu Ile Ser Asp Gln Phe Lys Pro Ile Ile Glu Arg
            340                 345                 350
Tyr His Glu Ser Gln Gln Tyr Gly Arg Arg Val Ala Glu His Leu Arg
        355                 360                 365
Asp Ser Ile Phe Pro Ala Ile Gly Glu Ser Lys Asp Pro Tyr Glu Ala
    370                 375                 380
Leu Ala Ala Leu Gln Ser Leu Asp Leu Phe Leu Thr Asp Ile Glu Gly
385                 390                 395                 400
His Leu Thr Ala Leu Ser Pro Ala Ser Gln Ala Leu Trp Asp Cys Asp
                405                 410                 415
Phe Ile Glu Ala Val Lys Phe Ala Gln Lys Gly Ile Gln Arg Gln Lys
            420                 425                 430
Gly Trp Val Ser Gln His Ile Lys Val Lys Ser Pro Gln Thr Leu Leu
        435                 440                 445
Val Pro Ser Ala Ala Ala Glu Glu Leu Ser Gly Glu Asp Ser Arg Met
    450                 455                 460
Ala Gly Gln Ile Arg Cys
465                 470
```

<210> 32432
<211> 84
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (7)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32432

```
Leu Lys Thr Asn Asp Ala Xaa Ser Ser Ser Pro Val Val Lys Thr Leu
1               5                   10                  15
Glu Glu Leu Lys Thr His Ser Asn Gln Pro Val Ser Phe Gly Cys Arg
            20                  25                  30
```

```
Ser Ser Leu Leu Leu Ile His Ile Trp Thr Lys Gly Thr Asn Ser Asp
        35                  40                  45
Ile Thr Ser Phe Phe His Ala Glu Val Arg Lys Val Pro Asp Asn Tyr
    50                  55                  60
Arg Leu Phe Glu Ile Val Val Asn Ser Leu Leu Trp Ala Glu Ile Gly
65                  70                  75                  80
Leu Phe Met Lys
```

<210> 32433
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32433

```
Glu Leu Lys Leu Asn Val Ser Ala Pro Thr Val Arg Ile Ile Ala Leu
1               5                   10                  15
Leu Glu Gly Pro Gly Tyr Thr Val Pro Gly Asn Leu Tyr Ala Ala Ser
            20                  25                  30
Trp Ala Ile Gly Leu His Gln Leu Ile Ala Gly Leu Ala Ser Asn Phe
        35                  40                  45
Ser Leu Phe Val Phe Thr Met Leu Ser Thr Ile Tyr Gln Phe His His
    50                  55                  60
Thr Leu Leu Pro Leu Ile Leu Thr Glu
65                  70
```

<210> 32434
<211> 201
<212> PRT
<213> A.fumigatus

<400> 32434

```
Thr Ile Gln Leu Leu Ser His Asp Ser Thr Thr Ala Gln Gln Ile Pro
1               5                   10                  15
Ile Thr Ser Gln Leu Phe Ser Ile Tyr Thr Glu Leu Val Arg Pro Val
            20                  25                  30
Tyr Ala Gly Ser Thr Leu His Ser Val Arg Ala Ala Phe Glu Lys Ala
        35                  40                  45
Ile Gly Asp Pro Ala His Leu Pro His Thr Gly Thr Gly Ala Leu Thr
    50                  55                  60
Asn Gly Val Ser Ser Ser Thr Ser Thr Ala Leu Ser Ser Leu Thr Leu
65                  70                  75                  80
Trp Lys Leu Tyr Ile Met Phe Glu Leu Ser Arg His Glu Ile Asn Arg
                85                  90                  95
Ala Lys Glu Val Phe Tyr Arg Ala Ile Arg Ala Cys Pro Trp Ser Lys
            100                 105                 110
Glu Leu Val Met Leu Ala Phe Thr His Leu Arg Ala Asp Val Val Arg
        115                 120                 125
Asp Arg Tyr Lys Asp Ser Pro Arg Lys Gly Glu Gly Met Gly Phe Asp
    130                 135                 140
Glu Leu Arg Arg Val Tyr Asn Val Leu Val Glu Lys Glu Leu Arg Ile
145                 150                 155                 160
His Val Asp Ile Glu Glu Glu Leu Asp Arg Leu Ala Ala Arg Arg Leu
                165                 170                 175
Glu Asp Ala Ala Met Ser Leu Gly Pro Ile Gln Met Pro Asp Asp Ala
            180                 185                 190
```

```
Glu Ser Glu Gly Glu Arg Met Gln Leu
        195                 200

<210> 32435
<211> 179
<212> PRT
<213> A.fumigatus

<400> 32435
Thr Arg Trp Gly Cys Thr Lys Ser Pro Ser Arg Thr Ala Arg Lys Cys
1               5                  10                  15
Pro Ser Cys Ser Ser Thr Asp Leu Thr Ala Pro Pro Pro Arg Thr Ser
            20                  25                  30
Leu Lys Thr Lys Leu Pro Ser Ser Ser Ala Pro Ala Ser Val Ser His
        35                  40                  45
Pro Gly Pro Pro Phe Ser Arg Thr Ser Gly Thr Ser Ala Gln Asp Arg
    50                  55                  60
Thr Arg Pro Ala Val Tyr Val Gly Ser Ser Ser Ser Gly Ser Ala Lys
65                  70                  75                  80
Thr Pro Pro Pro Ser Ser Gly Ser Arg Pro Phe Cys Pro Arg Ser Ser
                85                  90                  95
Pro Ser Pro Pro Ala Pro Pro Pro Ala Arg Ala Val Pro Ser Ser Cys
            100                 105                 110
Ala Ser Thr Pro Thr Ser Arg Ser Gly Ser Thr Arg Thr Leu Pro Pro
        115                 120                 125
Thr Ser Thr Ser Thr Pro Ser Val Arg Arg Ser Thr Arg Ser Leu Ser
    130                 135                 140
Ser Ala Val Ala Arg Thr Ser Ala Gly Leu Thr Ser Ile Gly Ser Ser
145                 150                 155                 160
Arg Gln Cys Glu Thr Gly Cys Met Thr Arg His Thr Cys Leu Val Ser
                165                 170                 175
Ile Arg Pro


<210> 32436
<211> 287
<212> PRT
<213> A.fumigatus

<400> 32436
Asp Ser Met Lys Tyr Lys Ala Gly Gln Trp Leu Phe Ile Gln Val Pro
1               5                  10                  15
Glu Val Ser Asn Thr Gln Trp His Pro Phe Thr Ile Thr Ser Cys Pro
            20                  25                  30
Phe Asp Pro Tyr Ile Ser Ile His Val Arg Gln Val Gly Asp Phe Thr
        35                  40                  45
Arg Ala Leu Gly Asp Ala Leu Gly Cys Gly Pro Ala Gln Ala Arg Asp
    50                  55                  60
Met Glu Gly Leu Asp Pro Leu Gly Met Tyr Glu Val Ala Leu Gln Asn
65                  70                  75                  80
Gly Gln Lys Met Pro Lys Leu Leu Val Asp Gly Pro Tyr Gly Ala Pro
                85                  90                  95
Ala Glu Asp Val Phe Glu Asn Glu Ile Ala Val Leu Ile Gly Thr Gly
            100                 105                 110
Ile Gly Val Thr Pro Trp Ala Ser Ile Leu Lys Asn Ile Trp His Leu
        115                 120                 125
```

```
Arg Thr Gly Pro Asn Pro Pro Arg Arg Leu Arg Arg Val Glu Phe Ile
    130                 135                 140
Trp Val Cys Lys Asp Thr Ser Ser Phe Glu Trp Phe Gln Ala Leu Leu
145                 150                 155                 160
Ser Ser Leu Glu Ser Gln Ser Ala Ser Ala Ala Ala Ser Gln Gly Ser
                165                 170                 175
Ala Glu Phe Leu Arg Ile His Thr Tyr Leu Thr Gln Arg Leu Asp Glu
            180                 185                 190
Asp Thr Ala Ala Asn Ile Tyr Leu Asn Ser Val Gly Gln Glu Val Asp
        195                 200                 205
Pro Leu Thr Glu Leu Arg Ser Arg Thr Asn Phe Gly Arg Pro Asp Phe
    210                 215                 220
Asn Arg Leu Phe Thr Ala Met Arg Asp Gly Leu His Asp Gln Thr Tyr
225                 230                 235                 240
Met Pro Gly Phe His Pro Ala Met Thr Thr Glu Ile Gly Val Tyr Phe
                245                 250                 255
Cys Gly Pro Asn Ala Ala Ala Arg Gln Ile Arg Glu Ala Ala Lys Arg
            260                 265                 270
Ala Ser Thr Arg Asp Val Arg Phe Lys Phe Trp Lys Glu His Phe
        275                 280                 285
```

<210> 32437
<211> 605
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (272)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32437

```
Pro Pro Val Tyr Leu Leu Val Lys Met Gln Lys Val Thr Arg His Ile
1               5                   10                  15
Pro Thr Lys Asp Asp Leu Gly Lys Ser Phe Ala Tyr Leu Arg Leu Leu
            20                  25                  30
Phe Ser Leu Asp Tyr Thr Ile Ala Asp Val Leu Leu Ile Ile Gly Gly
        35                  40                  45
Leu Leu Phe Ala Ile Cys Ala Gly Ile Pro Phe Pro Leu Leu Gly Ile
    50                  55                  60
Val Phe Gly Asp Leu Ile Asn Asp Leu Asn Thr Val Thr Cys Ser Ser
65                  70                  75                  80
Ser Asp Arg Ala Thr Ala Asp Leu Ser Ser Ala Val Arg Ala Lys Val
                85                  90                  95
Leu Tyr Val Ile Tyr Ile Thr Ile Ala Asn Phe Cys Phe Ile Tyr Ala
            100                 105                 110
His Ser Thr Cys Trp Cys Leu Val Ser Glu Arg Leu Ala Arg Arg Tyr
        115                 120                 125
Arg Arg Arg Tyr Phe Glu Ser Ile Ile Lys Gln Glu Ala Lys Phe Ile
    130                 135                 140
Glu Ser Leu Pro Ser Gly Asp Val Val Ser Arg Leu Val Ser Asp Ile
145                 150                 155                 160
Glu Leu Val Gln Ser Gly Thr Ser Glu Lys Val Gly Leu Val Ile Ser
                165                 170                 175
Thr Leu Ser Tyr Phe Val Ala Ala Tyr Val Val Ala Phe Ile Lys Val
            180                 185                 190
```

```
Pro Lys Ile Ala Gly Met Leu Val Ser Val Val Pro Cys Phe Phe Leu
        195                 200                 205
Met Ala Leu Gly Gly Gly His Tyr Ile Lys Lys Phe Ala Gly Arg Leu
    210                 215                 220
Ala Glu Lys Val Asn Ala Ala Thr Ser Ile Ala Ser Ser Ser Leu Ser
225                 230                 235                 240
His Leu Thr Leu Val His Ala Phe Asn Ala Asn Glu Arg Leu Glu Lys
                245                 250                 255
Arg Phe Ala Gly Leu Leu Phe Ala Ser Lys Lys Asp Ala Val Arg Xaa
            260                 265                 270
Ala Thr Thr His Ala Ala Gln Leu Gly Cys Leu Tyr Phe Ile Ala Tyr
        275                 280                 285
Ser Ala Asn Ala Leu Ala Phe Trp Glu Gly Ser Gln Met Ile Ser Lys
    290                 295                 300
Ser Val Ala Asp Gly Asn Ser Gly Thr Ser Val Gly Ala Val Tyr Thr
305                 310                 315                 320
Val Ile Phe Val Leu Ile Asp Ala Ser Phe Ile Leu Ser Gln Val Ala
                325                 330                 335
Pro Phe Ile His Val Phe Ala Ser Ala Ala Gly Ala Ser Glu Arg Leu
            340                 345                 350
Leu Gln Val Ile Asn Arg Pro Ser Ala Ile Asp Gly Thr Ser Asp Ser
        355                 360                 365
Gly Asp Lys Thr Ala Ala Phe Gly Glu Glu Asp Ile Arg Phe Arg Asp
    370                 375                 380
Val His Phe Lys Tyr Pro Ser Arg Pro Asp Val Pro Val Leu Gln Gly
385                 390                 395                 400
Val Thr Phe Asn Ile Pro Pro Lys Lys His Thr Ala Ile Val Gly Pro
                405                 410                 415
Ser Gly Gly Gly Lys Ser Thr Val Val Ala Leu Leu Glu Arg Phe Tyr
            420                 425                 430
Asp Pro Asp Ser Gly Asp Val Leu Ile Gly Asp Lys Asn Phe Arg Asp
        435                 440                 445
Ile Asn Val Arg Tyr Leu Arg Gly Asn Ile Gly Tyr Val Gln Gln Glu
    450                 455                 460
Pro Ser Leu Leu Asp Arg Thr Ile Leu Glu Asn Ile Ala Tyr Gly Leu
465                 470                 475                 480
Leu Ser Ser Ala Met Glu Arg His Gln Arg Leu Ala Pro Phe Ile Leu
                485                 490                 495
Asp Ser Ser Leu Pro Asp Leu Ala Glu Lys Ile Arg Glu Gly Leu Thr
            500                 505                 510
Glu Lys Glu Ala Leu Arg Glu Tyr Asp Ser Val Ser Thr Arg Leu Trp
        515                 520                 525
Thr Phe Ser Lys Lys Arg Leu Pro Met Arg Trp Arg Leu Ala Leu Leu
    530                 535                 540
Lys His Trp Pro Ile Val Ser Pro Pro Asn Val Gly Thr Ala Arg Asn
545                 550                 555                 560
His Phe Ser Gly Gly Gln Lys Ala Thr Ile Trp Phe Leu Pro Cys Ser
                565                 570                 575
Trp Ser Arg Thr Leu Ala Val Tyr Ile Trp Thr Lys Gln Leu Ser Val
            580                 585                 590
Leu Ile Leu Thr Val Glu Pro Leu Tyr Pro Gly Pro Phe
        595                 600                 605
```

<210> 32438
<211> 89
<212> PRT

<213> A.fumigatus

<400> 32438
Ile Ser Phe Ala Phe Asn Ser Phe Ile Leu His His Cys Leu Ser Thr
1 5 10 15
Leu Arg Leu Ala Leu Asp Thr Ala Pro Gly Gly Trp Arg Ala Asp Ala
20 25 30
Gly Ile Leu Thr Tyr Ser Ser Arg Phe Leu Ser Leu Pro Leu Ile Tyr
35 40 45
Ser Leu Cys Thr Ser Val Val Ser Asp Thr Phe Ala Pro Tyr Gly Gln
50 55 60
Gln Ser Phe Lys Gly Pro Phe Arg Arg Cys Ser Ala Lys Phe Gly Leu
65 70 75 80
Ile Lys Phe Ile Gly Ser Arg Arg Arg
85

<210> 32439
<211> 288
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (183)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32439
His Thr Val Val Ala Ser Cys Pro Ser Pro Ser Phe Ile Pro Cys Ala
1 5 10 15
His Arg Leu Ser Gln Thr His Ser Pro His Met Gly Asn Asn Pro Ser
20 25 30
Lys Gly Pro Ser Gly Asp Ala Pro Pro Ser Ser Ala Ser Ser Asn Leu
35 40 45
Ser Ala Pro Ala Gly Asp Lys Lys Val Asn Arg Arg Pro Ser Thr Asn
50 55 60
Ala Ile Ser Gly Ala Ala Lys Ala Thr Ala Ala Asp Pro Ser Ala Ser
65 70 75 80
Ile Glu Thr Ala Thr Gly His Ser Ala Thr Ala Arg Gln Thr Pro Val
85 90 95
Gln Gln Arg Leu Gln Ser Arg Asn Ile Thr Asp Ser Ser Arg Gly Asn
100 105 110
Ser Glu Arg His Asp Arg His Asp Ala Lys Lys Ala Glu Pro His Tyr
115 120 125
Arg Asp Ile Pro Ser Pro Asp Pro Ser Asn Pro Val Gln Val Pro Val
130 135 140
Ser Arg Ala Ala Ala Arg Asn Asp Ala Thr Val Ala Pro Ser Gly Pro
145 150 155 160
Pro Leu Asn Thr Tyr Tyr Ser Ala Ser Thr His Leu Gln Arg Pro Pro
165 170 175
Arg Met Pro Leu Pro Ile Xaa Ala Met Gln Pro Leu Leu Gln Val His
180 185 190
Arg Ser Ser Asp Arg Arg Leu Pro Ile Gly Phe Val Ser Gly Asp Arg
195 200 205
Ser Leu Gly Glu Gln Ala Ser Gln Asp Asn Ala Gly Ile Thr Asn Thr
210 215 220
Ala Ile Asp Asp Glu Glu Thr Leu Asp Glu Leu Glu Pro Tyr Thr Pro

```
225                 230                 235                 240
Ser Gly Val Gly Arg Ala Val Pro Thr Cys Ile Glu Trp Asn Gly Pro
                245                 250                 255
Gly Glu Lys Val Tyr Val Thr Gly Thr Phe Val Asn Trp Glu Lys Lys
            260                 265                 270
Tyr Arg Leu His Arg Lys Tyr Val Thr Leu His Ala Tyr Cys Cys Val
        275                 280                 285
```

<210> 32440
<211> 224
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (215)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32440

```
Tyr Val Asn Ser Glu Ser Asn Pro Gly Val Met Ser Thr Thr Leu Asn
1               5                   10                  15
Leu Arg Pro Gly Thr His His Leu Lys Phe Ile Val Asp Gly Glu Met
            20                  25                  30
Arg Ala Ser Asp Asn Leu Pro Thr Ala Val Asp Phe Thr Asn His Leu
        35                  40                  45
Val Asn Tyr Ile Glu Val Ser Ala Asp Asp Val Asn Gln Ser Arg Arg
    50                  55                  60
Gly Ser Asp Arg Thr Asn Lys Ser Ala Val Pro Ser Gly Val His Pro
65                  70                  75                  80
Pro Gln Val Ile Pro Asn Leu Ile Gly Asp Asp Arg Asn Gly Val Glu
                85                  90                  95
Asn Gln Ser Asp Lys Glu Glu Pro Glu Glu Ile Pro Leu Gly Asp Phe
            100                 105                 110
Gln Thr Ile Ile Pro Gln Phe Leu Val Asp Leu Asp Lys Asp Glu Asp
        115                 120                 125
Ser Pro Glu Tyr Gln Gln Ala Ala Asn Val Ile Gly Asp Thr Pro Thr
    130                 135                 140
Pro Pro Ser Leu Pro Leu Phe Leu Gly Lys Ser Ile Leu Asn Gly Thr
145                 150                 155                 160
Thr Pro Met Lys Asp Asp Ser Ser Val Leu Asn Tyr Pro Asn His Thr
                165                 170                 175
Val Leu Asn His Leu Ala Thr Ser Ser Ile Lys Asn Gly Val Leu Ala
            180                 185                 190
Thr Ser Val Thr Thr Arg Tyr Lys Arg Lys Val Arg Ser Pro Pro Asn
        195                 200                 205
Ser Thr Thr Phe Val Arg Xaa Ser Pro Pro Gly Leu Glu Ile Pro Arg
    210                 215                 220
```

<210> 32441
<211> 617
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (433)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32441

```
Tyr Glu Ile Tyr His Leu Gln Leu Pro Gln Val Arg Ala Leu Lys Phe
1               5                  10                  15
Asp Ile His Tyr Gln Asp Arg Asp Arg Val Ser Pro Gly Tyr Trp Phe
            20                  25                  30
Val Ala Pro Tyr Gly Gln Ile Glu Pro Glu Ala Pro Thr His Arg Phe
        35                  40                  45
Glu Gln Tyr Gln Ile Gly Pro Tyr Ile Tyr Asp Gly Asp Gly Thr Leu
    50                  55                  60
Val Trp Ala Gly Ser Pro Met Phe Asp Asn Arg Asn Val Phe Asp Phe
65                  70                  75                  80
Lys Ala Val His Ser Ile Gly Asp Glu Pro His Leu Ser Leu Val Trp
                85                  90                  95
Gln His Ser Trp Asp Asn Glu Asp Gln Gly His Gly Val Ile Leu Lys
            100                 105                 110
Asn Asn Tyr Glu Ile Gln Lys Lys Leu Pro Phe Arg Glu Asp Leu Gly
        115                 120                 125
Ala Phe Asp Ile His Glu Phe Asn Ile Leu Asp Asp Gly Lys Thr Gly
    130                 135                 140
Leu Ala Met Thr Tyr Arg Glu Gln Glu Ile Ser Leu Glu Asp Phe Gly
145                 150                 155                 160
Arg Pro Glu Glu Arg Thr Ala Ile Leu Ser Gly Gly Phe Val Arg Leu
                165                 170                 175
Asp Leu Asn Thr Ala Asp Ile Leu Phe Glu Trp Asp Ser Leu Asn Gln
            180                 185                 190
Val Pro Leu His Glu Ser Val His Tyr Gly Pro Asp Ser Pro Pro Glu
        195                 200                 205
Gly Arg Pro Gly Trp Asp Tyr Val His Ala Asn Ser Val Asp Met Asn
    210                 215                 220
Ala Ala Gly Asp Tyr Ile Val Ser Phe Arg Phe Thr Asn Thr Ile Tyr
225                 230                 235                 240
Leu Ile Ser Gly Ala Asp Gly Arg Ile Leu Trp Arg Leu Gly Gly Gln
                245                 250                 255
Gly His His Ser Asp Phe Val Gln Asp Phe Thr Phe Ser Lys Gln His
            260                 265                 270
Asp Ile Lys Phe Val Glu Ser Asn Gly Thr His His Ile Ile Ser Phe
        275                 280                 285
Leu Asn Asn Ala Ser Asp Glu Asp Thr Asn Asp Glu Pro Val Ser Ser
    290                 295                 300
Ala Leu Ile Val Glu Leu Asp Thr Gly Ala Gln Pro Met Thr Ala Asn
305                 310                 315                 320
Ala Ile Arg Arg Tyr Asn Arg Pro Asp Gly Gly Leu Thr Arg Leu Arg
                325                 330                 335
Gly Asn Pro Gln Leu Leu Pro Asn Asn Asn Leu Phe Val Gly Trp Ser
            340                 345                 350
Glu Arg Gly Tyr Ile Thr Glu Phe Ala Pro Glu Ser Glu Val Leu Leu
        355                 360                 365
Ser Ala Met Phe Asn Ser Thr Arg Phe Ser Thr Tyr Arg Ala Tyr Lys
    370                 375                 380
Phe Cys Val Pro Arg Arg Ala Pro Thr Arg Arg Pro Thr Cys Ser Pro
385                 390                 395                 400
Pro Val Pro Gly Thr Asp Ala Ser Asp Phe Val Thr Thr Ile Tyr Val
                405                 410                 415
Ser Trp Asn Gly Ala Thr Asp Val Ala Arg Trp Asn Phe Tyr Ala Arg
```

```
            420                 425                 430
Xaa Ala Ala Asn Ala Pro Pro Val Phe Ile Gly Asn Thr Thr Lys Thr
        435                 440                 445
Asn Phe Glu Thr Ile Tyr Leu Ala His Gly Tyr Leu Asp Trp Val Ser
    450                 455                 460
Ala Glu Ala Val Asp His Ala Gly Asn Val Leu Gly Val Ser Arg Val
465                 470                 475                 480
His Arg Ser Arg Val Pro Ala Asp Trp Ala Ala Ala Gly Phe Lys Gly
                485                 490                 495
Lys Val Thr Glu Leu His Pro Ala Asp Pro His Leu Leu Tyr Ser Leu
            500                 505                 510
Asn Gly Ala Asn Lys Gln Lys Gly Thr His Ser Ser Ile Pro Ala Gly
        515                 520                 525
Val Glu Ala Asp Thr Ser Gly Asn Ser Gly Ile Thr Ser Val Gly Thr
    530                 535                 540
Ala Glu Glu Ala Leu Arg Ile Ala Gln Glu Thr Tyr Glu Leu Val Arg
545                 550                 555                 560
Asp Phe Gly Ala Leu Phe Met Ser Val Leu Val Leu Cys Leu Val Ala
                565                 570                 575
Gly Ile Ala Ala Cys Val Tyr Thr Val Leu Arg Arg Arg Arg Arg Thr
            580                 585                 590
Lys Ala Tyr Gln His Val Pro Ser Glu Glu Gly Leu Pro Glu Glu Gln
        595                 600                 605
Ile Arg Leu Arg Ser Thr Thr Gln Glu
    610                 615
```

<210> 32442
<211> 184
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (177),(183)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32442

```
Arg His Ile Lys Met Leu Asp Leu Ser Leu Pro Thr Ala Leu Val Leu
1               5                   10                  15
Ile Asp Asn Gln Ala Ala Phe Thr His Pro Thr Tyr Trp Gly Thr Ser
            20                  25                  30
Arg Ser Asn Pro Ala Tyr Glu Thr Asn Leu Ala Ser Leu Leu His Ala
        35                  40                  45
Phe Arg Thr Ala Arg Lys Thr Asn Pro Thr Leu Pro Leu Glu Ile Ile
    50                  55                  60
His Val Phe His Ser Ser Pro Ser Pro Thr Ser Pro Leu His Pro Ala
65                  70                  75                  80
Asp Pro Ser Lys Gly Ala His Pro Leu Asp Phe Ala Gln Pro Ala Ala
                85                  90                  95
Asp Asn Ser Glu Pro Val Phe Trp Lys Asn Val Asn Ser Ser Phe Ile
            100                 105                 110
Gly Thr Gly Leu Glu Ala Tyr Leu Arg Asp Lys Lys Ile Arg Gln Val
        115                 120                 125
Val Phe Ala Gly Leu Thr Thr Asp His Cys Val Ser Thr Thr Val Arg
    130                 135                 140
Met Ala Ala Asn Leu Gly Val Ala Asp Val Tyr Pro Asp Gly Lys Pro
```

```
145                 150                 155                 160
Glu Ile Leu Ala Asp Gly Thr Gln Thr Val Lys Val Phe Thr Thr Gly
                165                 170                 175
Xaa Glu Gly Ser Thr Glu Xaa Gln
            180
```

<210> 32443
<211> 359
<212> PRT
<213> A.fumigatus

<400> 32443

```
Thr Asn Lys Val Ala Leu Ser Leu Ile Leu Val Gly Val Val Glu Ala
1               5                   10                  15
Gly Leu Phe Pro Gly Leu Ile Thr Tyr Leu Thr Leu Phe Tyr Ser Ser
            20                  25                  30
His Gln Ile Ala Leu Arg Thr Gly Tyr Leu Phe Ser Ser Ala Ala Ile
        35                  40                  45
Ala Gly Ala Phe Asp Gly Ile Leu Ala Tyr Gly Ile Gly Tyr Met Asp
    50                  55                  60
Gly Ile Ser Gly Leu Arg Gly Trp Arg Trp Ile Met Ile Leu Glu Gly
65                  70                  75                  80
Ile Pro Thr Val Ile Leu Gly Ile Ile Thr Trp Phe Val Leu Ala Asp
                85                  90                  95
Glu Pro Asp Thr Ala Tyr Tyr Leu Asn Glu Glu Glu Arg Ala Leu Ile
            100                 105                 110
Val Arg Cys Arg Asn Arg Tyr Val Gly Gln Thr Val Ser Ala Gln Lys
        115                 120                 125
Phe His Trp Ala Asp Val Lys Glu Gly Phe Leu Asp Trp Lys Ile Tyr
    130                 135                 140
Ala Phe Ser Ile Gly Gln Phe Gly Val Asp Thr Met Leu Tyr Gly Tyr
145                 150                 155                 160
Ser Thr Phe Leu Pro Thr Ile Ile Lys Gly Met Gly Ser Trp Ser Thr
                165                 170                 175
Pro Glu Val Gln Ala Leu Thr Ile Pro Cys Tyr Ala Leu Gly Ala Leu
            180                 185                 190
Ala Tyr Leu Ala Ile Ala Trp Leu Ser Asp Arg Leu Gln Arg Arg Ala
        195                 200                 205
Leu Phe Ile Cys Ile Phe Ser Val Ile Ser Met Val Gly Tyr Gly Ile
    210                 215                 220
Leu Ile Ser Asp Val Ser Ser Gly Ala His Tyr Phe Gly Ala Leu Leu
225                 230                 235                 240
Ile Ala Leu Gly Leu Tyr Val Thr Val Gly Leu Pro Leu Ala Trp Leu
                245                 250                 255
Pro Thr Thr Leu Pro Arg Tyr Gly Lys Arg Thr Leu Ala Thr Gly Met
            260                 265                 270
Gln Leu Thr Phe Gly Asn Val Ser Gly Val Met Ser Pro Phe Leu Tyr
        275                 280                 285
Lys Thr Thr Glu Ala Pro Arg Tyr Val Arg Gly Asn Ala Val Thr Leu
    290                 295                 300
Ser Leu Ile Gly Phe Ala Gly Met Met Trp Val Met Met Trp Leu Tyr
305                 310                 315                 320
Tyr His His Glu Asn Ser Arg Arg Ala Asn Gly Leu Glu Asp Glu Lys
                325                 330                 335
Ile Ala Gly Met Thr Glu Glu Glu Ile Gln Glu Leu Gly Asp Asn Ser
            340                 345                 350
```

Pro Arg Phe Arg Tyr Thr Thr
355

<210> 32444
<211> 214
<212> PRT
<213> A.fumigatus

<400> 32444
Ser Leu Lys His Leu Ile Ile Ser Ile Ser Ala Ser Thr Pro His Lys
1 5 10 15
Asn Thr Ala Ser Ala Ala Ile Ser Cys Gln Cys His Gly Val Thr Met
20 25 30
Ala Ala Gln Ser Lys Leu Leu Pro Pro Glu Arg Ser Ile Arg Gln Ile
35 40 45
Leu Ser Ser Leu Ser Ser Leu Tyr Leu Arg His Arg Lys Gln Ile Ser
50 55 60
Arg Thr Val Tyr Leu Ala Leu Phe Val Ala Leu Val Lys Arg Val His
65 70 75 80
Asn Ala Ile Ser Glu Gln Lys Ala Ala Ser Arg Ser Gln Val Asp Leu
85 90 95
Arg Lys Arg Pro Gly Thr Ser Ser Leu Gly Asp Gly Asp Glu Pro Pro
100 105 110
Arg Lys Arg Val Glu Val Asn Arg Glu Phe Phe Arg Asn Leu Leu Arg
115 120 125
Leu Leu Lys Ile Val Ile Pro Gly Trp Lys Ser Lys Glu Phe Arg Leu
130 135 140
Leu Ile Gly His Ser Val Phe Leu Val Leu Arg Thr Met Leu Ser Leu
145 150 155 160
Tyr Val Ala Glu Leu Asp Gly Arg Leu Val Ser Ser Leu Val Arg Gly
165 170 175
Lys Gly Lys Asp Phe Leu Leu Gly Leu Thr Trp Trp Met Ile Val Ala
180 185 190
Val Pro Ala Thr Phe Thr Asn Ser Met Val Ser Cys Cys Trp Ser Cys
195 200 205
Arg Ile Ala Ile Gly Phe
210

<210> 32445
<211> 215
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (120)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32445
Leu Ser Tyr His Gln Cys Lys Leu Ala Leu Ser Tyr Arg Lys Arg Leu
1 5 10 15
Thr Asp Tyr Ile His Asp Lys Tyr Leu Ser Asn Met Thr Phe Tyr Ala
20 25 30
Ile Ser Ala Leu Asp Asp Arg Val Lys Asn Pro Asp Gln Leu Ile Thr
35 40 45
Val Asp Val Ser Arg Phe Ser Asp Ser Leu Ala Glu Leu Tyr Ser Asn

```
    50                  55                  60
Leu Ala Lys Pro Ile Leu Asp Met Val Ile Tyr Asn Tyr Ser Leu Ser
65                  70                  75                  80
Lys Ser Val Gly Gly Glu Gly Leu Phe Ile Met Ser Leu Leu Val Gln
                85                  90                  95
Leu Ser Ala Asn Ile Met Arg Ala Leu Thr Pro Pro Phe Gly Lys Tyr
            100                 105                 110
Val Ala Asp Asp Ala Arg Leu Xaa Gly Gln Phe Arg Phe Leu His Ser
        115                 120                 125
Arg Leu Ile Asp Tyr Arg Glu Asp Val Ala Leu Tyr His Arg Gln Asp
    130                 135                 140
Ala Asp Lys Asp Ser Trp Thr Gln Gly Thr Ser Pro Ser Leu Thr Pro
145                 150                 155                 160
Ser Thr Gly Phe Tyr Gln Asp Gln Tyr Phe Pro Asp Ser Cys Glu Asp
                165                 170                 175
Leu Val Leu Lys Tyr Phe Arg Gly Ser Ser Lys Leu Asp Leu Val Leu
            180                 185                 190
Pro Ala Pro Phe Ser Ser Arg Leu Pro Arg Pro Asn Pro Pro Gln Leu
        195                 200                 205
Trp Arg Asn Ala Pro Lys Leu
    210                 215

<210> 32446
<211> 226
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (7)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32446
Gly Gly Gly Gly Ser Phe Xaa Pro Ser Thr Ile Val Tyr Lys Thr Leu
1               5                   10                  15
His Gly Pro Ile Gln Arg Phe Glu Asp Glu Tyr Pro Glu Thr Arg Val
            20                  25                  30
Lys Pro Ala Ser Val Val Ser Ala Leu Gln Glu Thr Ser Ser Gln Ile
        35                  40                  45
Ser Gly Asp Asp Ala Ala Ala Ala Pro Ala Gly Ser Gly Gln Leu Phe
    50                  55                  60
Gly Met Thr Ile Asp Glu Asn Ala Val Asp Asp Asp Asp Thr Asp Gln
65                  70                  75                  80
Tyr Ala Ile Arg Leu Ser Arg Thr Ser Ser Ile Thr Ser Leu His Ala
                85                  90                  95
Arg Ala Met Thr Ser Glu Glu Gly His Val His Arg Leu Gly Gln Asn
            100                 105                 110
Leu Arg Arg Asp Phe Leu Ser Pro Ser Leu Asn Gln Gly Asp Gly His
        115                 120                 125
Pro Ser Ser Thr Ser Leu Asp Glu Ser His Leu Glu Ala Leu Arg Asn
    130                 135                 140
Lys Leu Glu Arg Leu His Glu Glu Gln Thr Arg Ser His Phe Glu Gly
145                 150                 155                 160
Ala Asn Ala Asp Lys Ala Phe Glu Glu Met Gly Ser Val Val Glu Glu
                165                 170                 175
Leu Trp Ala Met Glu Lys Gln Asp Thr Ala Ala Phe Glu Gln Trp Arg
```

```
            180                 185                 190
Gln Thr Gln Ile Ala Ala Gln Ile Asn Ser Gly Lys Gln Thr Ala Ser
        195                 200                 205
Pro Lys Pro Ser Asp Ala Ile Lys Glu Gln Leu Glu Val Asn Gln Lys
    210                 215                 220
Pro Ser
225
```

<210> 32447
<211> 234
<212> PRT
<213> A.fumigatus

<400> 32447

```
Thr Thr Leu Lys Lys Asn Thr Tyr Ser Val Ser Ser Ala Pro Pro Pro
1               5                   10                  15
His Thr Ser Tyr Pro Glu Ile Asn Ala Pro Ile Asn Thr Thr Ala Thr
            20                  25                  30
Gln Asn Gly Ala Leu Gln Thr Glu Thr Pro Pro Ser Pro Ile Phe Thr
        35                  40                  45
Ser Tyr Glu Arg Gly Leu Leu Arg Ser Thr Trp Gly Thr Lys Arg Gly
    50                  55                  60
Val Ile Ser Arg Asp Ser Phe Leu Pro Phe Gly Ser Cys Arg Leu Cys
65                  70                  75                  80
Leu Gln Pro Ala Arg Thr Pro Val Ala Cys Ala Thr Asn Gly Asp Leu
                85                  90                  95
Phe Cys Arg Glu Cys Ala Ile Asn Asp Leu Leu Ala Gln Arg Gln Glu
            100                 105                 110
Ile Lys Arg Leu Glu Arg Glu Arg Glu Glu Ala Arg Lys Arg Leu Ala
        115                 120                 125
Glu Asp Glu Glu Arg Ala Leu Glu Asp Ala Arg Arg Arg Glu Leu Arg
    130                 135                 140
Glu Phe Glu Leu Val Ser Met Gly Leu Glu Ala Ala Lys Asn Asp His
145                 150                 155                 160
Thr Lys Gly Thr Gly Gly Gly Gly Gly Asn Gly Asp Ser Gln Arg Lys
                165                 170                 175
Arg Lys Ala Glu Glu Thr Glu Glu Ala Leu Ala Ala Phe Lys Ala Arg
            180                 185                 190
Glu Ile Glu Val Asp Gly Lys Arg Lys Lys Ile Phe Glu Leu Asp Glu
        195                 200                 205
Lys Glu Met Ala Arg Ile Ala Arg Glu Glu Gln Glu Arg Leu Lys Arg
    210                 215                 220
Glu Leu Lys Arg Glu Lys Val Leu Gly Leu
225                 230
```

<210> 32448
<211> 118
<212> PRT
<213> A.fumigatus

<400> 32448

```
Trp Ala Gln Gly Asp Val Tyr Val Leu Pro Tyr Tyr Ala Pro Leu Ala
1               5                   10                  15
Gly Ser Val Arg Leu Thr Lys Leu Val Ala Lys Pro Cys Gly His Val
            20                  25                  30
Ile Cys Gln Pro Cys Val Thr Lys Phe Met Thr Pro His Asp Val Pro
```

```
        35                  40                  45
Asp Pro His Ala Ser Lys Glu Glu Gln Glu Arg Thr Ala Lys Leu His
    50                  55                  60
Gly Leu Ile Leu Cys Tyr Val Cys Glu Ala Asp Ile Thr Pro Arg Asp
65                  70                  75                  80
Pro Lys Ala Glu Ala Asp Glu His Gly Thr Glu Lys Gly Asn Gly Lys
                85                  90                  95
Lys Ser Lys Lys Lys Asp Lys Glu Gln Gly Ile Pro Ser Ser Pro Arg
            100                 105                 110
Thr Gly Arg Ser Ala Ser
        115
```

<210> 32449
<211> 123
<212> PRT
<213> A.fumigatus

```
<400> 32449
Ser Gly Arg Arg Tyr Leu Gly Cys Ser Cys Arg Gly Phe Gly Val His
1               5                   10                  15
Leu Ala Asn Trp Val Gln Ser Glu Ser Ser Lys Ser Ala Leu Pro Ser
            20                  25                  30
Leu Trp Val Pro Ser Leu Thr Pro Ser Thr Asp Pro Asn Glu Ile Ala
        35                  40                  45
Ala Asn Lys Ala Val Lys Met Thr Pro Ile Cys Pro Gly Ser Thr Asp
    50                  55                  60
Glu Asn Arg His Ala Tyr Ser Leu Lys Ser Leu Val Asp Val His Phe
65                  70                  75                  80
Thr Glu Glu Lys Ala Ala Asp Gly Thr Val Ser Arg Ile Cys Pro Ser
                85                  90                  95
Cys Asn Lys Asn Leu Ser Asn Gly Leu Lys Ala Met Cys Met Tyr Cys
            100                 105                 110
Pro Thr Thr Arg His Ser Arg Ala Gln Phe Gly
        115                 120
```

<210> 32450
<211> 538
<212> PRT
<213> A.fumigatus

```
<400> 32450
Arg Tyr Lys Ser Pro Leu Ala Leu Arg Ala Ser Gly Gly Ser Glu Arg
1               5                   10                  15
Gly Arg Lys Pro Arg Pro Pro Glu Asn Leu Arg Arg Met Arg Gly Ser
            20                  25                  30
Ala Ala Lys Gly Gly Gly Val Pro Pro Gly Phe Phe Lys Val Cys Arg
        35                  40                  45
Ile Pro Pro Ala Pro Arg Val Arg Gln Gly Gly Ala Ala Asn Ala Gln
    50                  55                  60
Ile Trp Lys Arg Tyr His Met Ile Ala Leu Gln Pro Glu Asn Ala Lys
65                  70                  75                  80
Val Leu Val Leu Gly Leu Asn Leu Ala Phe Val Asn His Ala Cys Ile
                85                  90                  95
Ala Asn Ala Ser Leu Tyr Tyr Thr Leu Arg Tyr Pro Arg Asp Glu Asn
            100                 105                 110
Gly Glu Glu Asp Lys Ser Leu Pro Pro Lys Ile Gly Arg Ala Val Val
```

```
        115                 120                 125
Arg Ala Ser Arg Asp Ile Arg Pro Gly Glu Glu Ile Thr Val Ala Tyr
    130                 135                 140
Phe Tyr Ala Lys Gly Glu Cys Gly Val Arg Gln Leu Met Ser Ser Met
145                 150                 155                 160
Tyr Cys Lys Phe Trp Cys Val Cys Arg Phe Cys Arg Asp Pro Val Arg
                165                 170                 175
Glu Thr Glu Asn Ala Leu Glu Lys Leu Tyr Thr Leu Glu Thr Ile Phe
            180                 185                 190
Glu Asp Ala Asp Thr Leu Tyr Lys Arg Pro Ala Val Val Phe Lys Asn
        195                 200                 205
Ala Tyr Glu Leu Ile Lys Leu Tyr Glu Arg Leu Lys Ile Ser Asp Thr
    210                 215                 220
Arg Gln Val Gln Val Trp Leu Tyr Cys Ala Val Ile Ala Gly Tyr Asn
225                 230                 235                 240
Cys Asp Leu Gly Arg Ala Met Leu Phe Leu Ile Lys Ala Arg Gly Leu
                245                 250                 255
Val Leu Ile Leu His Gly Pro Asn Gly His Leu Tyr Asp Arg Ile Arg
            260                 265                 270
Val Tyr Cys Gln Met Pro Pro Leu Met Pro Gly Phe Gly Thr Thr Thr
        275                 280                 285
Arg Gly Arg Ser Ala Val Lys Gln Cys Tyr Phe Met Phe Ala Asp Gln
    290                 295                 300
Lys His Ser Ala Asp Val Leu Phe Met Leu Thr Ala Lys Pro Asp Glu
305                 310                 315                 320
Tyr Ile Arg Leu His Arg Tyr Arg Arg Ile Pro Asp Arg Leu Ala Lys
                325                 330                 335
Pro Gly Glu Ser Arg Tyr Leu Ile Arg Tyr Asp Ala Gln Asp Ala Arg
            340                 345                 350
Arg Lys Lys Phe Glu Asp Glu Glu Pro Asp Pro Val Glu Phe Ile Pro
        355                 360                 365
Trp Trp Tyr Asp Ala Glu Val Arg Lys Gln Ile Ile Glu Glu Lys Thr
    370                 375                 380
Ala Lys Glu Ala Glu Arg Lys Glu Glu Arg Lys Lys Thr Ala Arg Lys
385                 390                 395                 400
Lys Lys Arg Glu Glu Gln Lys Arg Lys Glu Thr Thr Ile Thr Asn Pro
                405                 410                 415
Asp Cys Ile Glu Pro Glu Lys Asp Phe Leu Asp Val Cys Arg Glu Leu
            420                 425                 430
Val Ala Glu Phe Glu Ala His Asp Lys Gln Lys Pro Glu Pro Gln Gln
        435                 440                 445
Arg Glu Leu Arg Glu Arg Asn Arg Asp Ala Leu Gln His Leu Leu Gly
    450                 455                 460
Ala Arg Asn Glu Pro Lys Lys Arg Ala Asp Glu Glu Asp Lys Gly Glu
465                 470                 475                 480
Ser Lys Gln Glu His Glu Thr Leu Gly Gly Pro Trp Thr Gln Val Ser
                485                 490                 495
Pro His Glu His Glu Pro Val Pro Ser Gln Pro Ala Val His Gln Val
            500                 505                 510
Ala Ala Arg Lys Arg Val Val Leu Glu Thr Pro Pro Val Arg Pro Glu
        515                 520                 525
Thr Glu Lys Tyr Ala Pro Val Glu Leu Cys
    530                 535
```

<210> 32451
<211> 116

<212> PRT
<213> A.fumigatus

<400> 32451
Asp Thr Lys Met Ala His Ser Asn Asp Leu Gln Val Leu Pro Pro Ser
1 5 10 15
Ala Gly Tyr Gly Ile Val Ile Gly Ile Gly Gly Ile Phe Ala Leu Phe
20 25 30
Met Leu Gly Leu Thr Trp Leu Gln Asn Arg Tyr Thr Thr Phe Ser Thr
35 40 45
His Gln Ala Glu Glu Phe Asn Thr Ala Ser Arg Ser Val Lys Pro Gly
50 55 60
Leu Ile Ser Ala Gly Ile Val Ser Ser Trp Thr Trp Ser Ala Thr Leu
65 70 75 80
Leu Thr Ser Ser Thr Phe Ala Tyr Ser Tyr Gly Val Cys Gly Pro Met
85 90 95
Trp Tyr Ala Ala Met Gly Thr Leu Gln Ile Leu Leu Phe Ala Leu Ile
100 105 110
Ala Ile Lys Ile
115

<210> 32452
<211> 105
<212> PRT
<213> A.fumigatus

<400> 32452
Ile Pro Ala Phe Pro Ser Pro Glu Ser Ile Gln Ile Ile Arg Ser Asn
1 5 10 15
His Gln Asn Asn Gln His Thr Ser Ile Ser Tyr Phe Asn Gln Leu Lys
20 25 30
Met Pro Ala Asn Gln Asn Pro Gly Asn Phe Ala Asn Arg Pro Gln Glu
35 40 45
Glu Val Glu Ser Ile Ala Arg Lys Gly Gly Gln Ser Ser His Gln Gly
50 55 60
Gly Phe Ala Ser Met Asp Pro Arg Lys Gln Val Arg Leu His Asn Gly
65 70 75 80
Leu Cys Thr Leu Thr Ser Pro Thr Asp Val Phe Thr Glu Arg His Arg
85 90 95
Phe Gln Gly Trp Pro Arg Leu Gln Arg
100 105

<210> 32453
<211> 67
<212> PRT
<213> A.fumigatus

<400> 32453
Leu Val Leu Ser Asn Asp Gln Leu Phe Asn Ile Lys Leu Ser Ser Val
1 5 10 15
Pro Gly Phe Trp Asn Leu Glu Phe Tyr Trp Trp Tyr Gly Leu Leu Leu
20 25 30
Pro Ser Asn Ser Asp Gln His Ser Ala Leu Ala Phe Ala Gly Arg Thr
35 40 45
Leu Ser Ile Ser Thr Pro Gln Tyr Glu Arg Leu Ser Gly Arg Ala Val
50 55 60

Ala Val Gln
65

<210> 32454
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32454
Ala Phe Ile Ser Phe Gly Asn Phe Tyr Arg Arg Phe Ile Lys Asp Phe
1 5 10 15
Leu Arg Ile Ile Ala Pro Leu Val Asn Leu Thr Arg Lys Asp Val Pro
20 25 30
Phe Ile Trp Thr Thr Ala Cys Lys Leu Ser Phe Lys Ala Leu Lys Lys
35 40 45
Ala Phe Ile Asn Thr Pro Ile Leu Lys Leu Phe Asn
50 55 60

<210> 32455
<211> 76
<212> PRT
<213> A.fumigatus

<400> 32455
Tyr Asn Asn Lys Gly Val Leu His Pro Ile Ala Phe Phe Ser Lys Lys
1 5 10 15
Leu Ser Val Thr Glu Cys Asn Tyr Glu Ile Tyr Asp Lys Glu Leu Leu
20 25 30
Thr Ile Ile Arg Cys Phe Lys Glu Trp Arg Pro Glu Leu Glu Gly Thr
35 40 45
Pro Ser Leu Ile Lys Val Ile Thr Asn His Cys Asn Leu Glu Tyr Phe
50 55 60
Met Ser Thr Lys Leu Leu Asn Arg Gln Gln Ala Tyr
65 70 75

<210> 32456
<211> 69
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (34)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32456
Ser Glu Phe Leu Ser Arg Phe Asn Phe Lys Ile Ile Tyr Gln Pro Gly
1 5 10 15
Lys Gln Gly Val Lys Pro Asp Ala Leu Thr Arg Arg Ser Glu Asp Leu
20 25 30
Pro Xaa Glu Glu Asp Lys Arg Leu Gln His Gln Ser Gln Thr Ile Leu
35 40 45
Lys Lys Glu Asn Leu Asp Pro Glu Ile Gln Asn Ser Val Lys Leu Gly
50 55 60
Ala Ile Thr Asn Ser
65

<210> 32457
<211> 61
<212> PRT
<213> A.fumigatus

<400> 32457
Trp Asn Leu Ala Val Ile Leu Pro Gln Ser Gln Arg Lys Met Cys Val
1 5 10 15
Ser Ala Ile Leu Gly Lys Pro Arg Met Tyr Trp Thr Phe Val Ala Phe
20 25 30
Leu Ile Phe Ser Asp Thr Asn Gly Asp Ser Asn Asn Asn Arg Asp Ile
35 40 45
Glu Glu His Asp Arg Leu Ala Met Asp Thr Pro Leu Leu
50 55 60

<210> 32458
<211> 84
<212> PRT
<213> A.fumigatus

<400> 32458
Asp Tyr Pro Ser Cys Thr Ser Leu Cys Val Ala Pro Leu Ala Val Tyr
1 5 10 15
Ser Cys Pro Ser Cys Pro Leu Thr Leu Ala Arg Phe Ala His Gln Leu
20 25 30
Pro Phe Tyr Gly Leu Ile Cys Phe Ala Cys Tyr Leu Gly Gly Arg Leu
35 40 45
Gly Leu Ala Ile Leu Thr Phe Asn Asp Cys Pro Glu Ala His Lys Glu
50 55 60
Leu Gln Lys Glu Ile Glu Gln Ala Lys Ala Asp Leu Arg Ser Lys Asn
65 70 75 80
Val Asp Val Asp

<210> 32459
<211> 208
<212> PRT
<213> A.fumigatus

<400> 32459
Phe Ser Gly Asp Val Thr Ala Ser Val Ala Ser Asn Cys Leu Val Ile
1 5 10 15
Asp Phe Ser Arg Phe Thr Gly Cys Asp Gly Ser Asn Gly Thr Lys Ala
20 25 30
Ala Pro Ser Leu Leu Ile Ala Ser Met Ala Thr Ile Ala His Glu Asp
35 40 45
Leu Gln Lys His Thr Gly Ile Arg Ser Pro Gly Cys Thr Pro Asp Pro
50 55 60
Arg Arg Arg Tyr Ala Thr Phe Lys Glu Ser Val Ser Ser Ser Leu Tyr
65 70 75 80
Glu Ser Ala Arg Ser Ala Ala Met Thr Ala Gly Trp Cys Arg Arg Ser
85 90 95
Val Ala Arg Ser Trp Thr Thr Trp Cys Ile Ala Leu Asn Leu Gly Trp
100 105 110
Thr Lys Ala Arg Ser Phe His Phe Pro Ile Trp Ser Asn Cys Leu Arg

```
        115                 120                 125
Leu Thr Lys Gln Ile Ser Leu Arg Gly Ile Pro Leu Pro Ala Leu Ala
    130                 135                 140
Ser Ser Thr Thr Ser Ser Lys Glu Asp Phe Arg Cys Val Ala Trp Ile
145                 150                 155                 160
Ser Val Ser Thr Val Val Leu Tyr Ala Arg Lys His Phe Arg Gln Leu
                165                 170                 175
Glu Ser Arg Ser Ser Ser Arg Thr Asn Ser Thr Leu Gln Ala Phe Ile
            180                 185                 190
Arg Ser Gly Gln Pro Phe Ile Arg Gly Glu Ser Val Arg Ser His His
        195                 200                 205
```

<210> 32460
<211> 730
<212> PRT
<213> A.fumigatus

<400> 32460

```
Pro Asp Arg Met Lys Ala Cys Asn Val Leu Leu Val Leu Glu Leu Asp
1               5                   10                  15
Leu Asp Ser Asn Trp Arg Lys Cys Phe Leu Ala Tyr Lys Thr Thr Val
            20                  25                  30
Leu Thr Asp Ile Gln Ala Thr His Leu Lys Ser Ser Phe Glu Glu Val
        35                  40                  45
Val Glu Leu Ala Arg Ala Gly Arg Gly Ile Pro Leu Ser Glu Ile Cys
    50                  55                  60
Leu Val Ser Arg Arg Gln Leu Asp Gln Ile Gly Lys Trp Asn Glu Arg
65                  70                  75                  80
Ala Leu Val Gln Pro Lys Phe Lys Ala Met His Gln Val Val His Asp
                85                  90                  95
Arg Ala Thr Asp Arg Arg His His Pro Ala Val Ile Ala Ala Asp Arg
            100                 105                 110
Ala Leu Ser Tyr Ser Glu Leu Glu Thr Leu Ser Leu Lys Val Ala Tyr
        115                 120                 125
Arg Leu Arg Gly Ser Gly Val Gln Pro Gly Asp Leu Ile Pro Val Cys
    130                 135                 140
Phe Cys Lys Ser Ser Trp Ala Ile Val Ala Met Leu Ala Ile Asn Lys
145                 150                 155                 160
Leu Gly Ala Ala Phe Val Pro Leu Asp Pro Ser Gln Pro Val Asn Arg
                165                 170                 175
Leu Lys Ser Ile Thr Arg Gln Leu Asp Ala Thr Leu Ala Val Thr Ser
            180                 185                 190
Pro Glu Asn Gln Ser Leu Val Glu Asp Leu Val Thr Thr Thr Val Val
        195                 200                 205
Val Ser Glu Thr Thr Val Ser Glu Leu Val Asp Val His Asn Glu Ile
    210                 215                 220
Val Leu Pro Ala Cys Asp Pro Gly Ala Pro Ala Tyr Cys Leu Phe Thr
225                 230                 235                 240
Ser Gly Ser Thr Gly Lys Pro Lys Gly Cys Val Val Asp His Ala Ala
                245                 250                 255
Leu Ala Ser Val Ala Thr His Ser His Ala Leu His Leu Gly Pro Thr
            260                 265                 270
Ser Arg Val Leu Gln Phe Ala Ser Phe Thr Phe Gly Val Ser Leu Ile
        275                 280                 285
Glu Val Trp Cys Thr Leu Ala Ala Gly Gly Thr Val Cys Leu Pro Ser
    290                 295                 300
```

```
Asp Ser Asp Arg Val Ser Arg Leu Ala Asp Ala Ile Arg Ser Met Gly
305                 310                 315                 320
Val Asp Trp Cys Ile Leu Thr Pro Thr Val Leu Ala Thr Leu Glu Pro
                325                 330                 335
Glu Ala Val Pro Asn Leu Arg Thr Ile Leu Val Ala Gly Glu Pro Leu
            340                 345                 350
Lys Lys Ala Gln Phe Ser Leu Trp Ala Glu Arg Ala Arg Leu Phe Gln
        355                 360                 365
Ala Tyr Gly Phe Thr Glu Trp Ala Gly Ile Cys Cys Val Ser Pro Gln
    370                 375                 380
Ile Arg Ser Ile Gly Asp Val Gly Ile Ile Gly Thr Pro Ala Asn Ala
385                 390                 395                 400
Arg Cys Trp Leu Val Glu Pro Gly Asn Pro Asn Gln Leu Ala Pro Ile
                405                 410                 415
Gly Ala Val Ala Glu Leu Ala Val Glu Gly Pro Ser Leu Ala Gln Gly
            420                 425                 430
Tyr Leu His Asp Pro Glu Lys Thr Ala Ala Thr Leu Ile Pro Pro Pro
        435                 440                 445
Arg Trp Arg Ala Gln Tyr Gly His Ala Asp Gly Lys Arg Ile Tyr Thr
    450                 455                 460
Thr Gly Asp Leu Val Tyr Tyr Asp Ser Asn Gly Met Leu Arg Tyr Val
465                 470                 475                 480
Ser Arg Lys Asp Arg Gln Val Lys Ile Arg Gly Gln Arg Ile Asp Leu
                485                 490                 495
Ala Glu Pro Glu Tyr His Ile Ala Gln Ala Cys Cys Thr Ile Arg Asn
            500                 505                 510
Val Val Leu Asp Ala Ile Val Pro Ala Asp Ser Asn Gly Asp Ala Ile
        515                 520                 525
Leu Val Ala Phe Val Leu Pro Ser Arg Asp Glu Ser Ser Ser Asn Gly
    530                 535                 540
Gly His Asp Ser Pro Leu Phe Ala Val Pro Asp Asp His Phe Thr Ser
545                 550                 555                 560
Ser Val Arg Gln Leu Thr Ser Phe Leu Glu Asp Lys Leu Pro Asp Tyr
                565                 570                 575
Met Val Pro Arg Leu Phe Leu Gln Leu Lys Glu Thr Pro Val Thr Ile
            580                 585                 590
Thr Gly Lys Ile Ala Arg Gln Lys Leu Arg Glu Ala Ala Glu Ala Leu
        595                 600                 605
Arg His Asp Glu Leu Val Ala Leu Ala Gly Leu Glu Thr Arg Val Leu
    610                 615                 620
Pro Pro Asn Thr His Lys Glu Thr Leu Ile His Gln Leu Val Val Glu
625                 630                 635                 640
Leu Leu His Leu Pro Pro Glu Met Val Gly Met Asn His Asn Phe Phe
                645                 650                 655
Ser Leu Gly Gly Asp Ser Val Ser Val Met Lys Leu Val Ser Arg Ala
            660                 665                 670
Lys Arg Val Gly Leu Ser Phe Thr Val Lys Asp Val Phe Arg Ser Pro
        675                 680                 685
Gln Leu Gly Asp Leu Ala Arg Leu Thr Asp Val Val Asn Ser Gly Ala
    690                 695                 700
Ala Gln His Met Pro Pro Phe Ser Leu Leu Asp Arg Gly Ala Gln Pro
705                 710                 715                 720
Gly Leu Leu Ser Met Ala Ala Lys Ile Cys
                725                 730
```

<210> 32461

<211> 64
<212> PRT
<213> A.fumigatus

<400> 32461
Gly Lys His Gly Ala Trp Ala Gly Arg Val Ser Ile Ile Ser Lys Gly
1 5 10 15
Val Tyr Ile Met Asp Arg Tyr Ala Thr Lys Gly Lys Asp Asp Tyr Ser
20 25 30
Ser Glu Thr Ser Ser Glu Gly Lys Leu Ile Val Asp Trp Phe Arg Cys
35 40 45
Phe Cys Tyr Phe Pro Thr Met Arg Ala Asp Met Cys Gly Ala Ala Gln
50 55 60

<210> 32462
<211> 489
<212> PRT
<213> A.fumigatus

<400> 32462
Trp Leu Glu Asp Glu Arg Ser Pro Val Thr Asn Leu Thr Asp Thr Asn
1 5 10 15
Thr Gln Ile Gln Ala Ile Leu Thr Arg Glu Ser Leu Glu Glu Tyr Ser
20 25 30
Arg Asp Tyr Pro Asp Gln Lys Leu Lys Lys Gly Gly Met Pro Gly Tyr
35 40 45
Thr Ile Asn Leu Leu Asp Phe Glu Leu Val Phe Glu Tyr Thr Thr Ala
50 55 60
Glu Pro Lys Ile His Leu Tyr Val Lys Arg Phe Ser Ile Ala Trp Asp
65 70 75 80
Lys Ser Arg Leu Arg Arg Pro Pro Gln Gly Lys Lys Ile Arg Asn Lys
85 90 95
Arg Glu Val Tyr Ala Leu Met Arg Ser Ala Leu Gln Met Ala Lys Ser
100 105 110
Arg Glu Thr Ala Thr Thr Asp Ser Ser Gly Asn Gly Ser His Ser Asp
115 120 125
Glu Ser Ile Lys Ser Gln Asp Gly Glu Thr Asp Glu Ile Asn Asp Ser
130 135 140
Gln Asn Gln Leu Met Ser Gln Met Pro Pro Lys Gln Pro Val Glu Leu
145 150 155 160
Phe Ala Ser Ala Phe Ala Ser Ala Lys Thr Leu Leu Gly Ser Leu Lys
165 170 175
Pro Ser Ala Arg Pro Ser Gln Asp Ser Gln Gln Lys Lys Asp Asn Asp
180 185 190
Thr Asp Ile Val Ala Ser Gly Arg Asp His His Ala Leu Asp Glu Ala
195 200 205
Thr Lys Glu Pro Asn Ile Asn Arg Cys Ala Ala His Ile Asp Glu Leu
210 215 220
Ser Ala Gly Pro Ser Val Val Gly Pro Arg Gln Asn Gly Asn Ala Thr
225 230 235 240
Val Arg Glu Ser Asp Gln Thr Asp Thr Asp Thr Ala Gly Glu Val Pro
245 250 255
Ala Lys Thr Arg Ser Gly Lys Gly Pro Ser Asp Thr Lys Thr Gln Glu
260 265 270
Arg Thr Leu Thr Asp Tyr Asn Lys Glu Pro Asp His Ala Val Asn Ile
275 280 285

```
Gly Thr Val Ser Lys Glu Ile Val Gln Lys Asn His Leu Glu Gln Val
    290                 295                 300
Asp Pro Ala Val Glu Thr Ile Leu Thr Glu Val Asp Asn Ser Asn Ala
305                 310                 315                 320
Asp Pro Trp Asp Gly Met Thr Glu Ile Arg Thr Glu Asp Ile Ala Ile
                325                 330                 335
Pro Lys Asp Gln Ala Asn Leu Leu Asp Glu Gln Ala Lys Leu Cys Trp
            340                 345                 350
Leu Pro Pro Ala Pro Gly Gln Gly Tyr Pro Gln Pro Asn Val Pro Pro
        355                 360                 365
Leu Leu Leu Gln Gln Trp Asn Glu Ile Ala Leu Gln Arg Ser Ile Arg
    370                 375                 380
Ala Glu Glu Arg Lys Ile Lys Glu Leu Glu Thr Leu Glu Leu Gln Gly
385                 390                 395                 400
Ser Arg Pro Ser Ser Ser Asp Ala Ser Ser Ser Thr Asp Ser Ala Tyr
                405                 410                 415
Glu Thr Pro Ser Gly Asp Arg Ile Glu Trp Ser Gln Ser Pro Pro Arg
            420                 425                 430
Gly Arg Asp Leu Pro Val Asp Ser Ser Pro Pro Glu Ala Arg Pro Val
        435                 440                 445
Glu Arg Pro Ile Val Tyr Lys Gly Asn Gly Gly Asn Gly Pro Ser Asn
    450                 455                 460
Gln Pro Phe Arg Asp Ala Glu Glu Glu Gln Arg Ala Ser Val His His
465                 470                 475                 480
Glu Ile Ser His Glu Gln Glu Glu Leu
                485
```

<210> 32463
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32463

```
Trp His Arg Asn Gly Leu Ala Ile Val Phe Trp Ser Gln Ser Thr Ile
1               5                   10                  15
Ile Asp Ser Gly Gln Tyr Pro Ser Tyr Leu Ser Met Ile Pro Phe Met
            20                  25                  30
Leu Asp Ala Val Pro Arg Val Gly Pro Pro Thr Phe Ser Gly Asn Leu
        35                  40                  45
Asn Arg His Lys Val Pro Gln Pro His Pro Arg His Trp Ala Ala Pro
    50                  55                  60
His Met Ser Ala Arg Ile Val Gly Lys
65                  70
```

<210> 32464
<211> 416
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (416)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32464

```
Met Ala Tyr Gln Gln Ser Gln Gly Thr Ser Ser Pro Ser Ala Ser Ser
```

```
1               5                   10                  15
Ile Phe Leu Pro Leu Gly Arg Arg Gly Ser Arg Ala Ser Val Ser Ser
            20                  25                  30
Gln Ala Glu Arg Glu Ser Leu Asn Ala Ala Leu Asp Gln Ile His Thr
        35                  40                  45
Ala Ala Tyr Gln Ser Asp Ser Leu Thr Val Phe Asn Asp Phe Thr Thr
    50                  55                  60
Pro Pro Val Pro Ala Ser Ala Thr Glu Glu Lys Asn Leu Ser Ala Glu
65                  70                  75                  80
Leu Gln Gly Gly Leu Ser Gly Leu Tyr Ser Arg Phe Arg Thr Ser Val
                85                  90                  95
Gly Gly Met Arg Asp Ile Val Ser Gly Val Gly Lys Ala Ser Asp Lys
            100                 105                 110
Ser Ala Pro Asp Gly Pro Ala Met Lys Ser Pro Pro Ser Glu Arg Ser
        115                 120                 125
Val Ser Lys Phe Ala Ala Asp Ser Thr Gly Pro Leu Ala Glu Ala Gln
    130                 135                 140
Gln Ser Asn Pro Ser Ser Ser Gln Gly Phe Arg Leu Gln Ser Pro Thr
145                 150                 155                 160
Pro Gly Ser Ser Gln Asn Thr His Glu Leu Pro Thr Gly Lys Ala Ser
                165                 170                 175
Lys Leu Ser Ser Lys Ala Ala Ser Ile Ser Ser Lys Ala Ser Val Ser
            180                 185                 190
Pro Ser Pro Thr Leu Lys Ser Pro Thr Val Pro Leu Pro Lys Ser Thr
        195                 200                 205
Ser Asn Ala Ala Thr Val Asp Pro Thr Val Thr Glu Leu His Val Ser
    210                 215                 220
Ala Val Lys Glu Pro Thr His Tyr Ser Ser Asn Thr Ser Val Asn Val
225                 230                 235                 240
Ser Ser Ser Ser Leu Gln Thr Val Gly Ser Thr Gly Ala Glu Arg Glu
                245                 250                 255
Glu Asn His Tyr Val Pro Ser Met Ser Ser Ser Gly Phe Ser Glu Arg
            260                 265                 270
Leu Thr His Ser Pro Ala Leu Ser Ala Lys Ala His Asn Pro Pro Asn
        275                 280                 285
Glu Gly His Ala Ala Leu Asp Ser Ser Asn Lys Ser Lys Leu Thr Ser
    290                 295                 300
Gln Pro Ser Asp Ser Thr Lys Arg Leu Glu Arg Arg Thr Ser His Asp
305                 310                 315                 320
Leu Glu Pro Ser Leu Thr Ala Pro Leu Gln Met Thr Lys Asn Thr Thr
                325                 330                 335
Gln Gly Glu Ser Glu Gly Thr Ser Pro Ala Gln Asp Arg Ile Arg Ser
            340                 345                 350
Asn Ser Ala Thr Ser Phe Gly Leu Asp Arg Ala Ser Val Thr Ala Ser
        355                 360                 365
Ser Gly Ala Thr Ser Val Ser Gln Leu Pro Ser Asn Lys Ala Gly Thr
    370                 375                 380
Leu His Asp Ser Gln Gly Pro Ser Thr Ser Ala Thr Ser Leu Ser Leu
385                 390                 395                 400
Met Asp Gly Asn Pro Lys Leu Asp Ala Ser Pro Lys Gly Pro Phe Xaa
                405                 410                 415
```

<210> 32465
<211> 148
<212> PRT
<213> A.fumigatus

<400> 32465
Leu Arg Gly Arg Met Tyr Met Leu Ala Ile His Ser Asp Leu Cys Leu
1 5 10 15
Gln Thr Leu Ile Ala Trp Ser Gln Thr Tyr Lys Ala Met Glu Lys Leu
20 25 30
Leu Ser Thr Gly Lys Thr Lys Ala Ile Gly Val Ser Asn Phe Ser Lys
35 40 45
Ala Glu Met Glu Arg Leu Val Gln Asn Thr Ser Val Val Pro Ala Val
50 55 60
His Gln Leu Glu Gly His Pro Trp Leu Gln Gln Arg Ser Phe Val Asp
65 70 75 80
Leu His Lys Ser Lys Gly Ile His Val Thr His Tyr Ser Pro Phe Gly
85 90 95
Asn Gln Asn Glu Ile Tyr Ser Ser Lys Val Gln Ile Gly Lys Leu Ile
100 105 110
Asp Glu Pro Val Leu Ala Glu Ile Gly Lys Lys Tyr Asn Lys Ser Ser
115 120 125
Ala Gln Val Ala Leu Gly Lys Phe Ser Cys Arg Pro Ile Gln Ala Gly
130 135 140
Asn Asn Val Tyr
145

<210> 32466
<211> 187
<212> PRT
<213> A.fumigatus

<400> 32466
Tyr Ile Tyr Ser Ile Leu Ala Val Ile Gly Phe Gly Phe His Lys Val
1 5 10 15
Gln Pro Asn His Arg Pro Phe Ser Leu Thr Asp Pro Ser Ile Ser Phe
20 25 30
Pro Tyr Thr Glu His Glu Thr Val Ser Thr Ala Val Leu Met Val Val
35 40 45
Ala Leu Ile Ala Pro Ala Val Ile Ile Val Ile Thr Ala Leu Leu Ile
50 55 60
Pro Met Ser Thr Lys Asp Gln Asn Val Pro Arg Ser Ser Leu Trp Arg
65 70 75 80
Tyr Lys Leu Trp Glu Trp Asn Ala Gly Trp Met Gly Leu Ala Val Ala
85 90 95
Cys Ala Trp Ala Trp Met Ala Thr Glu Gly Leu Lys Asp Leu Tyr Gly
100 105 110
Arg Pro Arg Pro Asp Met Leu Ala Arg Cys Asn Pro Asp Leu Ser Asn
115 120 125
Ile Ala Thr Tyr Ala Val Gly Gly Leu Gly Glu Asn Leu Ala Gly Ala
130 135 140
Pro Thr Met Val Thr Trp Lys Ile Cys Gln Asn Lys Ser Lys Val Leu
145 150 155 160
Ala Asn Asp Gly Phe Ala Ser Phe Pro Ser Gly His Ser Ser Cys Lys
165 170 175
Trp Leu Met Ser Ala Pro Glu Gly Leu Gln Tyr
180 185

<210> 32467
<211> 162

<212> PRT
<213> A.fumigatus

<400> 32467
His Leu Ala Val Ser Phe Ala Gly Leu Thr Tyr Leu Thr Leu Trp Leu
1 5 10 15
Cys Ser Lys Leu Ser Ile Ala Phe Pro Tyr Leu Gly His Ser Leu Leu
20 25 30
Asn Gln Asn Pro Ile Gly Pro Ile Asn Gly Ser Ile Arg Lys Arg Gly
35 40 45
Ala Ala Pro Pro Val Tyr Met Leu Val Val Ala Phe Val Pro Ile Ala
50 55 60
Val Ala Ser Phe Ile Gly Ala Ser Arg Trp Phe Asp Tyr Arg His His
65 70 75 80
Ala Phe Asp Ile Leu Phe Gly Ser Ile Met Gly Ala Ile Phe Ala Trp
85 90 95
Ile Gly Phe Arg Met Tyr His Leu Pro Ile Thr Arg Gly Glu Gly Trp
100 105 110
Ser Trp Ala Ala Arg Ser Arg Arg His Ala Phe Phe Lys Ser Pro Arg
115 120 125
Phe Pro Ser Glu Ala Asp Glu Arg Arg Pro Ile Asp Thr His Asp Thr
130 135 140
Gln Lys Thr Thr Arg Gln Asp Ile Asp Val Glu Arg Ala Ala Glu Asn
145 150 155 160
Leu Val

<210> 32468
<211> 84
<212> PRT
<213> A.fumigatus

<400> 32468
Thr Asn Ser Ser Trp Lys Gln Cys Leu Leu Thr Val Ile Ala Tyr Ser
1 5 10 15
Ala Trp Gly Val Thr Gln Gly His Ser Val Leu Pro Lys Ser Lys Thr
20 25 30
Pro Ser Arg Ile Lys Ala Asn Leu Glu Gly Asp Phe His Leu Ser Asp
35 40 45
Glu Asp Met Lys Lys Ile Gln Gly Ile Asp Lys Lys Leu Arg Phe Asn
50 55 60
Asp Ser Ser Ala Asp Phe Gly Arg Asp Phe Phe Thr Asp Leu Glu Gly
65 70 75 80
Lys Gly Ser Val

<210> 32469
<211> 390
<212> PRT
<213> A.fumigatus

<400> 32469
Cys Thr Gly Pro Arg Arg Thr Glu Ala Thr Thr Trp Leu Asp Phe Gln
1 5 10 15
Leu Val Phe Glu Leu Arg Phe Gln Arg Val Asn Ile Ala Asn Ile Asp
20 25 30

```
Ala Asn Leu Arg Lys Ala Leu Ser Pro Leu Ala Ala Lys Ala Cys Lys
        35                  40                  45
Ile Val Ser Lys Ile Arg Ala Arg Glu Leu Glu Thr Val Trp Ser Lys
    50                  55                  60
Gly Ser Thr Gln Glu Gln Ala His Gly Ala Asp Glu Ile Leu Tyr Pro
65                  70                  75                  80
Gly Val Met Phe His Leu Ala Arg Gly Arg Met Glu Asn Thr Asp Leu
                85                  90                  95
Trp Lys Ile Val Gln Lys Met Pro Lys Gly Ser Leu Leu His Ala His
            100                 105                 110
Met Asp Ala Met Phe Asp Ile Asp Phe Leu Val Asp Gln Ala Phe Ser
        115                 120                 125
Thr Pro Gly Met His Ile Phe Ala Pro Gln Pro Leu Ile Thr Ala Lys
    130                 135                 140
Glu Leu Glu Glu Ala Pro Phe Tyr Leu Arg Phe Ser Ser Gln Pro Leu
145                 150                 155                 160
Glu Glu Ser Glu Asp Lys Pro Thr Met Trp Thr Ser Ser Tyr Glu Ser
                165                 170                 175
Ser Arg Leu Val Ser Leu Gln Lys Ala Ala Ser Ser Phe Pro Lys Gly
            180                 185                 190
Gly Glu Ala Gly Phe Arg Glu Trp Leu Lys Ser Arg Cys Val Leu Gly
        195                 200                 205
Pro Glu His Ser Tyr Leu His His His Gly Val Asp Ala Ile Trp Asp
    210                 215                 220
Ile Phe Arg Arg Thr Phe Pro Val Ile Asn Ser Ile Leu Asn Tyr Glu
225                 230                 235                 240
Pro Ile Phe Arg Ala Cys Leu Arg Arg Met Phe Glu Gln Leu Ala Ser
                245                 250                 255
Asp Gly Ile Arg Tyr Val Asp Phe Arg Ile Ala Phe Val Phe Glu Tyr
            260                 265                 270
Arg Arg Glu Gly Arg Asp Thr Pro Glu Glu Gly Tyr Phe Glu Trp Cys
        275                 280                 285
Arg Val Phe Lys Glu Glu Leu Glu Arg Phe Lys Asn Thr Glu Gln Gly
    290                 295                 300
Arg Arg Phe Tyr Gly Ala Arg Ile Ile Trp Thr Thr Leu Arg Asn Phe
305                 310                 315                 320
Pro Asn Lys Asp Ile Ala Ala Ser Met Lys Gln Cys Ile Glu Thr Lys
                325                 330                 335
Leu Ala Phe Pro Asp Val Ile Cys Gly Phe Asp Val Val Gly Gln Glu
            340                 345                 350
Asp Gln Gly Arg Pro Leu Val Asp Leu Val Pro Val Leu Phe Trp Phe
        355                 360                 365
Arg Lys Arg Cys Val Glu Glu Gly Val Thr Ile Pro Phe Phe Phe His
    370                 375                 380
Ala Gly Glu Cys Leu Gly
385                 390
```

<210> 32470
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32470

```
Leu Gln Asn Leu Gly Trp Gln Lys Trp Asp Ser His Asp Leu Ala Gln
1               5                   10                  15
Pro Glu Ala Asn Val Leu Gly Ser Arg Tyr Ser Val Ile Glu Leu Ala
```

```
            20                  25                  30
Gly Leu Glu His Thr Phe Tyr Asn Lys Ala Ser Leu Glu Leu Arg Val
        35                  40                  45
Met Gly Gln Arg Ile Ser Arg Asp Leu Thr Ala Gln
    50                  55                  60

<210> 32471
<211> 68
<212> PRT
<213> A.fumigatus

<400> 32471
Asp Asn His Pro Gln Met Gln Ala Met Trp Thr Asp Arg Asn Val Glu
1               5                   10                  15
Leu Glu Glu Pro Glu Ile Tyr Val Val Phe Arg Val Tyr Tyr Leu Gly
            20                  25                  30
Lys Glu Asn Met Gly Leu Lys Val Tyr Val Asp Pro Glu Arg Leu Arg
        35                  40                  45
Gln Glu Glu Arg Leu Ile Phe Ser Pro Glu Ser Tyr Ser Val Tyr Pro
    50                  55                  60
Ser Leu Val Ala
65

<210> 32472
<211> 103
<212> PRT
<213> A.fumigatus

<400> 32472
Gly Ile Leu Asp Leu Val Ser Leu Arg Lys Cys Val Trp Asn Gly His
1               5                   10                  15
Pro Ser Leu Arg Thr Lys His Pro Leu Ala Thr His Pro Glu Tyr Ser
            20                  25                  30
Asn Asp Pro His Val Ala Cys Leu Phe Arg Asp Ile Leu Ser Val Arg
        35                  40                  45
Asp Ala Asp Val Ser Thr Tyr Val Glu Glu Leu Gln Trp Arg Lys Asp
    50                  55                  60
Asn Ala Asp Val Gly Leu Asp Asp Leu Lys Ala Ile Tyr Asn Cys Ile
65                  70                  75                  80
Leu Gln Asn Ile Gln Asn Pro Glu Asp Gly Ala Met Ile Leu Tyr Glu
                85                  90                  95
Leu Cys Met Trp His Glu Gly
            100

<210> 32473
<211> 205
<212> PRT
<213> A.fumigatus

<400> 32473
Gly Thr Met Pro Ser Arg Arg Ser His Ser Lys Ser His His Gly Cys
1               5                   10                  15
Thr Gln Cys Lys Gly Arg Gln Ile Lys Cys Asp Glu Val Arg Pro Ile
            20                  25                  30
Tyr Gly Ser Cys Arg Arg Lys Gln Leu Pro Cys Asn Phe Gln Ser Phe
        35                  40                  45
```

```
Ala Pro Gln Thr Ser Pro Gln Pro Ser Ile Ala Asp Ala Ile Leu Gly
    50                  55                  60
His Arg Asp Ser Phe Val Leu Pro Leu Leu Asp Leu Glu Leu Leu His
65                  70                  75                  80
His Trp His Thr Val Thr Gly Asn Tyr Leu Pro Asp Ala Lys Pro Leu
                85                  90                  95
Gln Asp Val Ile Arg Thr Val Met Pro Gln Glu Gly Leu Ala Asn Pro
            100                 105                 110
Phe Leu Met His Ser Ile Leu Ala Val Ser Ala Leu His Arg Ala His
        115                 120                 125
Ser Ala Pro Leu Ser His Arg His Met Tyr Ser Glu Ala Ala Thr Met
    130                 135                 140
His His Ser Arg Ser Leu Ala Leu Cys Thr Pro Leu Phe Lys Asn Ile
145                 150                 155                 160
Thr Arg Gln Asn Cys His Ala Leu Phe Ala Leu Ser Cys Leu Val Pro
                165                 170                 175
Val Phe Val Phe Thr Ser Arg Asn Pro Ser Lys Asn Pro Arg Ile Gln
            180                 185                 190
Ser Leu Thr Ala Val Val Gln Ala Phe Arg Leu Val Arg
        195                 200                 205
```

<210> 32474
<211> 409
<212> PRT
<213> A.fumigatus

<400> 32474

```
Gln Arg Gly Gln Val Ala Glu Thr Lys Met Ala Ile Leu Ser Leu Val
1               5                   10                  15
Ile Leu Gly Gly Leu Cys Leu Ser Thr Ala Ser Gly Gln Ala Pro Thr
            20                  25                  30
Gln Pro Glu Pro Phe Thr Ile Val Glu Leu Pro Leu Pro Pro Val Val
        35                  40                  45
Ser Ser Asn Ala Val Gly Ala Cys Thr Thr Asp Val Asn Pro Arg Arg
    50                  55                  60
Thr Gly Cys Ile Gly Gln Ile Ser Glu Glu Phe Gln Ala Gly Asp Phe
65                  70                  75                  80
Thr Ser Asp Gly Lys His Val Ile Val Asn Val Glu Phe Val Gly Ala
                85                  90                  95
Pro Ala Ala Pro Asp Pro Ala Ser Val Tyr Thr Gly Lys Gln Leu Ile
            100                 105                 110
Leu Val Lys Ala Asp Gly Thr Asn Phe Ser Asn Gly Asp Pro Trp Lys
        115                 120                 125
Cys Leu Ser Cys Gly Val Pro Ala Ala Asn Ala Arg Ser Leu Asp Ser
    130                 135                 140
Gln Arg Asp Tyr Pro His Val Ala Arg Ser Gly Lys Arg Ala Leu Trp
145                 150                 155                 160
Gly His Asn Ile Val Glu Cys Ser Gly Leu Leu Leu Ala Ser Asp Glu
                165                 170                 175
Cys Thr Pro Asn Arg Thr Cys Ser Tyr Pro Ile Tyr Trp Pro Val Asn
            180                 185                 190
Ala Asp Gly Ser Gly Pro Gly Gly Ala Pro Arg Glu Met Arg Met His
        195                 200                 205
Pro Asp Asp Glu His Met Gly Trp Ser Ser Phe Thr Ser Asn Gly Gly
    210                 215                 220
Gln Phe Ala Tyr Phe Gly Arg Leu Ala Phe Asn Lys Asn Pro Ser Thr
```

```
225                 230                 235                 240
Gly Asn Ile Arg Ala Pro Arg Tyr Asp Leu Val Asp Val Asn Leu Leu
                245                 250                 255
Ile Leu Pro Asn Gly Pro Ala Pro Ile Met Ala Asn Gly Asp Glu Leu
            260                 265                 270
Glu Leu His Asp Glu Ala Ile Thr Val Gly Glu Leu Arg Gly Phe Ser
        275                 280                 285
Gly Ser Gly Asp Glu Ile Leu Tyr Ile Gly Ser Pro Arg Glu Ala Asn
    290                 295                 300
Asn Ile Asp Val Phe Ala Val His Leu Val Thr Gly Ala Val Arg Arg
305                 310                 315                 320
Leu Thr Ser His Pro Glu Tyr Thr Asp Pro Val Ala Phe Ser Arg Asp
                325                 330                 335
Asp Lys Trp Phe Val Ala Met Asp Thr Arg Gly Ser Asp Arg Gln Met
            340                 345                 350
Trp Met Ser Gly Met Arg Met Val Pro Pro Leu Ile Asp Leu Val Thr
        355                 360                 365
Val Thr Ala Ala Ser Ser Thr Arg Asn Asn Gly Pro Arg Arg Phe Phe
    370                 375                 380
Gln Pro Ile Leu Ile Asp Arg His Gly Asp Arg Gly Asp Tyr Phe Val
385                 390                 395                 400
Phe Thr Thr Gly Leu Glu Glu Ser Thr
                405
```

<210> 32475
<211> 251
<212> PRT
<213> A.fumigatus

<400> 32475

```
Leu Arg Tyr Ile Ala Glu Leu Pro Pro Asp Gly Ser Thr Cys Asn Asp
1               5                   10                  15
Ile Leu Phe Ser Leu Leu Gly Leu Thr Tyr Asp Ala Val Ile Ala Ser
            20                  25                  30
Lys Met Val Gly Leu Ala Val Glu His Asn Ile Gln Val Asn Asp Gly
        35                  40                  45
Pro Leu Thr Ser Glu Asn Ala Ala Val Leu Arg Pro Ser Asp Pro Ser
    50                  55                  60
Leu Pro Leu Asp Glu Leu Arg Ala Arg Tyr Glu Gln Asp Gly Tyr Leu
65                  70                  75                  80
Phe Leu Lys His Leu Leu Pro Arg Asp Asp Val Leu Glu Ala Arg Arg
                85                  90                  95
Gln Tyr Phe Ser Leu Leu Ala Pro Thr Gly Val Leu Gln Glu Gly Thr
            100                 105                 110
Asp Pro Val Gln Gly Ile Phe Asn Pro Thr Lys Ser Pro Asp Gln Tyr
        115                 120                 125
Pro Gly Ile Gly Ala Gly Ala Val Gly Asn Asn Gly Arg Pro Gly Gly
    130                 135                 140
Asp Gln Ala Ala Glu Phe Val Asp Leu Ala Ile Glu Ala His Tyr Gln
145                 150                 155                 160
Asp Trp Tyr Ala Asp Lys Phe Cys Asn His Pro Ala Leu Val Arg Phe
                165                 170                 175
Val Ala Glu Phe Thr Ser Trp Gly Glu Arg Thr Leu Asn Phe Arg Arg
            180                 185                 190
Thr Leu Leu Arg Asn Asn Thr Pro Gly Thr Lys Pro Ile Gly Val His
        195                 200                 205
```

```
Tyr Asp Gln Ile Phe Leu Arg Tyr Gly Glu Pro Thr Ser Val Thr Ala
    210                 215                 220
Trp Val Pro Met Gly Asp Ile Lys Ile Asn Gly Gly Gly Leu Ile Tyr
225                 230                 235                 240
Leu Glu Asp Ser Met Leu Ser Ser Cys Val Pro
                245                 250
```

<210> 32476
<211> 93
<212> PRT
<213> A.fumigatus

<400> 32476

```
Gln Cys Ile Cys Thr Leu Ala Asp Gly Pro Gly Asp Pro Val Gly Leu
1               5                   10                  15
Lys Ile Glu Glu Glu Phe Thr Thr Lys Ala Lys Gln Ala Gly Leu Thr
            20                  25                  30
Asp Glu Glu Ala Arg Ser Ala Phe Asn Ser Asn Met Met Ala Thr Gly
        35                  40                  45
Leu Leu Ser Glu Ser Pro Ile Glu Phe Ala Arg Gln His Gly Arg Arg
    50                  55                  60
Trp Leu Val Ser Ala Tyr Glu Ala Gly Asp Val Val Leu His Lys Pro
65                  70                  75                  80
His Met Val Cys Leu Arg Pro Leu Pro Arg Met Leu Ser
                85                  90
```

<210> 32477
<211> 191
<212> PRT
<213> A.fumigatus

<400> 32477

```
Thr Pro Pro Gly Trp Val Asn Leu Gln Arg His Pro Val Phe Thr Thr
1               5                   10                  15
Arg Thr Tyr Ile Arg Arg Cys Asp Arg Leu Lys Asn Gly Arg Thr Arg
            20                  25                  30
Ser Arg Ala Gln His Pro Ser Gln Arg Trp Pro Leu Asp Leu Arg Lys
        35                  40                  45
Arg Arg Cys Ser Pro Ser Leu Arg Pro Leu Pro Pro Pro Gly Arg Thr
    50                  55                  60
Pro Arg Pro Leu Arg Thr Arg Arg Leu Pro Leu Pro Gln Thr Pro Ser
65                  70                  75                  80
Pro Pro Arg Arg Arg Pro Arg Ser Pro Gln Thr Val Leu Leu Pro Ala
                85                  90                  95
Arg Pro Asn Arg Arg Pro Pro Arg Arg His Arg Pro Arg Pro Arg His
            100                 105                 110
Leu Gln Pro His Glu Ile Pro Arg Ser Val Pro Arg His Arg Arg Arg
        115                 120                 125
Arg Ser Arg Gln Gln Arg Pro Ser Gly Gly Arg Pro Gly Cys Arg Val
    130                 135                 140
Cys Gly Ser Ser His Arg Gly Ala Leu Pro Gly Leu Val Cys Gly Gln
145                 150                 155                 160
Val Leu Gln Pro Ser Arg Phe Gly Pro Leu Cys Gly Arg Val His Glu
                165                 170                 175
Leu Gly Arg Ala Tyr Val Glu Phe Pro Pro Asp Ala Ala Glu Glu
            180                 185                 190
```

<210> 32478
<211> 85
<212> PRT
<213> A.fumigatus

<400> 32478
Val Asp Arg Gln Arg Leu Gly His Pro Leu Leu Pro Pro Arg Arg Leu
1 5 10 15
His Pro Val Cys Thr Thr Glu Leu Ala Asp Leu Ala Lys His Gln Ser
20 25 30
Glu Phe Ala Lys Arg Gly Val Lys Leu Ile Gly Leu Ser Ala Asn Ser
35 40 45
Ile Glu Ser His Asp Gly Trp Ile Asn Asp Ile Thr Glu Ile Ala Gly
50 55 60
Cys Ser Leu Thr Leu Pro Val Ile Gly Asp Glu Asp Arg Lys Ile Ala
65 70 75 80
His Thr Tyr Asp Met
85

<210> 32479
<211> 119
<212> PRT
<213> A.fumigatus

<400> 32479
Gln Ser Ala Thr Arg Asn Arg Leu Asp His Gln Asp Val Thr Asn Val
1 5 10 15
Gly Ala Arg Gly Ile Ala Tyr Thr Ile Arg Ser Val Phe Ile Ile Asp
20 25 30
Ser Asn Lys Val Ile Arg Leu Ile Gln Ala Tyr Pro Ala Ser Thr Gly
35 40 45
Arg Ser Thr Thr Glu Leu Leu Arg Val Val Asp Ser Leu Leu Val Thr
50 55 60
Asp Lys Tyr Ser Val Asn Thr Pro Ala Asn Trp Glu Pro Gly Asp Asp
65 70 75 80
Val Val Val Pro Ala Gly Leu Thr Ala Glu Glu Ala Gln Val Lys Tyr
85 90 95
Pro Asn Met Glu Thr Val Lys Pro Tyr Leu Arg Phe Ile Pro Leu Ala
100 105 110
Arg His His Leu Tyr Gln His
115

<210> 32480
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32480
Arg Ser Thr Met Leu Ser Gln Cys Ala Ala Asn His Leu Thr Ile Leu
1 5 10 15
Ser Asp Tyr Ala Ser Ile Tyr Arg Leu Arg Leu Gly Phe Lys Ala Pro
20 25 30
Asn Phe Gln Ala Asp Thr Thr Ile Gly Arg Ile Asp Phe Tyr Glu Trp
35 40 45
Ile Gly Asn Asp Trp Val Ile Leu Phe Ser His Pro Glu Asp Tyr Thr

```
    50                  55                  60
Pro Ser Ala Pro Pro Asn Trp Gln Thr
65                  70

<210> 32481
<211> 196
<212> PRT
<213> A.fumigatus

<400> 32481
His Leu Met Leu Ile Lys Met Val Pro Gly Gln Trp Tyr Glu Ala Gln
1               5                   10                  15
Ile Arg Leu His Ser Phe His Ile Trp Ile Leu Asn Leu Arg Leu Leu
            20                  25                  30
Gly Ser Glu Thr Arg Gly Asn Asp Tyr Ile Ile Thr Arg Leu Pro Val
        35                  40                  45
Gly Gly Gly Val Asp Gly Val Leu Val Gly Asp Lys Gln Gly Ile His
    50                  55                  60
Asp Thr Glu Gln Leu Ser Cys Ala Ala Thr Gly Arg Gly Arg Ile Arg
65                  70                  75                  80
Leu Asp Glu Ala Asp His Leu Val Gly Ile Asp Asp Lys Tyr Arg Pro
                85                  90                  95
Asp Arg Val Gly Asp Ala Ala Gly Ala Asp Val Gly Asp Val Leu Val
            100                 105                 110
Val Glu Pro Val Pro Arg Arg Thr Leu Leu Val Ser Ser Gln Gln Trp
        115                 120                 125
Ala Ala Asp Glu Lys Gly Arg Asp Pro Leu His Ile Ile Ser Met Gly
    130                 135                 140
Asn Leu Ala Ile Leu Ile Ala Asn Asp Arg Gln Cys Gln Arg Thr Ala
145                 150                 155                 160
Ser Asp Leu Gly Asn Val Val Asp Pro Ser Ile Val Arg Leu Asn Arg
                165                 170                 175
Ile Gly Gly Gln Ala Asp Gln Leu Asp Ala Ala Leu Gly Glu Phe Gly
            180                 185                 190
Leu Val Leu Gly
        195

<210> 32482
<211> 104
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (85)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32482
Val Arg Ile Ala Phe Pro Ser Ser Pro Gly Val Glu Asp Glu Ile Arg
1               5                   10                  15
Leu Thr Lys Asn Leu Asn Ser Val Asn Phe Pro Glu Phe Ser Ser Thr
            20                  25                  30
Gln Ser Leu Asn Ser Tyr Gly Asp Val Arg Thr Gln Leu Ile Gln Leu
        35                  40                  45
Ala Glu Tyr Glu His Ile His Thr Leu Ser Cys Leu Asn Asp Leu Thr
    50                  55                  60
```

Gln Ile Leu Glu Asn Ser Gly Arg Gln Thr Ile Ser Leu Tyr Leu Gln
65 70 75 80
Met Tyr His Arg Xaa Cys Ile Ile Tyr Asn Glu Thr Cys Val Lys Tyr
85 90 95
Ala Val Gly Ser Thr Thr Ala Met
100

<210> 32483
<211> 74
<212> PRT
<213> A.fumigatus

<400> 32483
Val Trp Ala Ile Leu Arg Ser Ser Ser Pro Met Thr Gly Asn Val Asn
1 5 10 15
Glu Gln Pro Ala Ile Ser Val Met Ser Leu Ile His Pro Ser Cys Asp
20 25 30
Ser Ile Glu Leu Ala Asp Arg Pro Ile Ser Leu Thr Pro Arg Leu Ala
35 40 45
Asn Ser Asp Trp Cys Leu Ala Arg Ser Ala Ser Ser Val Val Gln Thr
50 55 60
Gly Cys Ser Leu Arg Gly Gly Arg Arg Gly
65 70

<210> 32484
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32484
Thr Ser Glu Thr Ile Arg Ser Ser Leu Tyr Asn Ile Cys Lys Tyr Leu
1 5 10 15
Ile Met Cys Met Ser Asn Thr Glu Phe Ser Tyr Lys Val Gly Lys Ser
20 25 30
Ala Ile Glu Lys Tyr Lys Lys Val His Glu Ala Lys Ala Val Thr Ala
35 40 45
Gln Leu Trp Gln Ser Ile Tyr Gly Met Glu Gln Gln Lys Pro Val Phe
50 55 60
Ala Arg Leu Leu Leu Val Ser Gln Ser
65 70

<210> 32485
<211> 110
<212> PRT
<213> A.fumigatus

<400> 32485
Ala Cys Ser Arg Cys Trp Gln Gly Arg Leu Asn Ala Glu Gln Leu Leu
1 5 10 15
Pro Gln Cys Phe Gln Gly Glu Ser Ile Ser Cys Arg His Gly Asp Asp
20 25 30
Ala His Pro His Ala Arg Pro Gln Arg Ile Arg Ala Ala Glu Gln Ser
35 40 45
Leu Asn Ile Asp Arg Asn Asn Tyr Leu His Ile Gln Met Met Asp Arg
50 55 60
Leu Trp Gly Ser Gly Asp Pro Asn Glu Ser Leu Thr Asp Thr Tyr Tyr

65 70 75 80
Ala Ala Tyr Asp Asp His Arg Tyr Leu Lys Trp Ala Ser Val Ala Val
85 90 95
Ser Lys Asp Ser Tyr Ile Ser Thr Ser Cys Ser Asp Gln Leu
100 105 110

<210> 32486
<211> 99
<212> PRT
<213> A.fumigatus

<400> 32486
Ile Arg Ser Ser Met Leu Pro Tyr Gln Pro Asp His Pro Phe Asp Ser
1 5 10 15
Ser Asn Pro Lys Ser Gly Ser Val Ser Thr His Arg Ala Leu Lys Ile
20 25 30
Ala Arg Gln Gln Val Phe Leu Val Phe Ser Phe Phe Phe Tyr Asn Ser
35 40 45
Pro Pro Ile Tyr Leu Leu Pro Ile His Val Leu Gln Arg Ile Ser Thr
50 55 60
Thr Asp Gly Met Leu Ala Ala Ser Leu Ser Leu Ala Arg His Ser Leu
65 70 75 80
Pro Gly Glu Thr Arg Gln His Thr Gln Met Ile Gly Ile Phe Arg Leu
85 90 95
Arg Gly Gly

<210> 32487
<211> 299
<212> PRT
<213> A.fumigatus

<400> 32487
Gln Glu Cys Gly Ser His Phe Ser Leu Arg Arg Tyr Phe Val Lys Gly
1 5 10 15
Ser Ser Ile Lys Met Ile Arg Arg Leu Ala Ala Phe Ser Ala Leu Ser
20 25 30
Gly Leu Ala Thr Ala Trp Leu Pro Glu Val Asn Lys Lys Ile Thr Ser
35 40 45
Thr Asn Gly Thr Asn Leu Phe Thr Ser Ser Asn Gly Lys Ile Arg Gly
50 55 60
Val Asn Leu Gly Ser Gln Phe Val Phe Glu Pro Trp Ile Ala Glu Lys
65 70 75 80
Ala Trp Ser Asp Met Gly Cys Gly Gly Gln Lys Ser Glu Phe Asp Cys
85 90 95
Val Ser Arg Leu Gly Gln Ala Asn Ala Asn Ser Ala Phe Ala Ser His
100 105 110
Trp Gly Ser Trp Ile Thr Gln Asp Asp Ile Ala Glu Met Val Ser Tyr
115 120 125
Gly Leu Asn Thr Ile Arg Val Pro Val Gly Tyr Trp Met Arg Glu Asp
130 135 140
Leu Val Tyr Ser Asp Ser Glu His Phe Pro Gln Gly Gly Leu Gln Tyr
145 150 155 160
Leu Glu Asn Leu Cys Glu Trp Ala Ser Asp Ala Gly Leu Tyr Ile Ile
165 170 175
Ile Asp Leu His Gly Ala Pro Gly Ala Gln Ala Pro Gln Asn Pro Phe

```
            180                 185                 190
Thr Gly Gln Tyr Ala Pro Ile Ala Gly Phe Tyr Gln Asp Tyr Gln Phe
        195                 200                 205
Glu Arg Ala Leu Lys Phe Leu Glu Trp Met Thr Thr Asn Ile His Gln
    210                 215                 220
Asn Asp Lys Phe Arg Asn Val Gly Met Leu Glu Val Val Asn Glu Pro
225                 230                 235                 240
Val Gln Asp Ala Gly Lys Val Gly Ser Met Arg Ser Ser Tyr Tyr Pro
                245                 250                 255
Asn Ala Phe Lys Val Ser Arg Ser His Ala Gly Thr Glu Thr Met Leu
            260                 265                 270
Thr Leu Thr Leu Asp Arg Arg Glu Ser Ala Leu Gln Ser Lys Ala Ser
        275                 280                 285
Thr Ser Ile Gly Thr Thr Thr Ser Thr Ser Arg
    290                 295
```

<210> 32488
<211> 69
<212> PRT
<213> A.fumigatus

<400> 32488

```
Ser Gly His Asp Thr Asp Thr Met Ser Ile Tyr Ser Leu Thr Pro Ser
1               5                   10                  15
Ile Val Arg Leu Ser Pro His Asn Lys Gly Gly Thr Val Leu Trp Glu
            20                  25                  30
Tyr Ala Thr Ile Asp Gly Pro Arg Pro Ala Val Phe His Pro Ile Tyr
        35                  40                  45
Phe Arg Ile Leu Tyr Thr Ala Leu Arg Ala Cys Asp Gly Met Pro Ala
    50                  55                  60
Arg Leu Arg Cys Tyr
65
```

<210> 32489
<211> 436
<212> PRT
<213> A.fumigatus

<400> 32489

```
Leu Leu Leu Ala Leu Gln Thr His Leu Ser Met Ala Asn Val His Gly
1               5                   10                  15
Met Leu Ile Ser Ser Ala Val Phe Val Asp Ser Leu Tyr Asn Pro His
            20                  25                  30
Tyr Gly Tyr Phe Ser Lys His Ala Thr Ile Phe Ser Pro Gly Glu Pro
        35                  40                  45
Phe Asp Phe Asn Asn Ile Glu Asp Gly Pro Ala Phe His Arg Met Leu
    50                  55                  60
Gly Glu Arg Tyr Thr Glu Phe Glu Asn Lys Leu Asp Glu Thr Gln Pro
65                  70                  75                  80
Asp Val Ala Arg Gln Leu Trp His Thr Pro Thr Glu Leu Phe Arg Pro
                85                  90                  95
Tyr Tyr Gly Glu Thr Val Ala Arg Tyr Leu Val Ser Asn Tyr Lys Leu
            100                 105                 110
Thr Leu Tyr Pro Tyr His Asp Leu Ile Ile Tyr Glu Met Gly Ala Gly
        115                 120                 125
Asn Gly Thr Met Met Ile Asn Ile Leu Asp Phe Ile Arg Asp Thr Asp
```

```
    130                 135                 140
Tyr Glu Val Tyr Gln Arg Thr Lys Phe Lys Ile Ile Glu Ile Ser Pro
145                 150                 155                 160
Ala Leu Ala Ser Leu Gln Met Lys Asn Leu Thr Asp Ser Val Asn Ala
                165                 170                 175
Ala Gly His Met Asp His Val Glu Ile Ile Asn Arg Ser Ile Phe Asp
            180                 185                 190
Trp Asp Thr Tyr Val His Ser Pro Cys Phe Phe Leu Ala Leu Glu Val
        195                 200                 205
Phe Asp Asn Phe Ser His Asp Ala Ile Arg Tyr Asp Cys Lys Thr Glu
    210                 215                 220
Leu Pro Gln Gln Gly Gly Val Leu Ile Asp Ala Asp Gly Glu Phe His
225                 230                 235                 240
Glu Tyr Tyr Asn Ala Gln Leu Asp Pro Val Ala Ser Arg Phe Leu Arg
                245                 250                 255
Val Arg Gln Ala Ala Ala Arg Arg Pro Phe Pro Ser Pro Leu Gly Pro
            260                 265                 270
Lys Ala Met Arg Gln Leu Arg Gly Ala Leu Pro Phe Gln Ser Pro Tyr
        275                 280                 285
Thr Leu Pro Glu Tyr Ile Arg Thr Arg Leu Met Gln Phe Phe Asp Ile
    290                 295                 300
Leu Asp Ser Tyr Phe Arg Ala His Arg Leu Val Ala Ser Asp Phe Asn
305                 310                 315                 320
Ser Leu Pro Asp Ala Val Pro Gly Ile Asn Ala Pro Val Val Gln Thr
                325                 330                 335
Arg Tyr Lys Arg Arg Thr Val Pro Val Ser Thr Pro Phe Val Ser Thr
            340                 345                 350
Phe Phe Phe Leu Thr Leu Arg Thr His Ser Asn Cys Ala Ile Gln Val
        355                 360                 365
His Gln Gly Tyr Phe Asp Ile Phe Phe Pro Thr Asp Phe Asn Val Ile
    370                 375                 380
Glu Asp Leu Tyr Arg Ala Ile Thr Gly Lys Leu Thr Gln Val Met Ser
385                 390                 395                 400
His Glu Asp Phe Val Arg Arg Trp Ala Tyr Ile Glu Asp Thr Glu Thr
                405                 410                 415
Arg Ser Gly Glu Asn Pro Leu Leu Thr Trp Tyr Lys Asn Ala Ser Met
            420                 425                 430
Leu Met Thr Val
        435
```

<210> 32490
<211> 131
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (45),(59),(112),(113),(120)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32490

```
Pro Arg Lys Leu Ile Asn Ile Met Thr Pro Ser Pro Ile Pro His Trp
1               5                   10                  15
Lys Ser Ala Val Gln Gln Lys Arg Ala Ala Gln Leu Asn Ala Ile Pro
            20                  25                  30
Pro Ser Trp Arg Leu Pro Ser Thr Ile Leu Thr Pro Xaa Leu Pro Asn
```

```
        35                  40                  45
Thr Leu Glu Thr Ile Arg Ser Cys Gly Leu Xaa Ser Ala Glu Glu Leu
    50                  55                  60
Glu Trp Thr Glu Thr Asn Asp Val Thr Asn Leu Leu Ser Arg Leu Ala
65                  70                  75                  80
Ser Arg Glu Val Ser Phe Val Gln Leu Thr Thr Ala Phe Cys Lys Arg
                85                  90                  95
Ala Ala Ile Ala Gln Gln Met Thr Lys Cys Leu Thr Glu Ile Phe Xaa
            100                 105                 110
Xaa Arg Ala Leu Arg Glu Arg Xaa Asp Trp Met Ile Ser Met Arg Arg
        115                 120                 125
Leu Val Phe
    130
```

<210> 32491
<211> 61
<212> PRT
<213> A.fumigatus

<400> 32491

```
Ala Ser Ile Thr Ile Gln Ile Thr Asn Cys Arg Ser Leu Pro Gly Ala
1               5                   10                  15
Ser Met Ala Ser Ile Thr Thr Glu Tyr Ile Ser Val Gly Gly Asn Arg
            20                  25                  30
His Pro Ala Ala Ala Asp Trp Asp Val Gln Leu Gly Val Leu Ala Phe
        35                  40                  45
Gly Ala Asp Asn Asn Val Ala Leu Trp Asn Pro Ser Val
    50                  55                  60
```

<210> 32492
<211> 781
<212> PRT
<213> A.fumigatus

<400> 32492

```
Asp Ala Ser Gln Arg Gly Val Tyr Ala Leu Leu Val Gly His Thr Asp
1               5                   10                  15
Lys Val Ser Ala Val Arg Phe Tyr Thr Cys Pro Ala Thr Gly Thr Lys
            20                  25                  30
Leu Leu Leu Thr Gly Ser Ile Asp Gln Thr Ile Arg Ile Trp Arg Ala
        35                  40                  45
Asp Thr Val Asp Pro Thr Lys Phe Ala His Ala His Thr Leu Thr Gly
    50                  55                  60
His Thr Gly Ser Val Asn Thr Ile Ala Val Ala Asp Gly Val Ala Ile
65                  70                  75                  80
Ile Ala Ser Gly Ala Ala Asp Gly Thr Val Lys Ile Trp Lys Ile Asp
                85                  90                  95
Thr Gln Glu Thr Val Ile Arg Ala Asp Leu Phe Gln Ser Leu Thr Met
            100                 105                 110
Lys Pro Arg Phe Phe Pro Leu Ala Leu Ser Leu Lys Pro Leu Ser Thr
        115                 120                 125
Pro Leu Ser Thr Glu Leu Lys Asp Lys Pro Val Val Leu Ala Val Ala
    130                 135                 140
Gly Thr Met Asn Asn Val Gln Val Tyr Val Ser Glu Asp Thr Leu Ala
145                 150                 155                 160
Gly Ala Asn Phe Arg Leu Ser Ala Thr Leu Ser Gly His Glu Ala Trp
```

```
                 165                 170                 175
Val Arg Ser Leu Ser Phe Thr Glu Asp Lys Gln Ser Lys Ser Gly Asp
            180                 185                 190
Leu Leu Leu Ala Ser Ala Ser Gln Asp Lys Tyr Ile Arg Leu Trp Arg
        195                 200                 205
Leu Gln Arg Gly Glu Ala Thr Lys Ser Ala Leu Ser Asp Asp Ala Asp
    210                 215                 220
Pro Met Leu Gly Gly Leu Glu Thr Thr Leu Ser Asn Lys Ala His Gln
225                 230                 235                 240
Phe Glu Ala Ala Gly Ser Lys Tyr Ser Val Thr Phe Glu Ala Leu Leu
                245                 250                 255
Phe Gly Asn Glu Asp Trp Ile Tyr Thr Ala Cys Trp Asn Pro Ser Thr
            260                 265                 270
Glu Arg Gln Gln Leu Leu Ser Ala Ser Ala Asp Asn Thr Leu Thr Ile
        275                 280                 285
Trp Glu Gln Asp Pro Val Ser Gly Val Trp Leu Ser Val Glu Arg Met
    290                 295                 300
Gly Glu Ile Ser Val Gln Lys Gly Ser Thr Thr Ala Thr Gly Ser Thr
305                 310                 315                 320
Gly Gly Phe Trp Ile Gly Leu Trp Ser Pro Asn Gly Arg Gln Val Val
                325                 330                 335
Ser Leu Gly Arg Thr Gly Ser Trp Arg Ala Trp Arg Tyr Asp Ala Asp
            340                 345                 350
Arg Asp Met Trp Leu Gln Ala Leu Gly Ile Thr Gly His Val Arg Ser
        355                 360                 365
Val Asn Gly Val Gln Trp Glu Pro Thr Gly Gly Tyr Leu Leu Ser Thr
    370                 375                 380
Ser Ala Asp Gln Thr Thr Arg Leu His Ala Glu Trp Leu Arg Glu Gly
385                 390                 395                 400
Leu Lys Ser Trp His Glu Phe Ser Arg Pro Gln Ile His Gly Tyr Asp
                405                 410                 415
Leu Asn Cys Ile Asp Ile Leu Gly Pro Ala Arg Phe Val Ser Gly Ala
            420                 425                 430
Asp Glu Lys Leu Leu Arg Val Phe Asn Glu Pro Lys Pro Ile Ala Gln
        435                 440                 445
Leu Leu Glu Lys Leu Ala Gly Phe Lys Pro Gly Thr Asp Glu Glu Leu
    450                 455                 460
Pro Asp Thr Ala Gln Ile Pro Val Leu Gly Leu Ser Asn Gln Ala Val
465                 470                 475                 480
Gly Asp Asp Ile Pro Met Glu Val Asp Glu Glu Ser Ala Ala Gly Ala
                485                 490                 495
Arg Gln Val Gln Ala Asn Gln Ala Met Ile Ser Asn Leu Trp His Pro
            500                 505                 510
Pro Leu Glu Asp Gln Leu Ala Arg Tyr Thr Leu Trp Pro Glu His Glu
        515                 520                 525
Lys Leu Tyr Gly His Gly Tyr Glu Ile Ser Ala Val Ala Val Asn His
    530                 535                 540
Asp Arg Thr Leu Val Ala Thr Ala Cys Lys Ala Ser Ser Ile Asp His
545                 550                 555                 560
Ala Val Ile Arg Leu Tyr Asp Thr Ser Asp Trp Arg Glu Ile Arg Pro
                565                 570                 575
Ser Leu Lys Ala His Ser Leu Thr Ile Thr Ser Leu Cys Phe Ser Ser
            580                 585                 590
Asp Asp Arg Tyr Leu Leu Ser Val Gly Arg Asp Arg Gln Trp Ala Val
        595                 600                 605
Phe Leu Arg Ser Gly Gln Asp Pro Ser Ser Phe Ser Leu Leu Thr Ser
```

```
    610                 615                 620
Asn Pro Lys Gly His Phe Arg Met Ile Leu Asp Ala Ala Trp Ala Pro
625                 630                 635                 640
Gln Val Ala Lys Pro Val Phe Ala Thr Ala Gly Arg Asp Lys Ser Ile
                645                 650                 655
Lys Leu Trp Glu Lys Val Gln Asp Ser Phe Thr Cys Lys Thr Thr Ile
            660                 665                 670
Ser Leu Glu Asn Ser Val Thr Ala Val Ser Ile Leu Pro Ser Ile Leu
        675                 680                 685
Asp Ala Ser Phe Phe Leu Ala Ala Gly Glu Glu Ser Gly Lys Leu Ser
    690                 695                 700
Ile Tyr Gln Val Thr Val Asp Gly Leu Glu Ala Arg His Ile Ala Thr
705                 710                 715                 720
Val Asp Arg Ser Val Ser Pro Ser Arg Ala Ile Thr Gln Leu Ser Trp
                725                 730                 735
Arg Pro Ser His Arg Thr Asp Val Arg Asp Thr Gln Ser Arg Phe Glu
            740                 745                 750
Leu Ala Val Ala Ser Glu Asp Ser Ser Val Arg Val Tyr Ala Ile Ser
        755                 760                 765
Ser Ser Pro Arg Gly Ser Lys Asp Pro Arg Tyr Ala Tyr
    770                 775                 780

<210> 32493
<211> 158
<212> PRT
<213> A.fumigatus

<400> 32493
Arg Gln Ile Arg Ser Asn Pro Gly Gly Gln Ala Trp His Ser Phe Phe
1               5                   10                  15
Lys Asn Lys Val Met Arg Arg Gly Trp Leu Glu Trp Leu Gln Met Ser
            20                  25                  30
Met Pro Ser Asn Tyr Tyr Pro Ser Arg Ile Ser Met Arg Val Phe Ile
        35                  40                  45
Val Leu Gln Ser Val Asp Val Ser Ile Val Ser Val Thr Val Cys Val
    50                  55                  60
Lys Gly Cys Arg Arg Ala Ala Ser Leu Ser Ala Leu Asn Ala Ser Ile
65                  70                  75                  80
Leu Ala Leu Ser Ser Val Ser Arg Gln Thr Gln Ser Ala Ala Ser Leu
                85                  90                  95
Ser Thr Ile Lys Lys Asp Lys Arg Gln Glu Leu Thr Arg Gly Tyr Ile
            100                 105                 110
Phe His Leu Glu Arg Ser Ser Val Glu Arg Ile Met Trp Val Thr Gln
        115                 120                 125
Lys Met Arg Ser Lys Ser Arg Thr Ile His Gly Tyr Leu Gly Ser Arg
    130                 135                 140
Glu Asp Asn Trp Ile Phe His Gln Gly Ile Asp Gln Gly Ile
145                 150                 155

<210> 32494
<211> 512
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
```

<222> (2),(4),(6)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32494

```
Pro Xaa Leu Xaa Pro Xaa Trp Trp Thr His Gly Glu Lys Gly Thr Thr
1               5                  10                  15
Asn Phe Ile Thr Glu Ile Ser Phe Leu Thr Val Ala Ala His His Tyr
            20                  25                  30
Gly Ser Glu Ser Leu Thr Ser Lys Leu Asp Gln Leu Glu Lys Asp Leu
        35                  40                  45
Arg His Met Glu Gly Thr Ile Arg Arg Phe Glu Leu Glu Arg Pro Arg
    50                  55                  60
Trp Ile His Asn Pro Val Gln Leu Arg Val Phe Glu Gln Ala Leu Arg
65                  70                  75                  80
Lys Tyr Lys Asp Lys Leu Asp Leu Gly Leu Ala Leu Lys Tyr Ser Leu
                85                  90                  95
Gln Gly Val Leu Phe Asp Asp Gln Trp Gln Ala Arg Ser Met Leu Phe
            100                 105                 110
Met Arg Tyr Val Ile Val Trp Leu Leu Arg Leu Val Ser Gly Val Asn
        115                 120                 125
Phe Pro Lys Glu Pro Ile Lys Leu Pro Leu Pro Glu Gln Gln Pro Glu
    130                 135                 140
Val Phe Lys Cys Leu Pro Glu Tyr Phe Val Asp Asp Ile Val Ser Asn
145                 150                 155                 160
Phe Lys Phe Ile Met Trp Cys Met Pro Gln Ile Ile Thr Ala Thr Gln
                165                 170                 175
Gly Asp Glu Leu Val Met Leu Cys Ile Thr Phe Leu Glu Ser Ser Asp
            180                 185                 190
Tyr Ile Lys Asn Pro Tyr Leu Lys Ala Gly Leu Val Ser Ile Leu Phe
        195                 200                 205
Arg Gly Thr Trp Pro Arg Pro Gly Gly Ala Arg Gly Val Leu Val Asp
    210                 215                 220
Leu Leu Asn Ser Phe Pro Phe Ala Asn Glu Tyr Leu Leu His Ala Val
225                 230                 235                 240
Met Lys Phe Tyr Ile Glu Ala Glu His Thr Gly Thr His Thr Gln Phe
                245                 250                 255
Phe Asp Lys Phe Asn Ile Arg Tyr Glu Ile Phe Gln Ile Ile Lys Cys
            260                 265                 270
Ile Trp Pro Asn Thr Leu Tyr Arg Asn Lys Leu Tyr Asn Gln Ser Lys
        275                 280                 285
Gln Asn Leu Asp Phe Phe Val Arg Phe Val Asn Leu Leu Leu Asn Asp
    290                 295                 300
Val Thr Tyr Val Leu Asp Glu Ser Phe Gly Ala Phe Ile Thr Ile His
305                 310                 315                 320
Asp Thr Gln Val Glu Leu Ser Arg Asn Gly Asn Asn Met Asp Pro Gln
                325                 330                 335
Glu Arg Gln Gln Lys Glu Glu His Leu Ala Ser Ala Gln Arg Asn Ala
            340                 345                 350
Lys Ser Tyr Met Gln Leu Thr Asn Glu Thr Val Ala Met Leu Lys Leu
        355                 360                 365
Phe Thr Glu Ala Leu Ala Asp Ser Phe Thr Met Pro Glu Ile Val Gln
    370                 375                 380
Arg Leu Ala Asp Met Leu Asp Tyr Asn Leu Asp Ala Met Val Gly Pro
385                 390                 395                 400
Lys Ser Ser Ser Leu Arg Val Asp Asn Leu Gln Glu Tyr Gly Phe Asn
                405                 410                 415
```

```
Pro Arg Ala Leu Leu Ser Glu Ile Val Asp Val Tyr Leu Asn Leu Met
            420                 425                 430
Gly Lys Glu Asn Phe Ile Leu Ala Val Ala Arg Asp Gly Arg Ser Tyr
        435                 440                 445
Lys Pro Ala Asn Phe Gln Lys Ala Gly Glu Ile Leu Arg Lys Trp Ser
    450                 455                 460
Leu Lys Ser Pro Glu Glu Leu Gln Gln Trp Glu Gln Leu Gln Ala Lys
465                 470                 475                 480
Val Arg Ala Ala Lys Glu Ala Asp Glu Gln Ala Glu Glu Asp Leu Gly
                485                 490                 495
Glu Ile Pro Asp Glu Phe Leu Gly Met Phe Gly Glu Leu Leu Thr Trp
            500                 505                 510
```

<210> 32495
<211> 123
<212> PRT
<213> A.fumigatus

<400> 32495

```
Asn Leu Arg Arg Ser Ser Asn Asn Gly Asn Ser Cys Arg Arg Arg Ser
1               5                   10                  15
Gly Arg Pro Arg Arg Leu Met Asn Lys Pro Arg Arg Ile Leu Ala Lys
            20                  25                  30
Phe Leu Met Asn Ser Trp Val Cys Ser Ala Asn Tyr Leu Arg Gly Asp
        35                  40                  45
Gly Gln Ile Ala Asp Gly Phe Ser Leu Asp Pro Leu Ile Tyr Thr Leu
    50                  55                  60
Met Glu Asp Pro Val Ile Leu Pro Gly Ser Lys Val Ser Met Asp Arg
65                  70                  75                  80
Ser Thr Leu Arg Ser His Leu Leu Ser Asp Pro His Asp Pro Phe Asn
                85                  90                  95
Arg Ala Pro Leu Lys Met Glu Asp Val Thr Pro Gly Lys Leu Leu Ser
            100                 105                 110
Phe Val Phe Leu Asn Arg Arg Lys Arg Arg Gly
        115                 120
```

<210> 32496
<211> 164
<212> PRT
<213> A.fumigatus

<400> 32496

```
Gln Ser Gln Glu Ser Asn Ser Leu Asn Arg Ser Ile Val Gly Ala Trp
1               5                   10                  15
Ser Thr Asn Ser Lys Pro Gln Lys Ser Ala Glu Pro Ser Ala Ser Glu
            20                  25                  30
Ser Ala Pro Thr Pro Ala Pro Val Pro Thr Lys Arg Arg Gln His Gly
        35                  40                  45
Gly Glu Ser Gln Ser Ser Lys Arg Arg Lys Ala Asp Val Thr Val Asp
    50                  55                  60
Arg Ser Pro Pro Thr His Val Ser Leu Ala Asp Leu Gly Gly Leu Asp
65                  70                  75                  80
Asp Val Ile Gln Ser Leu Gly Asp Leu Leu Ile Leu Pro Met Thr Arg
                85                  90                  95
Pro Gln Val Phe Val Ser Ser Asn Val Gln Pro Pro Arg Gly Val Leu
            100                 105                 110
```

```
Leu His Gly Pro Pro Gly Cys Gly Lys Thr Met Ile Ala Asn Ala Phe
        115                 120                 125
Ala Ala Glu Leu Gly Val Pro Phe Ile Pro Ile Ser Ala Pro Ser Ile
    130                 135                 140
Val Ser Gly Met Ser Gly Glu Ser Glu Asn Leu His Asp Glu Glu Gln
145                 150                 155                 160
Glu Thr Arg Gln
```

<210> 32497
<211> 131
<212> PRT
<213> A.fumigatus

<400> 32497

```
Arg Gly Glu Leu Leu Val Leu Arg Ala Ile Leu Asp Leu Lys Asn Gln
1               5                   10                  15
Arg Asp Lys Leu Arg Gln Tyr Gln Lys Arg Ile Thr Val Leu Thr Asp
            20                  25                  30
Arg Glu Thr Ala Ile Ala Arg Glu Cys Leu Ala Arg Asp Asp Arg Arg
        35                  40                  45
Arg Ala Leu Leu Ala Leu Arg Arg Lys Lys Tyr Gln Glu Thr Leu Leu
    50                  55                  60
Ser Lys Thr Asp Ala Gln Leu Glu Gln Leu Glu His Leu Thr Ser Gln
65                  70                  75                  80
Val Glu Phe Ser Leu Val Gln Lys Asp Val Leu Phe Gly Leu Gln Gln
                85                  90                  95
Gly Thr Lys Val Leu Gln Ala Ile Asn Lys Glu Met Gly Gly Ile Glu
            100                 105                 110
Ala Val Glu Lys Leu Met Gly Glu Thr Glu Glu Ala Arg Ala Tyr Gln
        115                 120                 125
Glu Val Lys
    130
```

<210> 32498
<211> 311
<212> PRT
<213> A.fumigatus

<400> 32498

```
Glu Tyr Thr Val Thr Gln Val Ser Asn Pro Ser Leu Leu Ala Thr Leu
1               5                   10                  15
Glu Ala Leu Asp His Asp Leu Asp Ser Phe Gly Asn Ser Phe Ala Thr
            20                  25                  30
Thr Val Lys Tyr Ala Gly Val Gly Ile Ala Leu Asp Arg Tyr Ala Ala
        35                  40                  45
Leu Arg Asn Leu His Arg Leu Ser Arg Ile Met Gln Pro Val Lys Pro
    50                  55                  60
Asp Asn Ile Ile Ala Arg Leu Ala Lys Ile Leu Glu Ser Val Pro Arg
65                  70                  75                  80
Pro Phe Gly Lys Asp Gly His Trp His Ala Leu Gln Thr His Arg Val
                85                  90                  95
Gln Ser Leu Gly Glu Val Gly Arg Asn Val Pro Gln Val Trp Glu Arg
            100                 105                 110
Glu Gly Leu Glu Cys Arg Arg Gly His Phe Ser Gly Pro Gly Val Lys
        115                 120                 125
```

```
His Leu Asp Glu Leu Arg Pro Gly Gly Asn Leu Glu Gly Glu Ile Leu
    130                 135                 140
His Ala Asp Leu Gly Asn Leu Leu Gln Gln Cys Leu Arg Leu Leu Trp
145                 150                 155                 160
Ile Leu Val Asp Pro His Leu Gly Leu His Lys Gln Leu Gly Ser Thr
                165                 170                 175
Thr Phe Asn His Val Ala Glu Gln Ser Pro Trp Gly Thr Ala Glu Ala
            180                 185                 190
Asn Gln Arg His Ala Ala Phe Gln Leu Val Pro Gly Lys Arg Asp Gly
        195                 200                 205
Leu Val Tyr Ile Val Gln Leu Leu Leu His Val Asp Leu Leu Leu His
    210                 215                 220
Asn Leu Leu Val Leu Ser Ile Val Arg Arg Leu Gln Arg Phe Arg Glu
225                 230                 235                 240
Val Gly Ser Leu Leu Val His His Phe Tyr Leu His Ser His Gly Leu
                245                 250                 255
Arg Asp Asp Lys Asp Ile Arg Lys Tyr Asp Cys Ser Ile Asp Gln Ser
            260                 265                 270
Cys Ile Pro Ile His Gly Leu Asp Gly Gln Arg Gly Cys Asn Leu Arg
        275                 280                 285
Val Pro Ala Ala Phe Glu Glu Ile Ala Val Ser Phe Arg Phe Met Val
    290                 295                 300
Phe Gly Glu Val Ala Ala Ser
305                 310
```

<210> 32499
<211> 103
<212> PRT
<213> A.fumigatus

<400> 32499

```
Trp Asp Pro Ser Lys Pro Thr Ser Asp Ile Asp Cys Ser Val His Asn
1               5                   10                  15
Leu Ser Thr Ile His Leu Ser Phe Tyr Gln Ala Arg Val Leu Ser Leu
            20                  25                  30
Phe Ser Val Thr Leu Trp Ile His Ile Leu Lys Leu Ile Thr Met Glu
        35                  40                  45
Thr Asp Ala Gly Phe Ile Ala Ala Leu Glu Glu Ala Lys Lys Gly Ala
    50                  55                  60
Ala Glu Gly Gly Val Pro Ile Gly Ala Ala Leu Val Ser Lys Asp Gly
65                  70                  75                  80
Lys Ile Leu Gly Arg Gly His Asn Met Arg Val Gln Lys Gly Ser Ala
                85                  90                  95
Thr Leu His Val Ser Pro Asn
            100
```

<210> 32500
<211> 110
<212> PRT
<213> A.fumigatus

<400> 32500

```
Ala Glu Met Ser Ala Leu Glu Asn Ser Gly Arg Leu Pro Ala Ser Ala
1               5                   10                  15
Tyr Glu Gly Ala Thr Met Tyr Thr Thr Leu Ser Pro Cys Asp Met Cys
            20                  25                  30
```

```
Thr Gly Ala Cys Ile Leu Tyr Lys Val Lys Arg Val Val Ile Gly Glu
        35                  40                  45
Asn Lys Asn Phe Met Gly Gly Glu Glu Tyr Leu Leu Asn Arg Gly Lys
    50                  55                  60
Glu Val Val Val Leu Asp Asn Glu Glu Cys Lys Gln Leu Met Glu Lys
65                  70                  75                  80
Phe Ile Lys Glu Lys Pro Glu Leu Trp Tyr Val Phe Gln Ser Gln Leu
                85                  90                  95
Trp Phe Ser Cys Gly Ile Ile Pro Leu Leu Leu Ser Cys Ser
            100                 105                 110
```

<210> 32501
<211> 139
<212> PRT
<213> A.fumigatus

<400> 32501

```
Thr Lys Leu Thr Ile His Ser Ser Ser Ser Lys Leu Leu Cys Phe Thr
1               5                   10                  15
Leu Glu Ser Asp Gly Ser Leu Lys Ala Gln Asn Ser Ile Gln Ala Ser
            20                  25                  30
Gly Asn Val Leu Asp Leu Thr Val Pro Ser Glu Asn Ser Ser Ile Val
        35                  40                  45
Val Ser Val Asp Ala Val Arg Glu Ala Gly Ser Thr Gln Glu Trp Arg
    50                  55                  60
Thr Ser Pro Ser Ser Pro Ser Thr Leu Val Glu Ala Phe Arg Leu Lys
65                  70                  75                  80
Pro Ala Ser Glu Gly Pro Leu Asp Trp Glu Arg Thr Ser Glu Ala Ile
                85                  90                  95
Thr Ala Gln Ile Asn Ser Glu Gly Thr Ser Asp Ile Ser Ala Asp Leu
            100                 105                 110
Asp Glu Lys Gln Lys Lys Glu Leu Asn Asp Ser Leu Tyr Ser Leu Gly
        115                 120                 125
Asn Leu Arg Lys Lys Asn Met Gly Glu Asp Asp
    130                 135
```

<210> 32502
<211> 354
<212> PRT
<213> A.fumigatus

<400> 32502

```
Leu Asp Ala Leu Ala Gly Arg Tyr Leu Pro Glu Tyr His Glu Ala Lys
1               5                   10                  15
Gly Asn Arg Asp Phe Phe Glu Cys Cys Arg Asn Pro Glu Ile Ala Ser
            20                  25                  30
Thr Leu Thr Ile Gln Pro Val Asp Arg Tyr Ala Gly Leu Ile Asp Ala
        35                  40                  45
Ala Ile Ile Phe Ser Asp Ile Leu Val Ile Pro Gln Ala Met Gly Met
    50                  55                  60
Gln Val Glu Met Val Asp Lys Lys Gly Pro His Phe Pro Glu Pro Leu
65                  70                  75                  80
Lys Ser Pro Asp Asp Gly Gln Tyr Glu Lys Val Met Gln Lys Glu Val
                85                  90                  95
Asn Val Lys Glu Glu Leu Asp Tyr Val Tyr Lys Ala Ile Thr Leu Thr
            100                 105                 110
```

```
Arg His Lys Leu Lys Gly Arg Val Pro Leu Ile Gly Phe Cys Gly Ala
        115                 120                 125
Pro Trp Thr Leu Leu Cys Tyr Met Val Glu Gly Gly Gly Thr Lys Leu
    130                 135                 140
Phe Val Gln Ser Lys Met Trp Ile Tyr Lys Tyr Pro Lys Glu Ser Gln
145                 150                 155                 160
Ala Leu Leu Gln Lys Ile Ala Glu Ile Cys Val Glu Tyr Leu Ala Leu
                165                 170                 175
Gln Val Ala Ser Gly Ala Gln Leu Val Gln Val Phe Asp Ser Trp Ala
            180                 185                 190
Gly Glu Met Ser Pro Ala Ala Phe Lys Thr Phe Ser Leu Pro Tyr Leu
        195                 200                 205
Arg Tyr Ile Ser Ala Asn Leu Pro Lys Arg Leu Asp Ala Met Gly Leu
    210                 215                 220
Glu Arg Val Pro Met Thr Val Phe Ala Lys Gly Ala Trp Tyr Ala Leu
225                 230                 235                 240
Glu Asp Leu Cys Glu Ser Gly Tyr Asn Val Val Gly Leu Asp Trp Leu
                245                 250                 255
His Asp Pro Ala Glu Ala Met Gln Ile Ala Lys Gly Arg Val Thr Ile
            260                 265                 270
Gln Gly Asn Ala Asp Pro Gly Ile Leu Tyr Gly Ser Arg Glu Ala Ile
        275                 280                 285
Thr Glu Ala Val Glu Val Met Val Lys Gly Phe Gln Gly Gly Lys Gln
    290                 295                 300
Gly Trp Ile Ala Asn Leu Gly His Gly Ile Phe Ser Ser Leu Val Arg
305                 310                 315                 320
Thr Ser Ser Ile Arg Ala Leu Thr Val Thr Gly Ile Thr Pro Phe Val
                325                 330                 335
Lys Pro Asp Asp Leu Lys Phe Phe Phe Glu Glu Ile His Arg Leu Thr
            340                 345                 350
Ala Ala
```

<210> 32503
<211> 143
<212> PRT
<213> A.fumigatus

<400> 32503

```
Arg Ser Val Ser Ser Asp Ser Gly Thr Ser Thr Ser Thr Pro Gln Ser
1               5                   10                  15
Ser Leu Pro Ser Met Trp Ser Ser Val Met Arg Leu Ile Glu Met Gly
            20                  25                  30
Thr Thr Met Pro Ser Ala Arg Val Ser Asp Val Ser Pro Val Ser Met
        35                  40                  45
Val Lys Thr Ser Ser Val Leu Ser Lys Ala Asn Cys Leu Arg Ser Ser
    50                  55                  60
Ser Tyr Gly Cys Cys Asn Ser Ala Arg Ile Val Ser Ser Val Ala Arg
65                  70                  75                  80
Phe Arg Trp Leu Arg Phe Phe Ser Ser Cys Ser Ala Tyr Ser Ser Arg
                85                  90                  95
Ile Arg Ser Leu Thr Leu Ser Cys Ala Ser Ser Arg Lys Ser Phe Arg
            100                 105                 110
Thr Ile Ala Pro Gly Pro Phe Ser Ser Val Ser Ala Leu Met Ser Ser
        115                 120                 125
Ser Ser Ser Ser Lys Ala Ser Ala Ala Ile Phe Arg Ala Ile Ser
```

130 135 140

<210> 32504
<211> 811
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (49)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32504
Val Gln Glu Leu Leu Ser Arg Pro Phe Thr Met Lys Asp Phe Gln Ile
1 5 10 15
Val Lys Asp Tyr Val His Phe Ser Asn Ala Cys Lys Leu Arg Asp Ile
20 25 30
Asn Leu Met Asn Gly Glu Ala Asn Gly Glu Thr His Arg Arg Lys Ala
35 40 45
Xaa Gly Arg Ser Phe Phe Glu Arg Val Arg Asn Gly Lys Ala Tyr Gly
50 55 60
Leu Val Arg Ala Phe Gly Ile Thr Ala Asp Ala Phe Ala Gln Asn Ala
65 70 75 80
Leu Lys Glu Gly Arg Arg Gln Tyr Thr Glu Asp Pro Ala Glu Arg Pro
85 90 95
Glu Glu Met Ala Asp Ser Phe Ile Asp Asn Asp Phe Ser Asn Ala Ser
100 105 110
His Val Leu Lys Thr Ala Lys Ala Leu Phe Ala Glu Glu Ile Val Met
115 120 125
Ser Pro Lys Met Arg Lys Val Ile Arg Gln Ala Tyr Tyr Met Asn Gly
130 135 140
Ala Val Asp Cys Phe Arg Thr Glu Lys Gly Leu Arg Arg Ile Asp Glu
145 150 155 160
Gln His Pro Tyr Tyr Glu Phe Lys Tyr Leu Arg Asn Gln Gln Leu Ser
165 170 175
Asp Ile Ala Arg Gln Pro Glu Leu Tyr Leu Arg Met Leu Lys Ala Glu
180 185 190
Glu Glu Gly Leu Val Glu Val Lys Val Arg Phe Glu Asn Phe Asp His
195 200 205
Phe Arg Gln Arg Leu Tyr Pro Asp Ile Glu Ser Asp Asn Tyr Ser Glu
210 215 220
Ile Ala Asp Ala Trp Asn Arg Thr Arg Arg Glu Val Leu Asp Met Ala
225 230 235 240
Leu Gly Lys Leu Glu Arg Leu Ile Asn Arg Ser Val Lys Glu Asn Ile
245 250 255
Arg Gln Glu Cys Glu Asn His Val Ala Lys Glu Cys Arg Glu Ala Phe
260 265 270
Ser Gln Arg Leu Asp Gln Ala Pro Tyr Lys Pro Lys Gly Met Val Leu
275 280 285
Gly Thr Val Pro Arg Val Leu Ala Met Ser Thr Gly Thr Gly Ile Val
290 295 300
Gly Arg Asp Pro Ile His Trp Ala Tyr Val Glu Glu Asp Gly Arg Val
305 310 315 320
Leu Glu Asn Gly Lys Phe Val Asp Leu Ser Ile Gly Asp Arg Asp Arg
325 330 335
Ser Ile Pro Asp Gly Lys Asp Val Glu Ala Leu Ile Glu Leu Leu Glu

```
                340                 345                 350
Arg Arg Arg Pro Asp Val Ile Gly Val Ser Gly Met Ser Pro Glu Thr
        355                 360                 365
Arg Lys Leu Tyr Lys Leu Leu Thr Glu Leu Val Glu Lys Lys Asp Leu
    370                 375                 380
Arg Gly Ala Thr Tyr Thr Asp Glu Arg Asp Glu Glu Ile Ser Asp Pro
385                 390                 395                 400
Leu Glu Val Val Ile Val Asn Asp Glu Val Ala Arg Leu Tyr Gln His
                405                 410                 415
Ser Glu Arg Ala Lys Lys Asp His Pro Ser Phe Gly Pro Leu Thr His
            420                 425                 430
Tyr Cys Val Ala Leu Ala Lys Tyr Leu Gln Ser Pro Leu Lys Glu Tyr
        435                 440                 445
Ala Ser Leu Gly Arg Asp Ile Val Ser Ile Gln Phe Lys Arg Gly Gln
    450                 455                 460
Gln Leu Val Ala Gln Glu Leu Leu Leu Lys Gln Leu Glu Thr Ala Leu
465                 470                 475                 480
Val Asp Met Val Asn Leu Val Gly Val Asp Ile Asn Glu Ala Val Thr
                485                 490                 495
Asp Pro Ala Thr Ala Asn Leu Leu Pro Tyr Val Cys Gly Leu Gly Pro
            500                 505                 510
Arg Lys Ala Ala His Leu Leu Lys Ile Val Asn Met Asn Gly Gly Val
        515                 520                 525
Val Asn Asn Arg Val Glu Leu Leu Gly Val Asn Ala Gln Tyr Pro Ala
    530                 535                 540
Met Gly Val Lys Val Trp Asn Asn Cys Ala Ser Phe Leu Phe Ile Asp
545                 550                 555                 560
Phe Glu Asn Ala Asp Pro Asp Ala Asp Pro Leu Asp Asn Thr Arg Val
                565                 570                 575
His Pro Glu Asp Tyr Asp Ile Ala Arg Lys Met Ala Ala Asp Ala Leu
            580                 585                 590
Glu Leu Asp Glu Glu Asp Ile Lys Ala Glu Thr Asp Glu Asn Gly Pro
        595                 600                 605
Gly Ala Ile Val Arg Lys Leu Phe Arg Asp Glu Ala Gln Asp Arg Val
    610                 615                 620
Asn Asp Leu Ile Leu Glu Glu Tyr Ala Glu Gln Leu Glu Lys Asn Leu
625                 630                 635                 640
Asn Gln Arg Lys Arg Ala Thr Leu Glu Thr Ile Arg Ala Glu Leu Gln
                645                 650                 655
Gln Pro Tyr Glu Glu Leu Arg Lys Gln Phe Ala Leu Leu Ser Thr Asp
            660                 665                 670
Asp Val Phe Thr Met Leu Thr Gly Glu Thr Ser Asp Thr Leu Ala Glu
        675                 680                 685
Gly Met Val Val Pro Ile Ser Ile Lys Arg Ile Thr Asp Asp His Ile
    690                 695                 700
Asp Gly Lys Leu Asp Cys Gly Val Asp Val Leu Val Pro Glu Ser Glu
705                 710                 715                 720
Leu Thr Asp Arg Tyr Asp Ile Pro Val Arg Ala Leu Tyr Ser Leu His
                725                 730                 735
Gln Thr Leu Pro Ala Lys Val Leu Phe Leu Asn Lys Lys Asn Phe Leu
            740                 745                 750
Cys Asn Val Ser Leu Arg Glu Glu Gln Val Ser Arg Pro Thr Pro Arg
        755                 760                 765
Pro Arg Asp His Met Arg Gly Glu Trp Asp Asp Arg Gln Glu Ala Lys
    770                 775                 780
Asp Arg Glu Met Leu Gln Glu Lys Thr Gln Ser Gly Gly Arg Val Ser
```

785 790 795 800
Leu His Arg Gly Asp Gly Lys Ile His Ser Val
805 810

<210> 32505
<211> 67
<212> PRT
<213> A.fumigatus

<400> 32505
Gly Pro Ala Leu Ile Ser Ser His Ser Gln Ile Asp Lys Ser Tyr Thr
1 5 10 15
Ser Asp Ser Arg Cys Arg Pro Gly Tyr Asp Ser Leu Met Asp Ala Phe
20 25 30
Arg Ser Ala Ala Arg Glu Ser Tyr Val Asn Ser Asn Tyr Gln Ser Leu
35 40 45
Leu Val Met Gln Ala Pro Gln Leu Glu Gln Arg Leu Arg Pro His Leu
50 55 60
Leu Asn Arg
65

<210> 32506
<211> 126
<212> PRT
<213> A.fumigatus

<400> 32506
Arg Ser Thr Gln Val Thr Met Leu Ser Ala His Glu Phe Asp Gln Lys
1 5 10 15
Pro Asn Gln Val Ser Ile Ser Pro Leu Leu Gln Lys Leu Ala Tyr Pro
20 25 30
Thr Thr Gln Val Pro Val Asp Pro Ala Glu Ile Ala Ser Ala Phe Ala
35 40 45
Leu Ile Phe Glu Asp Arg Leu Ser Ala Ile Gln Thr Ala Ala Leu Leu
50 55 60
Thr Leu Leu His Ser Thr Gly Lys Asp Arg Asp Ala Gln Val Ile Ala
65 70 75 80
Leu Cys Ser Leu Arg Met Arg Glu Ala Ala Ser Gln Ile Glu Lys Ser
85 90 95
Ser Leu Gln Lys Ala Ile Lys Ala Arg Gly Lys Lys Glu Gly Asn Tyr
100 105 110
Gly Gly Gly Leu Val Ser Glu Ser Lys Pro Glu Pro Ile Ala
115 120 125

<210> 32507
<211> 331
<212> PRT
<213> A.fumigatus

<400> 32507
Leu Ser Cys Leu Phe Asp Lys Phe Val Leu Val Gln Cys Asp Ile Val
1 5 10 15
Gly Thr Gly Gly Asp Ser His Ser Thr Phe Asn Ile Ser Thr Thr Ala
20 25 30
Ser Ile Ile Ala Ser Pro Leu Leu Met Met Ala Lys His Gly Asn Arg
35 40 45

```
Ala Gln Thr Ser Phe Ser Gly Ser Ala Asp Val Leu Asn Ala Ile Ser
    50                  55                  60
Pro Val Pro Pro Lys Ile Ser Ala Val Thr Ala Glu Asn Leu Ala Gln
65                  70                  75                  80
Val Tyr Glu Ala Thr Ser Tyr Ala Phe Leu Phe Ala Pro Asn Phe His
                85                  90                  95
Pro Gly Met Met Tyr Ala Asn Pro Val Arg Arg Gly Leu Gly Leu Arg
            100                 105                 110
Thr Ile Phe Asn Leu Met Gly Pro Leu Ala Asn Pro Val Asp Trp Ala
        115                 120                 125
Leu Glu Ala Arg Val Val Gly Val Ala Tyr Gln Ser Leu Gly Pro Val
    130                 135                 140
Phe Ala Glu Ala Leu Arg Ser Ser Gly Val Thr Lys Ala Leu Val Val
145                 150                 155                 160
Cys Gly Ala Glu Asp Leu Asp Glu Ile Ser Cys Ala Gly Pro Thr Asn
                165                 170                 175
Cys Trp Lys Leu Thr Gly Tyr Pro Asn Pro Asp Tyr Asp Gly Pro Asp
            180                 185                 190
Glu Asp Cys Ser Cys Asp Glu Asp Glu Asn Ile Pro Arg Thr Leu Val
        195                 200                 205
Lys Ile Glu Thr Phe Gln Leu His Pro Ser Asp Phe Gly Leu Pro Ala
    210                 215                 220
His Pro Leu Ser Ala Val Tyr Gly Arg Lys Met Pro Lys Glu Asn Ala
225                 230                 235                 240
Ala Lys Ile Met Ser Ile Leu Arg Asn Glu Leu Pro Pro Asp Asp Pro
                245                 250                 255
Ile Leu Thr Phe Val Leu Ile Asn Val Ala Ala Leu Leu Val Ile Ser
            260                 265                 270
Gly Ile Cys Glu Ala Asp Thr Ser Asn Met Gly Pro Gly Asp Asp Gly
        275                 280                 285
Lys Val Ile Thr Glu Arg Gly Pro Gly Gly Gly Arg Trp Lys Glu Gly
    290                 295                 300
Val Arg Arg Ala Arg Trp Ala Val Glu Ser Gly Ser Ala Leu Lys Cys
305                 310                 315                 320
Leu Glu Gln Phe Ile Glu Val Thr Asn Arg Leu
                325                 330
```

<210> 32508
<211> 190
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (22)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32508

```
Phe Gly Gly Pro Thr Gly Glu Asp Lys Gly Glu Gly Trp Gln Gly Ser
1               5                   10                  15
Leu Val Leu Thr Pro Xaa Ser Val Met Asp Leu Arg Arg Pro Arg Leu
            20                  25                  30
Ala Thr Trp Ser Glu Tyr Leu Ser Arg Arg Leu Gly Trp Arg Gly Lys
        35                  40                  45
Arg Gly Asn Ser Pro Pro Arg Arg Pro Lys Arg Ala Pro Pro Glu Leu
    50                  55                  60
```

```
Glu Leu Glu Leu Val Ala Ala Val Pro Leu Val Leu Ala Ser Ala Leu
65                  70                  75                  80
Glu Pro Val Val Leu Glu Pro Ser Pro Leu Arg Pro Leu Ser Pro Pro
                85                  90                  95
Ser Pro Leu Arg Pro Leu Ser Pro Leu Ser Pro Leu Ser Pro Glu Arg
            100                 105                 110
Pro Glu Ala Pro Glu Glu Pro Glu Leu Pro Arg Leu Pro Arg Leu Pro
        115                 120                 125
Arg Pro Gly Met Glu Val Gly Lys Val Asn Pro Gly Arg Leu Lys Pro
    130                 135                 140
Leu Pro Glu Glu Glu Pro Pro Arg Pro Gly Met Ser Glu Ala Lys Ala
145                 150                 155                 160
Pro Arg Pro Asp Glu Val Glu Glu Pro Pro Pro Pro Lys Val Gly Lys
                165                 170                 175
Arg Glu Ala Arg Ala Pro Ser Pro Ser Val Pro Val Pro Asn
            180                 185                 190
```

<210> 32509
<211> 88
<212> PRT
<213> A.fumigatus

<400> 32509

```
Ser Arg Arg Arg Tyr Leu Ser Ile Lys Gln Gln Val Pro Cys Gln Ser
1               5                   10                  15
Val Ser Val Val Glu Ser Tyr Thr Thr His Leu Asn Arg Gly Ser Ser
            20                  25                  30
Ala Ser Pro Cys Gln Asn Ile Val His Leu Lys His Asp Leu Ser Pro
        35                  40                  45
Val Val Gly Asp Leu Ser Ala Ala Pro Ser Pro Arg Ser Gln Phe Arg
    50                  55                  60
Asn Leu Thr Ile Phe Glu Ser Arg Ser His Leu Val Tyr Ser Val Leu
65                  70                  75                  80
His Arg Leu Asp Gln His Pro Ser
                85
```

<210> 32510
<211> 273
<212> PRT
<213> A.fumigatus

<400> 32510

```
Leu Ile Glu Ala Pro Arg Asn Tyr Phe Asn Asn Ile Gln Asp Pro Phe
1               5                   10                  15
Ala Leu Ser Ile Ala Asn Ser Leu Ile Tyr Val Ile Thr Lys Pro Gln
            20                  25                  30
Asp Val Ala Glu Ala Tyr Arg Asn Thr Asp Thr Leu Ser Phe Asn Glu
        35                  40                  45
Phe Val Gln Ala Met Met Arg Ala Cys Gly Asn Thr Glu Ser Cys Val
    50                  55                  60
Lys Thr Met Tyr Lys Pro Leu Pro Lys Asp Lys Pro Gly Phe Pro Asn
65                  70                  75                  80
Pro His Gly Lys Pro Leu Ala Thr Leu Ala Arg Gln Met His Ile His
                85                  90                  95
Gln Leu Tyr Pro Gly Asp Asn Leu Asp Phe Leu Glu Lys Gln Phe Leu
            100                 105                 110
```

```
Asp Trp Val Glu Pro Arg Leu Thr Leu Asp Ala Leu Arg Arg Glu Cys
        115                 120                 125
Pro Tyr Ala Ile Gln Ser Gly Pro Pro Ala Val Thr Lys Asp Asp Gly
    130                 135                 140
Ile Val Leu Pro Leu Met Gln Trp Cys Ser Asp Tyr Phe Thr Arg Ala
145                 150                 155                 160
Gly Gln Arg Ala Tyr Phe Gly Pro Ala Leu Asp Gly Ile Asp Pro Lys
                165                 170                 175
Leu Pro Gln Thr Phe Ile Val Phe Asp Glu Leu Ser Trp Gln Val Leu
            180                 185                 190
Tyr Gln Tyr Pro Glu Phe Leu Ala Gly Lys Met Lys Ser Ala Arg Asn
        195                 200                 205
Ala Ile Gln Arg Ala Leu Lys Lys Tyr Ile Gln Leu Pro Gln Glu Ser
    210                 215                 220
Arg Gln Gly Asp Ala Trp Phe Thr Lys Ala Met Glu Asn Glu Met Arg
225                 230                 235                 240
Ala Leu Gly Ile Ser Glu Asp Asp Ile Ala Thr Met Leu Val Thr Ile
                245                 250                 255
Tyr Trp Gly Tyr Gly Pro Ala Ile Leu Leu Thr Asp Ser Ile Glu Ala
            260                 265                 270
Ser
```

<210> 32511
<211> 204
<212> PRT
<213> A.fumigatus

<400> 32511

```
Gln Leu Arg Ile Asn Thr Asn Thr Arg Lys Ala Ala Phe Trp Leu Leu
1               5                   10                  15
Thr Tyr Ile Leu His Tyr Gly Pro Glu His Tyr Val Asp Ile Ile Arg
            20                  25                  30
Gln Glu Thr Leu Pro Ala Phe Phe Pro Asp Lys Ser Ile Pro Asp Leu
        35                  40                  45
Asn Tyr Leu His Asp Asn Cys Pro His Leu Asp Ala Met Trp Asn Glu
    50                  55                  60
Thr Ile Arg Leu Ser Ala Tyr Ser Ala Ser Val Arg Phe Val Thr Ser
65                  70                  75                  80
Asp Thr Ile Ile Gly Gly Lys Ile Leu Arg Lys Gly Asn Arg Leu Met
                85                  90                  95
Ile Pro Tyr Arg Gln Leu His Phe Asp Glu Ser Ile Phe Gly Val Asp
            100                 105                 110
Tyr Pro Val Glu Glu Phe Arg His Glu Arg Phe Met Gln Lys Gly Arg
        115                 120                 125
Asn Leu Thr Arg Ser Asp Asn Trp Arg Pro Phe Gly Gly Gly Thr Thr
    130                 135                 140
Gln Cys Pro Gly Arg Tyr Val Ala Lys Arg Phe Val Leu Leu Phe Val
145                 150                 155                 160
Ala Met Leu Leu Arg Arg Phe Asp Val Glu Leu Val Thr Thr Arg Ile
                165                 170                 175
Pro Ala Ala Glu Glu Gly Lys Pro Val Leu Gly Ile Met Ser Ile Lys
            180                 185                 190
Asp Gly Glu Asp Val Leu Val Arg Val Arg Pro Arg
        195                 200
```

<210> 32512
<211> 223
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (201)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32512
Asp Asn Met Lys Ile Ser Ala Thr Ala Val Val Leu Leu Ala Gly Leu
1 5 10 15
Ala Ala Gly Ala Pro Thr Lys Thr Ile Gln Ser Lys Phe Glu Lys Arg
20 25 30
Gln Phe Gly Thr Gly Thr Asp Gly Leu Gly Ala Leu Ala Ser Leu Phe
35 40 45
Pro Thr Leu Gly Gly Gly Gly Ser Ser Thr Ser Ser Gly Leu Gly Ala
50 55 60
Leu Ala Ser Leu Ile Pro Gly Leu Gly Gly Ser Ser Ser Gly Ser Gly
65 70 75 80
Phe Ser Leu Pro Gly Phe Thr Leu Pro Thr Ser Ile Pro Gly Leu Gly
85 90 95
Ser Leu Gly Ser Leu Gly Ser Ser Gly Ser Ser Gly Ala Ser Gly Leu
100 105 110
Ser Gly Leu Ser Gly Leu Ser Gly Leu Ser Gly Leu Ser Gly Leu Gly
115 120 125
Gly Leu Ser Gly Leu Asn Gly Leu Gly Ser Ser Thr Thr Gly Ser Asn
130 135 140
Ala Glu Ala Ser Thr Ser Gly Thr Ala Ala Thr Asn Ser Asn Ser Asn
145 150 155 160
Ser Gly Gly Ala Leu Phe Gly Leu Leu Gly Gly Glu Phe Pro Leu Phe
165 170 175
Pro Arg Gln Pro Ser Arg Leu Leu Arg Tyr Ser Asp His Val Ala Lys
180 185 190
Arg Gly Leu Leu Arg Ser Met Thr Xaa Asn Gly Val Lys Thr Lys Asp
195 200 205
Pro Cys His Pro Ser Pro Leu Ser Ser Pro Val Gly Pro Pro Asn
210 215 220

<210> 32513
<211> 770
<212> PRT
<213> A.fumigatus

<400> 32513
Gly Ile Thr Asp Ser Ser Phe Leu Ser Ile Gly Tyr Ser Gly Val Ser
1 5 10 15
Leu Phe Val Ser Pro Asn Met His Ile Val Ala Val Val Met Leu Arg
20 25 30
Asn Asn Val Ile Pro Gly Cys His Val Met Glu Lys Glu Ser Phe Met
35 40 45
Ser Gln Glu Val Ala Ser Leu Leu Asn Glu Ser Phe Ile Pro Ile Lys
50 55 60
Val Asp Arg Glu Glu Arg Pro Asp Ile Asp Asp Val Tyr Met Asn Tyr
65 70 75 80

```
Val Gln Ala Thr Thr Gly Ser Gly Gly Trp Pro Leu Ser Val Phe Leu
                85                  90                  95
Thr Pro Asn Leu Glu Pro Val Phe Gly Gly Thr Tyr Trp Pro Gly Pro
            100                 105                 110
Asn Ser Ser Thr Leu Ser Arg Gln Asp Thr Val Gly Phe Val Asp Ile
        115                 120                 125
Leu Glu Lys Leu Arg Asp Val Trp Lys Thr Gln Gln Gln Arg Cys Leu
    130                 135                 140
Asp Ser Ala Lys Glu Ile Thr Arg Gln Leu Arg Glu Phe Ala Glu Glu
145                 150                 155                 160
Gly Thr His Ser Gln Gln Gly Asp Arg Gln Ala Gly Glu Asp Leu Asp
                165                 170                 175
Ile Glu Leu Leu Glu Glu Ala Tyr Gln His Phe Ala Ser Arg Tyr Asp
            180                 185                 190
Thr Val Asn Gly Gly Phe Ser Arg Ala Pro Lys Phe Pro Thr Pro Ala
        195                 200                 205
Asn Leu Ser Phe Leu Leu Arg Leu Lys Thr Tyr Pro Ser Ala Val Ser
    210                 215                 220
Asp Ile Val Gly Gln Glu Glu Cys Asp Arg Ala Ala Ala Met Ala Val
225                 230                 235                 240
Ser Thr Leu Ile Ser Met Ala Arg Gly Gly Ile Arg Asp His Ile Gly
                245                 250                 255
His Gly Phe Ala Arg Tyr Ser Val Thr Ala Asp Trp Ser Leu Pro His
            260                 265                 270
Phe Glu Lys Met Leu Tyr Asp Gln Ala Gln Leu Leu Asp Val Tyr Val
        275                 280                 285
Asp Ala Phe Lys Ile Thr His Asn Pro Glu Leu Leu Gly Ala Val Tyr
    290                 295                 300
Asp Leu Ala Thr Tyr Leu Thr Thr Ala Pro Ile Gln Ser Pro Val Gly
305                 310                 315                 320
Ala Phe His Ser Ser Glu Asp Ala Asp Ser Leu Pro Thr Pro Asn Asp
                325                 330                 335
Thr Glu Lys Arg Glu Gly Ala Phe Tyr Val Trp Thr Leu Lys Glu Leu
            340                 345                 350
Thr Gln Val Leu Gly Gln Arg Asp Ala Gly Val Cys Ala Arg His Trp
        355                 360                 365
Gly Val Leu Pro Asp Gly Asn Ile Ala Pro Glu His Asp Pro His Asp
    370                 375                 380
Glu Phe Met Asn Gln Asn Val Leu Ser Ile Lys Val Thr Pro Ser Lys
385                 390                 395                 400
Leu Ala Arg Glu Phe Gly Leu Ser Glu Glu Glu Val Val Lys Ile Ile
                405                 410                 415
Lys Ser Ala Lys Gln Lys Leu Arg Glu Tyr Arg Glu Lys Thr Arg Val
            420                 425                 430
Arg Pro Asp Leu Asp Asp Lys Val Ile Val Ala Trp Asn Gly Leu Ala
        435                 440                 445
Ile Gly Ala Leu Ala Lys Cys Ser Ala Leu Phe Glu Glu Ile Glu Ser
    450                 455                 460
Ser Lys Ala Val Gln Cys Arg Glu Ala Ala Ala Arg Ala Ile Asn Phe
465                 470                 475                 480
Ile Lys Glu Asn Leu Phe Glu Lys Ala Thr Gly Gln Leu Trp Arg Ile
                485                 490                 495
Tyr Arg Asp Gly Ser Arg Gly Glu Thr Pro Gly Phe Ala Asp Asp Tyr
            500                 505                 510
Ala Tyr Leu Ile His Gly Leu Leu Asp Met Tyr Glu Ala Thr Tyr Asp
        515                 520                 525
```

```
Asp Ser Tyr Leu Gln Phe Ala Glu Gln Leu Gln Ser Met Phe His Asp
    530                 535                 540
Arg Gly Ser Phe Gly Arg Thr Ile Leu Thr Gln Ala Glu Tyr Leu Asn
545                 550                 555                 560
Asp Asn Phe Leu Ala Tyr Val Gly Ser Thr Pro Ala Gly Tyr Tyr Ser
                565                 570                 575
Thr Pro Ser Thr Met Thr Pro Gly Met Pro Gly Pro Leu Leu Arg Leu
            580                 585                 590
Lys Thr Gly Thr Glu Ser Ala Thr Pro Ser Ile Asn Gly Val Ile Ala
        595                 600                 605
Arg Asn Leu Phe Arg Leu Ser Ala Leu Leu Glu Glu Lys Glu Phe Arg
    610                 615                 620
Thr Leu Ala Arg Gln Thr Cys Leu Ser Phe Ser Leu Glu Ile Leu Gln
625                 630                 635                 640
His Pro Phe Leu Phe Val Gly Leu Leu Asp Val Ile Val Gly Leu Gln
                645                 650                 655
Pro Thr Pro Arg Ser Val Thr Gly Val Phe Cys Thr Ala Asn Leu Pro
            660                 665                 670
Gln Ser Val Thr Leu Glu Gly Thr Asp Arg Leu Ile Asn Lys Pro Glu
        675                 680                 685
Glu Pro Val Ser Val Arg Asp Met Ile Ile Lys Lys Ile Arg Ser Glu
    690                 695                 700
Ala Gly Ser Thr Met Val Thr Ser Ala Thr Val Thr Ser Leu Val Asp
705                 710                 715                 720
Ile Arg Pro Ser His Leu Gly Asp Phe Val Gly Asn Gln Ser Phe Trp
                725                 730                 735
Leu Arg Thr Arg Asn Pro Leu Leu Lys Glu Leu Lys Pro Ser Gly Thr
            740                 745                 750
Val Lys Asn Tyr Leu Met Val Cys Glu Ser Gly Arg Cys Thr Met Val
        755                 760                 765
Asp Val
    770
```

<210> 32514
<211> 141
<212> PRT
<213> A.fumigatus

<400> 32514

```
Ala His Cys Asp Ile Cys Ile Ser Leu Tyr Gln Lys Ser Val Pro Leu
1               5                   10                  15
Thr Lys Leu Met Leu Gly Leu Gly Arg Pro Arg Leu Lys Ala Arg Pro
            20                  25                  30
Ser Leu Leu Asp Leu Ile Ala Ser Arg Gly Val Val Asp Leu Ser Glu
        35                  40                  45
Ser Lys Pro Ser Ser Pro Pro Ala Thr Asp Glu Leu Pro Pro Leu Pro
    50                  55                  60
Val Ser Pro Thr Ser Thr Thr Ser Ser Ser Ser Ser Ser Asn Ser Asn
65                  70                  75                  80
Ile Glu Leu Ala Ser Ser Pro Pro Ser Ser Ser Ile His Thr Pro Val
                85                  90                  95
Val Arg Ile Met Ala Pro Ser Gly Lys Asp Lys Thr Gly Glu Asp Gln
            100                 105                 110
His Gly Ile Ile Phe Ser Ile Ser Gly Pro Val Val Val Ala Glu His
        115                 120                 125
Met Ile Gly Cys Ala Met Tyr Glu Leu Val Gly His Tyr
```

130 135 140

<210> 32515
<211> 267
<212> PRT
<213> A.fumigatus

<400> 32515
Gly Tyr His Ser Gly Ile Arg Gly Asp Arg Tyr Ser Ser Ala Ser Thr
1 5 10 15
Leu Gly Arg Thr Val Thr Gly Asn Tyr Asp Ser Asn Val Phe Leu Phe
20 25 30
His Pro Leu Ala Gly Leu Thr Val Gly Asp Pro Val Met Arg Thr Gly
35 40 45
Lys Pro Leu Ser Val Glu Leu Gly Pro Gly Leu Leu Glu Thr Ile Tyr
50 55 60
Asp Gly Ile Gln Arg Pro Leu Lys Glu Ile Ala Ala His Ser Lys Gly
65 70 75 80
Ile Tyr Ile Pro Arg Gly Ile Ala Val Asn Ala Leu Asp Arg Lys Lys
85 90 95
Lys Trp Asp Phe Lys Pro Gly Lys Phe Lys Val Gly Asp His Ile Thr
100 105 110
Gly Gly Asp Ile Trp Gly Thr Val Phe Glu Asn Ser Leu Phe Asn Asp
115 120 125
His Lys Ile Leu Leu Pro Pro Arg Ala Arg Gly Thr Ile Thr Arg Ile
130 135 140
Ala Pro Ala Gly Gln Tyr Thr Val Glu Glu Lys Leu Leu Glu Ile Glu
145 150 155 160
Phe Asn Gly Gln Lys Ser Glu His Gly Met Met His Ser Trp Pro Val
165 170 175
Arg Val Pro Arg Pro Val Asn Glu Lys Leu Pro Ser Asp Ala Pro Phe
180 185 190
Ile Val Gly Gln Arg Val Leu Asp Ser Leu Phe Pro Ser Val Gln Gly
195 200 205
Gly Thr Val Cys Ile Pro Gly Ala Phe Gly Cys Gly Lys Thr Val Ile
210 215 220
Ser Gln Ser Val Ser Lys Phe Ser Asn Ser Asp Ile Ile Val Tyr Val
225 230 235 240
Gly Cys Gly Glu Arg Gly Asn Glu Met Ala Glu Val Leu Met Asp Phe
245 250 255
Pro Glu Val Arg Asp Ser Arg Pro Leu Leu Arg
260 265

<210> 32516
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32516
Leu Thr Gly Ile Leu Leu Leu Leu Gln Cys Arg Val Gly His Asp Gln
1 5 10 15
Leu Val Gly Glu Val Ile Arg Leu Asp Gly Asp Lys Ala Thr Ile Gln
20 25 30
Val Tyr Glu Glu Thr Gly Thr Ala Pro His Leu His Trp Asp Glu Leu
35 40 45
Leu Leu Ala Thr Met Thr Leu Thr Phe Ser Ser Phe Thr Leu

50 55 60

<210> 32517
<211> 82
<212> PRT
<213> A.fumigatus

<400> 32517
Leu Ser Ile Asp Val Glu Gly Arg Lys Glu Pro Ile Met Lys Arg Thr
1 5 10 15
Cys Leu Ile Ala Asn Thr Ser Asn Met Pro Val Ala Ala Arg Glu Ala
20 25 30
Ser Ile Tyr Thr Gly Ile Thr Ile Ala Glu Tyr Phe Arg Asp Gln Gly
35 40 45
Lys Asn Val Ala Met Met Ala Asp Ser Ser Ser Arg Trp Ala Glu Ala
50 55 60
Leu Arg Glu Leu Ser Gly Arg Leu Gly Lys Asp Cys Cys His Thr Arg
65 70 75 80
Val Ser

<210> 32518
<211> 280
<212> PRT
<213> A.fumigatus

<400> 32518
Ile Ile Cys Arg Ile Arg Asn Leu His Arg Thr Gly Arg Met Phe Pro
1 5 10 15
Gln Ala Arg Ser Gln Val Glu Leu Phe His His Val Leu Glu Thr Ala
20 25 30
Thr Val Lys His Val Arg Ser Ile His His Pro Leu Ile Ala Thr Pro
35 40 45
Asn Asp Ile Tyr Ala Glu Ser Pro Asn Ser Phe Tyr Val Thr Asn Asp
50 55 60
His Tyr Tyr Arg Glu Gly Tyr Gly Arg Leu Ile Glu Asp Leu Ile Pro
65 70 75 80
Ala Ala Lys Trp Ser Ser Ile Val His Val Leu Ile Gln Asp Leu Lys
85 90 95
Ser Lys Asp Ala Asp Lys Gly Ile Asp Ala Thr Val Ala Leu Thr Gly
100 105 110
Leu His Asn Asn Asn Gly Leu Gly His Gly Arg Ser Lys Asp Glu Met
115 120 125
Leu Val Val Ser Cys Met Ser Gly Thr Leu Tyr Arg Ala Arg Ser Asn
130 135 140
Ser Asp Asn Arg Thr Ile Ser Val Phe Asp Glu Ile His Pro Gly Gly
145 150 155 160
Gln Ile Asp Asn Pro Thr Tyr Tyr Ala Asp Pro Tyr Arg Thr Ala Ala
165 170 175
Asp Asp Ala Ser Gly Tyr Ile Leu Ala Gly Met Ala Arg Pro Ile Asp
180 185 190
Leu Ser Lys His Tyr Asn Asp Pro Asn Ala Lys Asp Gly Ala Ile Val
195 200 205
Trp Tyr Val Arg Pro Lys Thr Gly Thr Ser Glu Ser Gly Asp Gln Phe
210 215 220
Thr Glu Trp Glu Ser Ser Val Leu Phe Glu Asp Asp Gly Thr Leu Ile

```
225                 230                 235                 240
Arg Thr Ala Ser Thr Gly Leu Leu Val Pro Ser Glu Thr Lys Pro Gly
                245                 250                 255
Glu Arg Lys Lys Ala Trp Leu Phe Val Thr Gly Phe Val Ser Glu Ser
            260                 265                 270
Val Ile Ala Val Glu Val Asp Leu
        275                 280
```

<210> 32519
<211> 112
<212> PRT
<213> A.fumigatus

<400> 32519

```
Leu Ile Phe Gln Ser Tyr Gly Gly His Tyr Gly Pro Glu Phe Ala Ser
1               5                   10                  15
Tyr Ile Gln Glu Gln Asn Ala Ala Ile Lys Ala Gly Thr Val Ser Gly
            20                  25                  30
Glu Asn Ile Asn Leu Val Ala Leu Gly Val Asn Asn Gly Trp Thr Asp
        35                  40                  45
Ser Ala Ile Gln Glu Lys Ala Tyr Ile Glu Tyr Ser Tyr Asn Asn Thr
    50                  55                  60
Tyr Lys Gln Leu Ile Asn Ser Ser Asp Arg Thr Arg Leu Leu Ser Val
65                  70                  75                  80
Tyr Asn Ser Gln Cys Leu Pro Ala Ile Gln Lys Cys Ala Lys Thr Gly
                85                  90                  95
Thr Asn Ala Asp Cys Arg Asn Ala Asp Ser Val Cys Tyr Ser Asn Asn
            100                 105                 110
```

<210> 32520
<211> 103
<212> PRT
<213> A.fumigatus

<400> 32520

```
Ser Arg Ile Trp Ser Pro Arg Leu Thr Met Trp Cys Gln Lys Trp Leu
1               5                   10                  15
Phe Ala Phe Leu Val Ala Gly Ala Ser Ala Ala Pro Ala Ser Thr Ala
            20                  25                  30
Lys Asp Ser Ile Ser Ser Val Val Lys Asn Gly Val Lys Tyr Thr Val
        35                  40                  45
Phe Glu His Ala Ala Thr Gly Ala Arg Met Glu Phe Val Lys Asn Ser
    50                  55                  60
Gly Ile Cys Glu Thr Thr Pro Gly Val Asn Gln Tyr Ser Gly Tyr Leu
65                  70                  75                  80
Ser Val Gly Asp Asn Met Asn Met Trp Phe Trp Tyr Val Leu His Asn
                85                  90                  95
Ser Met Thr Thr Cys Arg Ala
            100
```

<210> 32521
<211> 336
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (149)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32521
Tyr Gly Gln Gly Lys Met Gly Leu His Arg Gln Gly Lys Trp Pro Lys
1 5 10 15
Gly Lys Met Pro Lys Ala Asp Ala Gly Val Pro Glu Ser Leu Tyr Ser
20 25 30
Arg Arg Glu Gly Thr Ser Gln Thr Leu Gly Arg Arg Thr Trp Trp Ser
35 40 45
His Trp Gly Ile Leu Val Gly Lys Asn Gly Leu Ala Ala Ala Val Gly
50 55 60
Asn Pro Asn Val Tyr Gly Gln Gly Leu Lys Asp Trp Leu Gln Cys Arg
65 70 75 80
Thr Ile Tyr Ile Met Arg Gln Phe Ser Phe Arg Gly Gly Ala Gly Asp
85 90 95
Ala Glu Trp Phe Pro Gly Val Gly Gly Gly Asn Asn Gly Ala Cys Met
100 105 110
Glu Ala Ala Gln Lys Glu Leu Gly Asn Asp Ala Leu Leu Ser Ser Thr
115 120 125
Val Val Ser Met Glu Arg Pro Ala Asp Arg Leu His Arg Ile Leu Val
130 135 140
Arg Thr Pro Thr Xaa Tyr Gln Leu Ile Arg Ala Lys Lys Thr Ile Ile
145 150 155 160
Thr Thr Pro Pro Lys Val Glu Asn Leu Val Asn Phe Asp Leu Asp Asp
165 170 175
Thr Glu Arg Gly Val Phe Gly Gln Phe Glu Asn Ala Phe Tyr Tyr Thr
180 185 190
Thr Val Val Arg Val Ala Gly Leu Pro Ala Gly Leu Asp Ile Ile Asn
195 200 205
Arg Ala Ala Asp Thr Pro Tyr Asn Ile Pro His Leu Pro Gly Val Tyr
210 215 220
Ala Met Leu Pro Ser Arg Val Pro Asp Ile Tyr Thr Ile Phe Tyr Gly
225 230 235 240
Gly Gly Glu Ala Lys Thr Glu Asp Glu Val Lys Lys Ser Ile Arg Asp
245 250 255
Gly Val Met Met Leu Arg Glu Ala Gln Phe Thr Pro Ser Glu Pro Glu
260 265 270
Ile Leu Ala Ile Ser Asn His Ser Pro Phe Ala Leu Phe Val Ser Ala
275 280 285
Asp Gln Ile Ala Lys Gly Phe Tyr Arg Asp Leu Tyr Ala Leu Gln Gly
290 295 300
Gln Arg Asn Thr Tyr Tyr Thr Gly Ala Ala Phe His Thr His Asp Ser
305 310 315 320
Ala Ala Val Trp Ser Phe Thr Asp Asn Leu Leu Thr Thr Met Phe Ala
325 330 335

<210> 32522
<211> 242
<212> PRT
<213> A.fumigatus

<400> 32522
Leu His Ala Glu Pro Asn Leu Cys Arg Phe Phe Glu Ala Arg Asn Asn
1 5 10 15

```
Pro Lys Gln Ala Pro Leu Ala Ala Trp Phe Asn Gly Gly Pro Gly Cys
            20                  25                  30
Ser Ser Met Ile Gly Leu Phe Gln Glu Asn Gly Pro Cys His Phe Val
        35                  40                  45
Asn Gly Glu Asp Thr Pro Ser Leu Asn Lys Tyr Ser Trp Asn Asn Tyr
    50                  55                  60
Ala Asn Met Leu Tyr Ile Asp Gln Pro Ile Gly Val Gly Phe Ser Tyr
65                  70                  75                  80
Gly Thr Asn Asp Val Thr Ser Thr Glu Thr Ala Ala Pro Tyr Val Trp
                85                  90                  95
Lys Leu Leu Gln Ala Phe Tyr Ala Gln Phe Pro Glu Tyr Glu Ser Arg
            100                 105                 110
Asp Phe Gly Ile Phe Thr Glu Val Gly Pro Val Ser Asp Leu Ala Ile
        115                 120                 125
Ala Glu Ile Ala Asp Leu Pro Val Leu Arg Trp Thr Leu Trp Pro Arg
    130                 135                 140
Ile Arg Val Val Tyr Ser Gly Ala Lys Arg Arg His Gln Ser Arg Asn
145                 150                 155                 160
Gly Ile Trp Arg Lys Tyr Gln Pro Gly Arg Thr Gly Ser Gln Gln Arg
                165                 170                 175
Leu Asp Arg Leu Gly His Pro Arg Lys Gly Val Tyr Arg Val Gln Leu
            180                 185                 190
Gln Gln His Leu Gln Thr Ala Tyr Gln Leu Val Arg Ser His Ala Ser
        195                 200                 205
Ala Glu Arg Leu Gln Gln Pro Met Ser Ala Ser Asp Pro Glu Met Arg
    210                 215                 220
Gln Asp Arg His Gln Arg Arg Leu Gln Lys Cys Arg Gln Arg Leu Leu
225                 230                 235                 240
Leu Gln
```

<210> 32523
<211> 87
<212> PRT
<213> A.fumigatus

```
<400> 32523
Ala Ile Ser Cys Ile Ile Gly Trp Ile Ser Val Ser Ala Leu His Gln
1               5                   10                  15
Val Ala Asn Val Gly Cys Leu Arg Ser Arg Leu Gln Arg Thr Lys Gln
            20                  25                  30
Asp Ile Arg Pro Met Trp Phe Thr Asn Phe Phe Cys Ile Val Ala Ala
        35                  40                  45
Arg Arg Phe Leu Phe Leu Ile Leu Leu Thr Ile Ser Tyr Tyr Tyr Phe
    50                  55                  60
Arg Ser Arg Ile Ile Asn Asn Thr Leu Ile Leu Asp Lys Leu Cys Ala
65                  70                  75                  80
Thr Ser Asn Tyr Arg Pro Leu
                85
```

<210> 32524
<211> 333
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (77)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32524
Val Thr His Pro Gly Ser Cys Thr Ala His Gln Lys Leu Ile Asp Ala
1 5 10 15
Arg Asn Leu Ile Asp Gly Val Ser Val Thr Ser Leu His His Ser Ile
20 25 30
Ala His Pro Phe Pro Pro Ala Val Gly Gly Val Leu Ile Gln Pro Gly
35 40 45
Pro Leu Pro Asp Cys Ser Leu Ser Gln Leu Thr Ala Glu Val Leu Gln
50 55 60
Ser Arg Leu His Pro Val Leu Lys Glu Leu Gln Leu Xaa Asp Glu Leu
65 70 75 80
His Glu Thr Gln Pro Leu Asp Phe Trp Val Leu Ile Gly Ser Ile Ser
85 90 95
Gly Thr Leu Gly His Ala Asp Gln Ala Leu Thr Ala Ala Met Ser Glu
100 105 110
Arg Met Ala Thr Leu Val Arg Gln Arg Arg Ser Arg Gly Arg Pro Ala
115 120 125
Ser Leu Val His Leu Gly Glu Ile Ser Gly Ile Asp Ile Pro Ala Asp
130 135 140
Gly Ala Arg Pro Trp Trp Gly Pro Thr Ala Val Thr Gln Arg Asp Ile
145 150 155 160
Asp Glu Val Leu Ser Glu Ala Val Leu Cys Gly Gly Pro Asn Ser Phe
165 170 175
Ala Arg Ser Ala Glu Phe Ile Val Gly Leu Arg His Gln Ser Leu Gln
180 185 190
Thr Gly Arg Met Ala Gly Pro Val Pro Lys Leu Trp Pro Phe Tyr Ser
195 200 205
Tyr Thr Ala Thr Ala Ser Gln Gly Gln Lys Pro Pro Ser Leu Pro Glu
210 215 220
Arg Arg Gln Ser Ala Lys Asp Leu Val Ala Ala Ala Thr Ser Arg Glu
225 230 235 240
Glu Lys Ala Glu Ala Ile Ala Ala Cys Leu Met Glu Lys Ile Arg Ala
245 250 255
Arg Leu Lys Leu Asn Ala Asp Ala Pro Leu Ser Ser Asp Thr Leu Ile
260 265 270
Ser Glu Leu Gly Val Asp Ser Leu Val Ala Val Glu Leu Arg Arg Trp
275 280 285
Phe Ala Lys Gln Leu Ala Val Asp Met Ser Ile Val Leu Ile Leu Ser
290 295 300
Gly Ala Ser Val Gly Glu Leu Ala Asn Ala Ala Ala Ser Lys Leu Cys
305 310 315 320
Asn Gly Asn Ser Glu Leu Cys Thr Ser Ser Asn Leu Val
325 330

<210> 32525
<211> 122
<212> PRT
<213> A.fumigatus

<400> 32525
Arg Phe Leu Cys Arg Ser Pro Ser Pro Pro Pro Gln Tyr Asp Asn Phe
1 5 10 15

```
Gly Arg Arg Val Asn Thr Arg Glu Tyr Arg Tyr Arg Lys Arg Leu Glu
            20                  25                  30
Asp Glu Arg His Lys Leu Val Glu Lys Ala Met Lys Thr Ile Pro Asn
        35                  40                  45
Tyr His Pro Pro Ser Asp Tyr Arg Arg Pro Thr Lys Thr Gln Glu Lys
    50                  55                  60
Val Tyr Val Pro Val Asn Asp Tyr Pro Glu Ile Asn Phe Ser Met Ile
65                  70                  75                  80
Thr Asn Pro Leu Thr Pro Asn Arg Ser Cys Ile Val Ser Phe Leu Ala
                85                  90                  95
Leu Cys Ser Ser Arg Ala Arg Glu Thr Ser Pro Tyr Asp Asp Val Ser
            100                 105                 110
Lys Ala Arg Phe Leu Leu Thr Leu Ala Thr
        115                 120
```

<210> 32526
<211> 194
<212> PRT
<213> A.fumigatus

<400> 32526

```
Asn Ser Lys Ser Met Cys Pro His Leu Asp Gly Ser Ser Asp Thr Asn
1               5                   10                  15
Glu Asp Asn Gln Ala Ala Ser Ile Pro Glu Gly Gln Asn Glu Leu Lys
            20                  25                  30
Arg Asn Gln Leu Arg Glu Leu Ala Ala Leu Asn Gly Thr Leu Arg Asp
        35                  40                  45
Asp Glu Asn Gln Ala Cys Gln Asn Cys Lys Phe Phe His Lys Ala Leu
    50                  55                  60
Leu Val Glu Leu Leu Ile Leu Thr Arg Ala Gly Gly Gln Ile Gly His
65                  70                  75                  80
Arg Lys Tyr Asp Cys Pro Glu Gln Arg Asn Phe Thr Ala Asn Ile Ile
                85                  90                  95
Cys Arg Val Cys Gly Asn Ala Gly His Met Ala Arg Asp Cys Pro Asp
            100                 105                 110
Arg Gln Arg Gly Ser Asp Trp Arg Asn Gly Gly Gly Tyr Gly Gly Gly
        115                 120                 125
Arg Arg Ala Ile Gly Gln Gly Asp Ala Val Asp Arg Glu Met Glu Val
    130                 135                 140
Ser Ser Met Trp Phe Leu Lys Tyr Arg Pro Thr Asn Ala Asp Trp Tyr
145                 150                 155                 160
Ser Asn Leu Cys Lys Asn Cys Pro Val Val Leu Gln Ala Gln Thr Ala
                165                 170                 175
Ser Leu Leu Ala Gly Ser Arg Leu Val Pro Ile Thr Val Thr Met Ile
            180                 185                 190
Val Thr
```

<210> 32527
<211> 174
<212> PRT
<213> A.fumigatus

<400> 32527

```
Pro Leu Leu Leu Asp Tyr Leu Ala Ser Ile Ala Leu Leu Ser Leu Asn
1               5                   10                  15
```

```
Asn His His Glu Leu Thr Leu Ser Ser Leu Leu Pro Phe Lys Val Gly
            20                  25                  30
Leu Leu Ile Gly Pro Arg Gly Asn Thr Leu Lys Lys Met Glu Ala Glu
        35                  40                  45
Ser Gly Ala Lys Ile Ala Ile Arg Gly Lys Gly Ser Val Lys Glu Gly
    50                  55                  60
Lys Gly Arg Ser Asp Ala Ala His Ala Ser Asn Gln Glu Glu Asp Leu
65                  70                  75                  80
His Cys Leu Ile Met Ala Asp Thr Glu Glu Lys Val Asn Lys Ala Lys
                85                  90                  95
Lys Leu Val His Asn Val Ile Glu Thr Val Ser Leu Cys Ala Leu Thr
            100                 105                 110
Trp Thr Asp Leu Gln Thr Leu Thr Arg Ile Thr Arg Leu Pro Arg Phe
        115                 120                 125
Pro Lys Ala Arg Thr Asn Ser Arg Glu Thr Ser Cys Glu Ser Trp Leu
    130                 135                 140
Leu Ser Thr Val Pro Ser Val Met Met Arg Ile Arg Leu Val Arg Thr
145                 150                 155                 160
Val Ser Phe Ser Ile Lys Leu Ser Ser Leu Asn Cys Leu Tyr
                165                 170
```

<210> 32528
<211> 167
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (11)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 32528
Ala Val Gly Gly Leu Glu Val Lys Met Ala Xaa Lys Lys Arg Val Ala
1               5                   10                  15
Arg Arg Arg Leu His Leu Ser Ala Glu Ile Met Gly Ser Ser Val Ala
            20                  25                  30
Glu Thr Gln Phe Glu Val Arg Leu Cys Leu Cys Cys Ile Ile Phe Asn
        35                  40                  45
Arg Phe Ile Asn Phe Ser Ser Phe Thr Ala Asp Pro Pro Ala Asp Gly
    50                  55                  60
Val Lys Arg Arg Lys Lys Arg Asn Arg Trp Gly Asp Ala Gln Glu Asn
65                  70                  75                  80
Lys Ala Ala Gly Leu Met Gly Leu Pro Thr Met Ile Met Ala Asn Phe
                85                  90                  95
Thr Asn Glu Gln Leu Glu Ala Tyr Thr Leu His Leu Arg Ile Glu Glu
            100                 105                 110
Ile Ser Gln Lys Leu Arg Ile Asn Asp Val Val Pro Ala Asp Gly Asp
        115                 120                 125
Arg Phe Val Phe Val Pro Leu Ser Ser Phe Phe Phe Phe Phe Phe Phe
    130                 135                 140
Phe Phe Phe Leu Phe Arg Arg Glu Leu Thr Phe Ser Val Gln Ile Pro
145                 150                 155                 160
Ile Ala Ala Ser Ala Val Arg
                165
```

<210> 32529

<211> 196
<212> PRT
<213> A.fumigatus

<400> 32529
Leu Val Gln Gln Leu Met Gln Glu Leu Ser Gly Gly Ala Pro Gly Pro
1 5 10 15
Asp Gly Gln Pro Pro Arg Arg Ile Glu Ala Gly Pro Asp His Gly Tyr
20 25 30
Asp Asp Arg Asp Val Lys Pro Trp Gln Arg Gly Pro Pro Pro Ser Asp
35 40 45
Val Ala Pro Trp Gln Gln Arg Gly Arg Asp Asn Arg Ser Arg Asp Asp
50 55 60
Tyr Gly Ser Arg Asp Gln Gly Ser Ala Pro Pro Trp Ala Ala Gln Ser
65 70 75 80
Arg Gly Gly Asp Tyr Gly Tyr Gly Ser His Ala Gly Gly Tyr Gly Ala
85 90 95
Pro Gly Ala Gly Ala Ala Thr Ser Gly Ala Ala Pro Trp His Gln Gln
100 105 110
Ala Pro Pro Pro Pro Pro Gly Gly Ala Ser Ala Tyr Gly Tyr Gly Ala
115 120 125
Tyr Pro Gly Tyr Gly Ala Ala Val Pro Gly Met Gly Ala Pro Gly Ala
130 135 140
Pro Pro Gly Leu Ser Val Pro Pro Pro Pro Pro Gly Met Pro Ser Met
145 150 155 160
Tyr Tyr Gly Ser Gly Ser Pro Pro Pro Pro Pro Pro Gly Glu Gly Pro
165 170 175
Pro Pro Pro Val Cys Ser Pro Phe Gly Pro Thr Asp Gln Leu Glu Ile
180 185 190
Arg Gln Asp Cys
195

<210> 32530
<211> 65
<212> PRT
<213> A.fumigatus

<400> 32530
Arg Cys Arg Trp Val Asp Thr Pro Met Ile His Arg Ser Ile Glu Ser
1 5 10 15
Gly Thr Leu Asp Ser Gln Phe Ala Met Ile Pro Leu Gly Arg Pro Ala
20 25 30
Val Ala Asp Glu Ile Ala His Ala Ile Leu Phe Leu Ala Ser Pro Met
35 40 45
Ser Ser Tyr Met Cys Gly Glu Ala Met Val Val Asp Gly Gly Leu Ser
50 55 60
Ala
65

<210> 32531
<211> 228
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE

<222> (7)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32531
Pro Gln Ser Asn Gly Met Xaa Gly Val Pro Gly Leu Trp Thr Pro Glu
1 5 10 15
Gln Ala Ala Gly Trp Lys Arg Val Val Asp Ala Val His Glu Gln Gly
20 25 30
Gly Tyr Ile Tyr Cys Gln Leu Trp His Ala Gly Arg Ala Thr Ile Pro
35 40 45
Gln Met Thr Gly Ser Pro Ala Val Ser Ala Ser Ala Thr Val Trp Asp
50 55 60
Ser Pro Thr Glu Cys Tyr Ser His Pro Pro Val Gly Ser Thr Glu Pro
65 70 75 80
Val Arg Tyr Ala Asp His Pro Pro Ile Glu Leu Thr Ile Pro His Leu
85 90 95
Lys Gln Thr Ile Arg Asp Tyr Cys Asn Ala Ala Lys Thr Ala Met Glu
100 105 110
Ile Gly Phe Asp Gly Val Glu Leu His Ala Gly Asn Gly Tyr Leu Pro
115 120 125
Glu Gln Phe Leu Ser Ser Asn Val Asn Lys Arg Thr Asp Glu Tyr Gly
130 135 140
Gly Ser Pro Glu Lys Arg Cys Arg Phe Val Leu Glu Leu Met Asp Glu
145 150 155 160
Leu Ala Ala Thr Val Gly Glu Asp Asn Leu Ala Ile Arg Leu Ser Pro
165 170 175
Phe Gly Leu Phe Asn Gln Ala Arg Gly Glu Gln Arg Val Glu Thr Trp
180 185 190
Thr Phe Leu Cys Glu Ser Leu Lys Lys Ala His Pro Asn Leu Ser Tyr
195 200 205
Val Ser Phe Ile Glu Pro Val Ser Phe Pro Tyr Asn Tyr Asn Pro Trp
210 215 220
Leu Pro Gln Leu
225

<210> 32532
<211> 114
<212> PRT
<213> A.fumigatus

<400> 32532
Pro Val Gln Arg Tyr Glu Gln Ile Phe Ser Tyr Glu Glu Lys Asp Asn
1 5 10 15
Phe Leu Arg Ser Trp Gly Leu Ser Asp Val Asp Leu Ser Ser Phe Arg
20 25 30
Lys Ile Phe Gly Thr Thr Pro Phe Phe Ser Ala Gly Gly Trp Asp Gln
35 40 45
Ser Asn Ser Trp Gly Val Leu Glu Glu Gly Arg Tyr Asp Ala Leu Leu
50 55 60
Tyr Gly Arg Tyr Phe Thr Ser Asn Pro Asp Leu Val Glu Arg Leu Arg
65 70 75 80
Lys Gly Ile Pro Phe Thr Pro Tyr Asp Arg Ser Arg Phe Tyr Gly Pro
85 90 95
Phe Glu Asp Asn Ala Lys Cys Tyr Val Asp Tyr Pro Pro Ala Thr Ala
100 105 110
Ser Ser

<210> 32533
<211> 103
<212> PRT
<213> A.fumigatus

<400> 32533
Arg Phe Arg Trp Pro Asp Gln Ser Ser Ser Thr Ala Lys Met Thr Ile
1 5 10 15
Arg Lys Leu Asp Gly Glu Glu Ser Met Leu Phe Gln Pro Leu Glu Ile
20 25 30
Ala Asn Gly Arg Ile Arg Leu Ser His Arg Val Val His Ala Pro Met
35 40 45
Thr Arg Asn Arg Gly Val Pro Leu Asn Pro Thr Ser Thr Pro Glu Gln
50 55 60
Pro Asn Arg Ile Trp Tyr Pro Gly Asp Leu Met Val Gln Tyr Tyr Arg
65 70 75 80
Gln Arg Ala Thr Pro Gly Gly Leu Ile Ile Ser Glu Gly Val Pro Pro
85 90 95
Ser Leu Glu Val Gly Thr Phe
100

<210> 32534
<211> 69
<212> PRT
<213> A.fumigatus

<400> 32534
Pro Gln Cys Leu Leu Pro Val Arg Arg Ser Val Ser Leu Ala Ala Arg
1 5 10 15
Leu Pro Ala Asp Leu Ser Lys Phe Ser Phe Leu Phe Ile Val Ile Ile
20 25 30
Leu Leu Arg Arg Leu Val Leu Val Val Thr Gln Asn Asn Cys Ile Pro
35 40 45
Val Leu Phe Gly Asn Gly Gln Glu Ser Gln Leu Glu Leu Thr Arg Leu
50 55 60
Ser Glu Ser Ser His
65

<210> 32535
<211> 221
<212> PRT
<213> A.fumigatus

<400> 32535
Thr Phe Trp Arg Ala Leu His Cys Ala Lys Ser Ala Ala Met Ser Ser
1 5 10 15
Gly Ser Glu Asp Trp Leu Gly Ala Gly Gly Gly Ala Ala Thr Asp Asp
20 25 30
Asp Ile His Thr Gln Arg Pro Arg Tyr Ala Ser Gly Asn Asn Glu Asn
35 40 45
Leu Asn Glu Asp Ala Asp Tyr Ser Met Ile Met Ser Tyr Pro Ala Glu
50 55 60
Glu Glu Asp Tyr Tyr Ala Leu Leu Gly Leu Arg Arg Thr Pro Thr Pro
65 70 75 80

```
Ser Asp Ala Glu Ile Arg Ser Ala Tyr Arg Asn Leu Thr Leu Ser Phe
                85                  90                  95
His Pro Asp Lys Gln Pro Ala Glu Leu Arg Glu Ala Ala Glu Arg His
            100                 105                 110
Phe Ala Arg Ile Gln Glu Ala Tyr Glu Thr Leu Leu Asp Pro Lys Lys
        115                 120                 125
Arg Val Val Tyr Asp Leu Leu Gly Ala Glu Gly Val Arg Arg Glu Trp
    130                 135                 140
Gly Ala Gly Gly Ala Met Gly Arg Gly Gly Glu Ala Glu Ser Gln Ile
145                 150                 155                 160
Gly Val Arg Ala Gln Thr Pro Glu Glu Phe Arg Gly Trp Phe Leu Glu
                165                 170                 175
Thr Met Lys Lys Arg Glu Arg Lys Val Leu Asn Ser Leu Val Gln Ser
            180                 185                 190
Arg Val Gly Ser Phe Pro Leu Ala Ala Leu Leu Arg Leu Leu Arg Asp
        195                 200                 205
Ile Val Leu Thr Val Pro Trp Asn Gly Asn Arg Ala Arg
    210                 215                 220
```

<210> 32536
<211> 132
<212> PRT
<213> A.fumigatus

```
<400> 32536
Gln Gly Ser Leu Thr Leu Gly Val Asp Ala Ser Asn Met Ile Glu Val
1               5                   10                  15
Asp Glu Asn Ala Gly Glu Val Tyr Ile His Ile Pro Ser Pro Ser Leu
            20                  25                  30
Ser Ser Tyr Ala Ile Arg Tyr Ser Phe Lys Ala Pro Leu Pro Thr Pro
        35                  40                  45
Lys Val Leu Phe Gly Lys Glu Ala Asp Glu Glu Asp Asp Glu Asp Glu
    50                  55                  60
Ala Pro Asp Gly Arg Ser Thr Gln Gln Lys Val Asn Ser Tyr Gln Glu
65                  70                  75                  80
Ala Gln Gly Pro Glu Ile Thr Phe Asn Ala Gly Ile Ser Gly Asn Leu
                85                  90                  95
Arg Arg Ser Phe Arg Lys Met Gln Phe Gln Phe Glu Asp Gly Glu Thr
            100                 105                 110
Met Thr Arg Ala Val Cys Ser Glu Met Tyr Cys His Pro Gln Pro Cys
        115                 120                 125
Arg Thr Val Pro
    130
```

<210> 32537
<211> 64
<212> PRT
<213> A.fumigatus

```
<400> 32537
Pro Asp Pro Gly Asp Asp Arg Leu Thr Thr Asn Met Arg Ile Ser Ile
1               5                   10                  15
Ser Gly Pro Asp Gly Val Cys Trp Lys Ile Ala Ile Thr Phe Arg Pro
            20                  25                  30
Leu Ser His Gly Ala Lys Leu Thr Pro Leu Phe Ser Ser Pro Gly Arg
        35                  40                  45
```

```
Leu Ser Asp His Phe Pro Lys Ala Ala Glu Arg Glu Ser Ala Val Pro
    50                  55                  60

<210> 32538
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32538
Ser Leu Trp Arg His Arg Arg Ser Arg Ser Asn Ala Ile Lys Arg Cys
1               5                   10                  15
Ser Ser Pro Arg Lys Ser Val Ala Asn Ser Met Gln Ala Thr Ile Leu
            20                  25                  30
Gln Ala Cys Ile Thr Gly Phe Leu Ala Leu Ala Val Gly Leu Cys Phe
        35                  40                  45
Ser Lys Leu Pro Asn Leu Asn Gln Val Gln Tyr Ser Val Arg
    50                  55                  60

<210> 32539
<211> 218
<212> PRT
<213> A.fumigatus

<400> 32539
His Arg Lys Lys Arg Leu Ile Asn Pro Glu Gly Asp Gly Trp Pro His
1               5                   10                  15
Arg Thr Gly Ser His Gly Met Met Glu Ser Arg Ser Ile Ser Arg Val
            20                  25                  30
Ala Val Asp Ser Lys Ser Ile Gln Pro Ala Ser Ser His Ala Ala Glu
        35                  40                  45
Ser Pro Ala Val Pro Asp Ser Ser Phe Ala Thr Pro Ile Glu Leu Ser
    50                  55                  60
Ser Thr Pro Pro Gln Pro Leu Pro Glu Arg Pro Asp Asn Met Arg Arg
65                  70                  75                  80
Thr Ser Trp Ser Gln Gly Ala Asn Gly Tyr Val Glu Tyr Ile Arg Pro
                85                  90                  95
Arg Trp Gln Pro Asp Ser Glu Val Thr Asn Cys Pro Ile Cys Gly Thr
            100                 105                 110
Thr Phe Ser Phe Trp Tyr Arg Lys His His Cys Arg Lys Cys Gly Arg
        115                 120                 125
Val Val Cys Ala Ala Cys Ser Pro His Arg Ile Thr Ile Pro Arg Gln
    130                 135                 140
Phe Ile Val Arg Pro Pro Glu Ser Asn Arg Ser Pro Ala Val Asn Leu
145                 150                 155                 160
Ile Pro Pro Arg Ala Ala Gln Val Ile Asn Val Asp Gly Asp Asp Thr
                165                 170                 175
Ser Gln Ser Pro Gly Gly Asp Gln Ser Ser Ser Arg Arg Trp Arg Gly
            180                 185                 190
Gly Thr Thr Leu Gln Pro Val Cys Ala Arg Pro Glu Pro Gly Thr Ala
        195                 200                 205
Ser Gly Leu Pro Cys Gly Ser Arg Arg Trp
    210                 215

<210> 32540
<211> 330
<212> PRT
```

<213> A.fumigatus

<400> 32540
Met Gly Thr Ile His Arg Asn Arg Pro Val Ala Ile Asn Pro Ala Leu
1 5 10 15
Gly Gly Gly Glu Glu Val Arg Leu Cys Asn Pro Cys Val Pro Asp Pro
20 25 30
Asn Pro Glu Pro Leu Arg Gly Tyr Pro Ala Val Arg Gly Gly Gly Glu
35 40 45
Gln Gly Thr Asn Trp Gly Arg Gly Ser Pro Ser Gln Gly Arg His Arg
50 55 60
Ser Tyr His Ser Met Ser Thr Ser Thr Arg Gln Phe Pro Tyr Asp Ala
65 70 75 80
Phe Val Ser Phe Val Asn Leu Arg Asp Arg Leu Ser Asn Thr Asp Thr
85 90 95
Ile Ser Ser Phe Gln Thr Glu Ser Ser Ser Ser Arg Leu Asn Arg Arg
100 105 110
Ser Ile Ser Ser Asn Gly Tyr Thr Gly Leu Gly Gly Ala Leu Gly Gly
115 120 125
Val Phe Ser Ser Ser Leu Gln Glu Arg Pro Met Arg Tyr Gly Ser Leu
130 135 140
Pro Gly Ser Gln Tyr Ser Gly Arg His Val Ser Ser Ser Ala Arg Pro
145 150 155 160
Tyr Leu Gly Tyr Phe Arg Ala His Arg His Leu Pro Pro Pro Ala Pro
165 170 175
Glu Gly Thr Ser Val Ser Thr Gly Gly Ser Phe Ser Thr Thr Ser Asp
180 185 190
Asp His Asp Ser His Arg Arg Val Ser Tyr Pro Ala Arg His His Val
195 200 205
Asp Glu Ser Asp Ile Cys Pro Ile Cys Ser Asp Glu Leu Pro Pro Leu
210 215 220
Gly Glu Asn Gly Asn Glu Asp Ala Arg Glu Ala His Ile Arg Glu Cys
225 230 235 240
Ile Glu Ser His Gly Arg Gly Thr Arg Ser Thr Ser Arg Gly Gly Ser
245 250 255
Pro Val Ala Ala Ser Pro Val Pro Val Arg Met Leu Ala Phe Thr Ala
260 265 270
Thr Glu Lys Asp Cys Leu Gly Gln Asp Gly Ala Val Gln Glu Cys Thr
275 280 285
Ile Cys Met Glu Asp Tyr Glu Val Gly Gln Pro Leu Val Arg Leu Glu
290 295 300
Cys Leu Cys Lys Phe His Lys Arg Cys Ile Val Glu Trp Phe Glu Arg
305 310 315 320
Lys Lys Glu Cys Pro Val His Lys Val Ala
325 330

<210> 32541
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32541
Leu Ser Leu Asp Leu Gln Gln Leu Ala Ser Tyr Met Ala Tyr Arg Cys
1 5 10 15
Arg Asn Leu Leu Phe Thr Pro Glu Trp Ile Phe His Leu Ala Thr Leu
20 25 30

```
Pro Ser Thr Cys Leu Pro Asn Pro Thr Lys Leu Gln Leu Val Asp Gly
        35                  40                  45
Val Leu Gln Asp Gln Asn Leu Pro Phe Leu Val His Cys Leu
    50                  55                  60

<210> 32542
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32542
Leu Pro Leu Asp His Ala Val Ser Ala Ser Thr Val Tyr Leu Ile Arg
1               5                   10                  15
Ser Leu Gly Thr Val Trp Gly Val Ala Ile Thr Ser Ala Ile Ile Gln
            20                  25                  30
Asn Thr Leu Arg Ser Gly Leu Ser Lys Ala Leu Ser Gly Ile Pro Asp
        35                  40                  45
Lys Trp Lys Val Thr Ser Leu Lys Trp Ser Ile Ser Val Arg
    50                  55                  60

<210> 32543
<211> 63
<212> PRT
<213> A.fumigatus

<400> 32543
Ile Ile Glu Gln Ile Arg His Ser Val Ser Ala Ile Gln Asp Leu Pro
1               5                   10                  15
Pro Asp Ile Gln Met Ala Ala Arg Leu Val Tyr Tyr Arg Gly Ile Arg
            20                  25                  30
Leu Ser Phe Ala Ala Ala Ala Gly Phe Ala Phe Leu Ala Thr Ile Ala
        35                  40                  45
Ala Leu Phe Ser Arg Gly Lys Gly Leu His Arg Gly Ser Ser Ala
    50                  55                  60

<210> 32544
<211> 312
<212> PRT
<213> A.fumigatus

<400> 32544
Trp Asn Ser Arg Ser Leu Ser Ala Ile Met Ser Asn Val Phe Leu Ser
1               5                   10                  15
Gly Phe Asp Gly Thr Ile Thr Ala Ser Thr Tyr Ala Val Ile Ser Ser
            20                  25                  30
Glu Phe Asn Ala Ala Asn Thr Ala Ser Trp Leu Thr Thr Ser Tyr Leu
        35                  40                  45
Ile Thr Ser Thr Ala Phe Gln Pro Leu Tyr Gly Arg Phe Ser Asp Ile
    50                  55                  60
Phe Gly Arg Arg Val Ser Phe Phe Thr Ala Thr Ile Thr Phe Ile Ile
65                  70                  75                  80
Gly Cys Leu Gly Cys Gly Ile Ala Asp Asp Ile Val Leu Leu Asn Met
                85                  90                  95
Met Arg Ala Leu Thr Gly Ile Gly Gly Gly Gly Leu Met Thr Met Gly
            100                 105                 110
Lys Leu Pro Ser Pro Pro Ala Gly Gly Pro Pro His Ser His Gly Pro
```

```
        115                 120                 125
Ala Thr Ile Val Asn Ser Asp Leu Ile Pro Phe Lys Arg Arg Gly Met
    130                 135                 140
Tyr Gln Ala Leu Gln Asn Gly Met His Gly Phe Gly Ser Ile Cys Gly
145                 150                 155                 160
Ala Ser Phe Gly Gly Ser Ile Val Asp Thr Val Gly Trp Arg Trp Cys
                165                 170                 175
Phe Leu Val Gln Val Pro Ile Gly Leu Phe Ala Leu Ile Thr Gly His
            180                 185                 190
Leu Val Leu His Leu Pro Arg His His Gln Thr Phe Gly Gln Gly Arg
        195                 200                 205
Gly Phe Arg Ala Ile Leu Arg Tyr Val Asp Leu Ser Gly Ala Leu Leu
    210                 215                 220
Leu Ile Leu Gly Leu Ser Ser Gln Leu Ile Gly Leu Ser Leu Gly Gly
225                 230                 235                 240
Asn Glu Leu Pro Trp Ser Ser Ile Trp Val Ile Leu Ser Leu Met Ala
                245                 250                 255
Ser Leu Phe Leu Leu Gly Leu Phe Met Leu Val Glu Glu Lys Thr Pro
            260                 265                 270
Ala Val Pro Leu Ile Pro Ser Arg Met Leu Arg Gly Val Met Pro Val
        275                 280                 285
Ser Thr Gln Ile Ala Asn Val Cys Val Gly Met Ala Ala Tyr Ala Val
    290                 295                 300
Ser Gly Pro Pro Leu Gly Tyr Ile
305                 310
```

<210> 32545
<211> 131
<212> PRT
<213> A.fumigatus

<400> 32545

```
Ala Thr Ala Tyr Gln Arg Gln Phe Leu Phe Thr Leu Pro Leu Leu Phe
1               5                   10                  15
Gln Val Val Leu Leu Asp Thr Pro Thr Lys Ala Gly Ala Arg Leu Ala
            20                  25                  30
Ile Pro Ser Leu Ala Ala Pro Ile Gly Ser Leu Ile Ala Gly Val Val
        35                  40                  45
Met Ser Arg Trp Gly Arg Leu Ala Tyr Leu Val Arg Ala Gly Cys Leu
    50                  55                  60
Leu Met Cys Ile Gly Asn Leu Leu Val Met Ser Ile Lys Phe His Asp
65                  70                  75                  80
Ala Gly Trp Lys Tyr Leu Thr Tyr Val Ile Pro Ala Ser Leu Gly Gln
                85                  90                  95
Gly Ile Val Tyr Pro Gly Ile Leu Phe Thr Phe Leu Ala Ala Phe Asp
            100                 105                 110
His Thr Gly Lys Leu Gly Ser Leu Ser Tyr Arg Asn Val Arg Ala His
        115                 120                 125
Asp Phe His
    130
```

<210> 32546
<211> 354
<212> PRT
<213> A.fumigatus

<400> 32546
Asn Arg Cys Val Arg Ser Val Asp Pro Cys His Arg Gln Lys Gly Pro
1 5 10 15
Leu Pro Pro Val Arg Cys Ala His Ser Thr Asn Glu Phe Leu Ile Ala
20 25 30
Phe Gly Gln Ser Thr Thr Phe Leu Leu Arg Ser Leu Gly Gln Ala Leu
35 40 45
Lys Pro Leu Leu Asn Ser Asp Cys Glu Ile Ile Val Ser Ile Leu Cys
50 55 60
His Glu Gly Ser Ala Ala Ala Trp Val Ala Leu Ala Lys Asp Leu Gly
65 70 75 80
Ile Ala Ile Lys Trp Trp Ala Pro Pro Pro Gly Asp Asp Pro Val Leu
85 90 95
Ser Leu Asp Thr Leu Arg Pro Leu Leu Thr Pro Lys Thr Arg Leu Val
100 105 110
Ala Cys Asn His Val Ser Asn Val Val Gly Thr Ile His Pro Ile Arg
115 120 125
Gln Val Ala Asp Leu Val His Arg Ile Pro Gly Ala Val Leu Val Val
130 135 140
Asp Gly Val Ala Trp Ala Pro His Arg Pro Ile Asp Val Lys Ala Leu
145 150 155 160
Asp Val Asp Phe Tyr Cys Phe Ser Trp Tyr Lys Val Phe Gly Pro His
165 170 175
Val Ala Gln Leu Tyr Gly Arg Arg Ser Ala Gln Lys Arg Ala Leu Ala
180 185 190
Gly Ile Ser His Phe Phe Leu Ser Glu Met Pro Gly Leu Asp Trp Arg
195 200 205
Leu Arg Leu Gly Ala Asn Ser Phe Glu Leu Glu Glu Ala Leu Val Pro
210 215 220
Ile Thr Arg Tyr Leu Lys Arg Val Gly Trp Asp Asn Ile Ile Ala Gln
225 230 235 240
Glu Thr Val Leu Gln Asp Val Phe Leu Ala Tyr Leu Arg Arg Arg Pro
245 250 255
Arg Val Phe Arg Ile Phe Gly Glu Gln Ser Ser Asp Pro Ala Lys Arg
260 265 270
Val Pro Val Ile Thr Phe Glu Val Ile Gly His Ser Ser Thr Val Val
275 280 285
Ala Asn Lys Val Asn Gln Arg Gly Arg Phe Arg Val Val Ser Gly Asn
290 295 300
Cys Trp Ala Pro Arg Pro Thr His Asp Val Leu Gly Leu Gly Ala Glu
305 310 315 320
Gly Leu Ile Arg Val Ser Phe Val His Tyr Asn Thr Val Ala Glu Val
325 330 335
Gln Glu Phe Cys Thr Glu Leu Asp Ser Val Leu Glu Thr Leu Asn Ala
340 345 350
Gly Ile

<210> 32547
<211> 437
<212> PRT
<213> A.fumigatus

<400> 32547
Ile Arg Ala Lys Thr His Val Tyr Ala Leu Val Arg Gly Ser Ser Glu
1 5 10 15

```
Asn Gln Ala Arg Glu Arg Leu Val Gln Lys Ala Ile Ser Ala Gly Trp
            20                  25                  30
Trp Gln Asp Ala Tyr Arg Thr Arg Leu His Val Trp His Gly Asp Leu
        35                  40                  45
Thr Gln Pro Gln Leu Gly Leu Ser Gln Leu Gln Trp Gln Met Leu Gln
    50                  55                  60
Gly Lys Ala Ser Pro Ser Ile Asp Ala Ile Ile His Asn Gly Ala Lys
65                  70                  75                  80
Val His Tyr Ser Gln Asp Tyr Glu Thr Leu Lys Lys Thr Asn Val Ser
                85                  90                  95
Pro Thr Val Glu Leu Leu Lys Ala Val His Asp Arg Glu Glu Pro Leu
            100                 105                 110
His Ser Phe Val Phe Val Ser Gly Gly Gln Gln Leu Ser Phe Asp Asp
        115                 120                 125
Arg Glu Asp Glu Lys Asn Ala Ala Lys Ser Leu Lys Gly Ser Gly Tyr
    130                 135                 140
Ala Arg Ser Lys Ala Val Ser Glu Gln Ile Val Arg Arg Phe Ala Asn
145                 150                 155                 160
Gln Lys Gly Ser Lys Ala Arg His Val Arg Ile Val Lys Pro Gly Phe
                165                 170                 175
Ile Ile Gly Asp Ala Glu Arg Gly Leu Ala Asn Gln Ser Asp Phe Ile
            180                 185                 190
Trp Arg Leu Ile Ala Ala Cys Val Glu Leu Gly Phe Tyr Asn Gly Asp
        195                 200                 205
Glu Ala Asp Ser Trp Leu Phe Ile Ser Asp Ile Thr Arg Val Ala Gln
    210                 215                 220
Val Ile Leu His Ser Val Phe Glu Asp Asp Ser Gln Pro Val Thr Lys
225                 230                 235                 240
Val Leu Asp Gly Leu Arg Phe Lys Thr Leu Trp Ala Leu Leu Gln Asp
                245                 250                 255
Lys Phe Gly Phe Glu Leu Gln Pro Leu Ser Arg Arg Glu Trp Leu Ala
            260                 265                 270
Arg Leu Lys His Ser Val Ala Thr Lys Lys Glu Lys His Val Leu Phe
        275                 280                 285
Pro Leu Leu Tyr Leu Leu Glu Ala Asp Glu Glu Pro Ile Gly Val Phe
    290                 295                 300
Gln Gly Pro Leu Asp Pro Thr Thr Gly Val Glu Ala Ala Leu His Ala
305                 310                 315                 320
Asn Ile Thr His Leu Val His Ser Arg Phe Leu Val Gly Ala Asp Pro
                325                 330                 335
Val Leu Thr Pro Val Thr Ser Val Ala Ser Pro Ala Pro Val Thr Asp
            340                 345                 350
Ala Ile Asp Val Gln Ser Leu Arg Glu Gln Phe Pro Ala Leu His His
        355                 360                 365
Gly Val Val Pro Phe Asn Asn Ala Ala Gly Thr Val Val His Arg Glu
    370                 375                 380
Ala Ala Glu Ser Thr His Arg Tyr Met Thr Ser Phe Pro Tyr Glu Leu
385                 390                 395                 400
Gly Arg Asp Asp Pro Ala Ser Ala Ala Lys Thr Gln Arg Leu Gln Asp
                405                 410                 415
Arg Phe Ala Glu Leu Ala Ala Phe Met Asn Ala Asp Pro Asp Glu Ile
            420                 425                 430
Gly Ala Ser Val Pro
        435

<210> 32548
```

<211> 401
<212> PRT
<213> A.fumigatus

<400> 32548

```
Leu Asn Gly His Ile Glu Leu Gly Ala Lys Asp Leu Phe Val Gly Asp
1               5                  10                  15
Met Asp Leu Arg Asn Gly Arg Thr Tyr Phe Ile Arg Val Gly Ile His
            20                  25                  30
Glu Cys Cys Glu Leu Gly Glu Ser Ile Leu Lys Ser Leu Arg Leu Arg
        35                  40                  45
Gly Thr Arg Arg Ile Ile Thr Thr Gln Leu Ile Arg Glu Gly Gly His
    50                  55                  60
Val Ser Val Cys Ala Leu Arg Ser Leu Pro Met His His Arg Ser Gly
65                  70                  75                  80
Ser Ile Val Glu Arg Tyr Asp Ala Val Val Gln Arg Gly Lys Leu Leu
                85                  90                  95
Ser Gln Ala Leu His Ile Asn Gly Ile Arg His Gly Arg Arg Thr Arg
            100                 105                 110
Asp Arg Cys Asp Arg Ser Gln His Arg Val Gly Pro Asp Glu Lys Pro
        115                 120                 125
Arg Val Asp Gln Met Gly Asp Val Cys Val Gln Gly Arg Phe Asn Pro
    130                 135                 140
Ser Arg Arg Val Gln Gly Ser Leu Glu His Pro Asn Arg Leu Leu Ile
145                 150                 155                 160
Gly Leu Gln Gln Val Glu Gln Arg Lys Gln Asp Met Phe Phe Leu Leu
                165                 170                 175
Gly Gly His Gly Val Phe Glu Ala Cys Gln Pro Phe Ser Pro Arg Glu
            180                 185                 190
Gly Leu Glu Leu Lys Ser Glu Leu Val Leu Glu Lys Gly Pro Gln Ser
        195                 200                 205
Phe Glu Ser Gln Ala Ile Gln His Leu Arg Asp Gly Leu Arg Val Val
    210                 215                 220
Leu Glu His Ala Val Gln Asn His Leu Arg Asp Ala Gly Asp Val Arg
225                 230                 235                 240
Asp Lys Glu Pro Ala Val Cys Phe Val Pro Val Val Glu Thr Gln Phe
                245                 250                 255
His Thr Arg Ser Asp Gln Ser Pro Asp Lys Val Gly Leu Ile Arg Lys
            260                 265                 270
Ala Ser Leu Ser Val Ala Asp Asp Glu Pro Arg Phe Asp Asp Ala Tyr
        275                 280                 285
Met Pro Ser Leu Gly Ala Leu Leu Ile Gly Glu Ser Thr Asp Asn Leu
    290                 295                 300
Phe Gly His Gly Leu Gly Ser Cys Ile Ala Gly Ser Phe Gln Arg Leu
305                 310                 315                 320
Gly Arg Ile Leu Leu Val Leu Ala Val Val Glu Ala Lys Leu Leu Pro
                325                 330                 335
Ala Arg Asp Lys Asn Lys Ala Val Gln Gly Leu Phe Ala Val Met Asp
            340                 345                 350
Cys Phe Gln Gln Leu Asp Arg Gly Arg Asp Ile Arg Phe Leu Gln Cys
        355                 360                 365
Leu Val Val Leu Thr Val Val His Leu Gly Ala Val Val Asp Asp Arg
    370                 375                 380
Val Asp Thr Arg Arg Cys Phe Ala Leu Gln His Leu Pro Leu Lys Leu
385                 390                 395                 400
Thr
```

<210> 32549
<211> 63
<212> PRT
<213> A.fumigatus

<400> 32549
Pro Ala Pro Trp Pro Leu Thr Cys Gly Arg Val Ser Ala Leu Ser Leu
1 5 10 15
Gln Ile Ser Leu His Ala Asn Glu Thr Ala Ala Ile Thr Gly Asp Glu
20 25 30
Leu Arg Thr Gly Pro Cys Glu Pro Ile Thr Phe Ile Phe Ala Arg Gly
35 40 45
Ser Thr Glu Pro Gly Leu Leu Val Cys Ile Leu Tyr Ala Ser Pro
50 55 60

<210> 32550
<211> 116
<212> PRT
<213> A.fumigatus

<400> 32550
Thr Asp Gly Arg Lys Gly Ile Thr Thr Gly Pro Gly Val Cys Asn Ala
1 5 10 15
Leu Lys Leu Ser Arg Pro Gly Gln Val Ala Cys Gln Gly Val Gly Pro
20 25 30
Ala Tyr Ile Ala Asp Leu Ala Ser Asn Phe Leu Pro Gln Gly Thr Ser
35 40 45
Gln Val Ala Ile Asp Glu Ala Ala Gly Leu Phe Lys Leu Ala Ala Ser
50 55 60
Lys Cys Pro Asp Thr Lys Ile Val Ala Gly Gly Tyr Arg Tyr Phe Pro
65 70 75 80
Leu Leu Phe Ile Thr Ala Ile Glu Thr Ala Lys Lys Lys Asn Cys Val
85 90 95
Val Arg Glu Gln Leu Ser Cys Thr Val Pro Ser Glu Ile Ser Pro Ala
100 105 110
Thr Ser Arg Ile
115

<210> 32551
<211> 92
<212> PRT
<213> A.fumigatus

<400> 32551
Lys Lys Lys Leu Cys Ser Gln Gly Ala Ala Val Met His Gly Ala Ile
1 5 10 15
Arg Asn Leu Pro Ser Asn Val Gln Asn Met Ile Lys Gly Val Val Leu
20 25 30
Phe Gly Asp Thr Arg Asn Lys Gln Asp Gly Gly Arg Ile Pro Asn Phe
35 40 45
Pro Thr Asp Arg Thr Lys Ile Tyr Cys Ala Phe Gly Asp Leu Val Cys
50 55 60
Asp Gly Thr Leu Ile Ile Thr Pro Ala His Leu Ser Tyr Gly Asp Asp
65 70 75 80

```
Val Pro Ser Ala Thr Ser Phe Leu Leu Ser Lys Val
                85                  90

<210> 32552
<211> 230
<212> PRT
<213> A.fumigatus

<400> 32552
Gly Gly Ala Met Leu Leu Thr Arg Val Gly Ser Met Ala Val Trp Arg
1               5                  10                  15
Glu Ile Arg Cys Arg Val Thr Ser Thr Leu Arg His Gly Asp Thr Gly
            20                  25                  30
Thr Ile Thr Thr His Leu Ile Trp Ser Thr Arg Val His Phe Leu Pro
        35                  40                  45
Leu Phe Leu Gly Ile Arg Ile Gln Leu Thr Arg Ala Ala Phe Asn Phe
    50                  55                  60
Ser His Met Ile Thr Glu Leu Ser Phe Gly Pro His Tyr Pro Thr Leu
65                  70                  75                  80
Leu Asn Pro Leu Asp Lys Thr Ile Ala Thr Thr Glu Asp His Tyr Tyr
                85                  90                  95
Lys Tyr Gln Tyr Phe Leu Ser Ile Val Pro Thr Ile Tyr Ser Lys Gly
            100                 105                 110
Asn Leu Ala Leu Asp Thr Tyr Ala Asn Ala Pro Pro Ser Asn Arg Arg
        115                 120                 125
Gly Lys Asn Leu Val Phe Thr Asn Gln Tyr Ala Val Thr Ser Gln Ser
    130                 135                 140
Ser Val Ile Pro Glu Ser Pro Tyr Phe Ile Pro Gly Leu Phe Phe Lys
145                 150                 155                 160
Tyr Asn Ile Glu Pro Ile Leu Leu Leu Ile Ser Glu Glu Arg Thr Ser
                165                 170                 175
Phe Leu Ser Leu Leu Val Arg Leu Val Asn Thr Val Ser Gly Val Met
            180                 185                 190
Val Thr Gly Gly Trp Leu Tyr Gln Met Ser Gly Trp Leu Gly Glu Leu
        195                 200                 205
Leu Gly Arg Arg Arg Arg Arg Gly Lys Ser Glu Gly Val Leu Thr Gly
    210                 215                 220
Arg His Glu Ala Asp Asp
225                 230

<210> 32553
<211> 379
<212> PRT
<213> A.fumigatus

<400> 32553
Gly His Ser Thr Arg Phe Val Ser Ser Gln His Glu Pro Leu Thr Cys
1               5                  10                  15
Ser Ser Ala Glu Leu Ala Arg Arg Asp Val Ser Ala Ile Val Leu Glu
            20                  25                  30
Ser Gly Arg Ser Gln Val Met Val Gln Met Leu Thr Ile Val Val Val
        35                  40                  45
Ile Leu Ala Lys Thr Lys Pro Phe Tyr Thr Ala Pro Ser Pro Arg Gly
    50                  55                  60
Gly Gln Trp Thr Val Leu Val Leu Leu Val Cys Thr Phe Leu Ser Ile
65                  70                  75                  80
```

```
Ser Glu Phe Arg Thr Trp Leu Lys Gly Thr Glu Lys Gln His Phe Ser
                85                  90                  95
Val Glu Lys Gly Ile Ser His Asp Leu Gln Leu Asn Leu Asp Ile Val
            100                 105                 110
Val His Met Ser Cys Asp Met Leu Asp Val Asn Ile Gln Asp Ala Ser
        115                 120                 125
Gly Asp Arg Ile Leu Ala Gly Gln Leu Leu Lys Arg Glu Pro Thr Ser
    130                 135                 140
Trp Gln Leu Trp Met Asp Lys Arg Asn Tyr Glu Thr Tyr Gly Gly Ala
145                 150                 155                 160
His Glu Tyr Gln Thr Leu Ser Gln Glu His Ala Asp Arg Leu Ser Glu
                165                 170                 175
Gln Glu Ala Asp Ala His Val His His Val Leu Gly Glu Val Arg Arg
            180                 185                 190
Asn Pro Arg Lys Lys Phe Ala Lys Gly Pro Lys Leu Arg Arg Gly Asp
        195                 200                 205
Ala Val Asp Ser Cys Arg Ile Tyr Gly Ser Leu Glu Gly Asn Lys Val
    210                 215                 220
Gln Gly Asp Phe His Ile Thr Ala Arg Gly His Gly Tyr His Asn Asn
225                 230                 235                 240
Ala Pro His Leu Glu His Lys Ser Thr Phe Ser Pro Phe Val Pro Gly
                245                 250                 255
Tyr Ser Asn Ser Thr Asp Ala Arg Ser Leu Gln Leu Leu Ala His Asp
            260                 265                 270
His Arg Ala Leu Leu Arg Pro Ser Leu Ser Asp Pro Pro Gln Pro Pro
        275                 280                 285
Arg Gln Asn His Arg His Asn Arg Arg Pro Leu Leu Gln Val Pro Val
    290                 295                 300
Phe Pro Leu His Cys Ala Asn His Leu Leu Gln Gly Gln Pro Arg Thr
305                 310                 315                 320
Arg His Leu Arg Gln Arg Ser Ala Leu Lys Pro Pro Trp Gln Lys Pro
                325                 330                 335
Arg Leu His Gln Pro Val Arg Gly His Gln Pro Val Gln Arg Asp Ser
            340                 345                 350
Arg Lys Pro Leu Leu His Pro Arg Pro Leu Leu Gln Val Gln His Arg
        355                 360                 365
Ala His Pro Ala Ala Asp Gln Arg Gly Ala His
    370                 375
```

<210> 32554
<211> 161
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1),(3),(7),(12)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32554

```
Xaa Pro Xaa Met Asn Ala Xaa Cys Asp Asp Pro Xaa Leu Val Val Lys
1               5                   10                  15
Thr Thr Ala Pro Asp Thr Ser Asn Pro Ala Ala Asn Ala Phe Asp Asp
            20                  25                  30
Val Asp Leu Val Gly Gly Ser Phe Ala Asp His Ala Arg Arg Arg Ser
        35                  40                  45
```

```
Ile Ala Gln Gln His Ser Ser Phe Ser Thr Val Leu Ser Ser Gly Leu
    50                  55                  60
Ala Ala Phe Thr Gly Ser Tyr Gly Asn Arg Ser Arg Glu Ser Ser Thr
65                  70                  75                  80
Gln Gln His Pro Pro Ala Ala Arg Gly Ser Leu Glu Leu Leu Ser Glu
                85                  90                  95
Glu Asn Phe Asp Asp Glu Phe Asp Glu Ala Glu Phe Ala Arg Ala Gln
            100                 105                 110
Ala Glu Glu Glu Ala Arg Lys Arg Val Glu Trp Val Arg Glu Ile Lys
        115                 120                 125
Gly Lys Leu Lys Asp Trp Lys Gly Trp Arg Leu Asp Leu Val Asp Ser
    130                 135                 140
Arg Ala Gly Ala Glu Gly Ala Gly Val Gly Met Gly Glu Ile Phe Glu
145                 150                 155                 160
Ile
```

<210> 32555
<211> 124
<212> PRT
<213> A.fumigatus

<400> 32555

```
Val Leu Leu Trp Phe Asp Ile Thr Asp Arg Phe Ser Ser Cys Thr Ala
1               5                   10                  15
Ile Asn Arg Ser Pro Leu Met Leu Ala Gln Gly Thr Asp Val Thr Thr
            20                  25                  30
Ala Glu Ala Ala Val Ile Ala Lys Tyr Asn Asn Leu Ile Ala Thr Tyr
        35                  40                  45
Leu Ala Gln Phe Lys Ser Lys Asn Ser Gly Val Thr Ala Thr Val Val
    50                  55                  60
Asp Thr Gln Ala Pro Phe Asn Gln Ala Leu Asp Asn Pro Thr Ala Tyr
65                  70                  75                  80
Gly Ala Pro Asp Ala Thr Cys Tyr Asn Ser Asp Gly Thr Ser Cys Leu
                85                  90                  95
Trp Phe Asn Asp Tyr His Pro Gly Ile Ala Ile Gln Asp Leu Thr Ala
            100                 105                 110
Gln Ala Val Ala Ser Ala Leu Lys Glu Leu Phe Phe
        115                 120
```

<210> 32556
<211> 254
<212> PRT
<213> A.fumigatus

<400> 32556

```
Ser Thr Ala Leu Arg Ser Met Arg Pro Trp Asn Lys His Cys Thr Arg
1               5                   10                  15
His Cys Ala Lys Tyr Asp Asn Asn Asp Asn Asn His Asn Asn Glu His
            20                  25                  30
Arg Tyr Thr His Arg Ala Lys Val Leu His His Phe Val Ser Tyr Pro
        35                  40                  45
Lys Leu Pro Thr Glu Arg Ser Trp Ala His Pro Ala Ser Gly Asp Ser
    50                  55                  60
Tyr Ser Gln Thr Gly Phe Asp Ile Ser Ser Thr Lys Pro Ser Ala Ser
65                  70                  75                  80
```

```
Asn Pro Leu Gly Asn Pro Thr Leu Pro Gly Trp Thr Thr Ser Gly Gly
                85                  90                  95
Leu Asn Trp Val Gly Phe Leu Val Ser Lys Tyr Asn Thr Ser Leu Thr
            100                 105                 110
Leu Ser Tyr Asn Phe Ala Tyr Gly Gly Ala Thr Thr Asn Ala Ser Leu
        115                 120                 125
Val Ala Pro Tyr Thr Ser Thr Val Leu Ser Phe Ile Asp Gln Val Thr
    130                 135                 140
Glu Phe Thr Asn Ser Ile Ala Ser Lys Pro Ser Tyr Ala Pro Trp Thr
145                 150                 155                 160
Ser Gly Asn Thr Leu Val Gly Val Trp Met Gly Val Asn Asp Val Gly
                165                 170                 175
Asn Ser Tyr Trp Leu Ser Asn Ile Asp Glu Leu Leu Leu Lys Ile Met
            180                 185                 190
Asp Ser Tyr Phe Gly Gln Leu Gln Ile Leu Tyr Asp Ala Gly Val Arg
        195                 200                 205
Asn Tyr Val Leu Leu Gly Val Pro Arg Lys Ser Cys Phe Gly Ser Ile
    210                 215                 220
Ser Leu Thr Asp Ser His His Val Gln Gln Ser Thr Ala Pro His Leu
225                 230                 235                 240
Cys Leu Pro Lys Ala Pro Met Ser Leu Pro Arg Lys Arg Gln
                245                 250
```

<210> 32557
<211> 220
<212> PRT
<213> A.fumigatus

<400> 32557

```
Lys Glu Phe Ala Gly Gly Ser Glu Glu Met Gly Glu Arg Gln Arg Thr
1               5                  10                  15
Asn Ala Met Pro Gln Ala Trp Pro Arg Pro Arg Asn Met Val Ala Ser
            20                  25                  30
Gly Asn Ser Ile Ser Val Ile His Ala Asn Lys Gln Pro Ser Leu Ser
        35                  40                  45
Leu Trp Arg Tyr Phe Gly Tyr Asp Gln Asp Asn Pro Asp Glu Ser His
    50                  55                  60
Pro Leu Asn Lys His Met Lys Thr Val Ser Trp Met Gln Leu Leu Asp
65                  70                  75                  80
Pro His Ala Asp Thr Ile Tyr Ala Asn Glu Pro Glu Val Ile Pro Asp
                85                  90                  95
Glu Thr Leu Ala Thr Phe Lys Phe Asn Arg Arg Ser Ala Tyr Tyr Lys
            100                 105                 110
Lys Arg Ser Arg Trp Glu Arg Val Arg Arg Val Val Asp Glu Ala Arg
        115                 120                 125
Ala Gly Asn Phe Asp Gly Leu Ile Val Ala Thr Leu Met Glu Pro Ala
    130                 135                 140
Ser Val Leu Lys His Thr Val Pro Leu Leu Ala Gly Ser Ala Pro Val
145                 150                 155                 160
Val Val Tyr Ser Pro Thr Val Glu Pro Leu Thr Glu Leu Ala Asp Leu
                165                 170                 175
Tyr Ser Thr Pro Arg Arg Thr Ala Tyr Ile Thr Arg Lys Arg Glu Ile
            180                 185                 190
Ile Ala Gln His Ser Leu Gln Gln Ser Leu Gln Gly Ala Glu Pro Leu
        195                 200                 205
Ile Thr Asn Asn Asn Pro His Glu Pro Asp Phe Ser
```

210 215 220

<210> 32558
<211> 94
<212> PRT
<213> A.fumigatus

<400> 32558
Leu Asp Lys Asp Phe Ala Leu Asp Pro Ser Leu Leu Leu Ala Pro Thr
1 5 10 15
Ile Glu Thr Ser Arg Val Arg Ala Trp Gln Val Leu Pro Gly Arg Thr
20 25 30
His Pro Leu Met Ser Gly Arg Gly Gly Ala Glu Gly Tyr Ile Phe His
35 40 45
Ala Ile Arg Val Phe Pro Ser His Gln Asn Ile Gln Ala Ala Gly Asn
50 55 60
Pro Ser Arg Lys Lys Arg Lys Val Ala Ala Gln Gln Glu Ser Ala Thr
65 70 75 80
Pro Ala Glu Ser Gly Ser Gly Val Asp Val Glu Met Gln Ser
85 90

<210> 32559
<211> 156
<212> PRT
<213> A.fumigatus

<400> 32559
Gly Pro Gly Cys Ser Arg Asn Arg Tyr Glu Arg Leu Tyr Phe Phe Thr
1 5 10 15
Asn Leu Ser Val Lys Gln Leu Met Asn Leu Ala Pro His Cys Ser Gly
20 25 30
Leu Val Ala Asn Ile Ser Ser Arg Arg Leu Pro Ser Gly Asn Phe Pro
35 40 45
Val Leu Pro Leu Arg Thr Arg Thr Arg Gly Pro Ala Tyr Thr Leu Pro
50 55 60
Pro Leu Pro Ala Gly Val Ser Asp Ile Asp Val Pro Pro Asp Ser Glu
65 70 75 80
Ser Tyr Asp Cys Val Asp Glu Ile Leu Ser Leu Phe Arg Ala Asn Val
85 90 95
Leu Phe Arg Asn Phe Glu Ile Asn Gly Pro Ala Asp Arg Met Leu Ile
100 105 110
Tyr Gly Thr Leu Phe Ile Ser Glu Cys Leu Gly Lys Val Lys Pro Gly
115 120 125
Met Thr Ser Arg Glu Ala Glu Lys Val Leu Leu Gly Gln Glu Cys Val
130 135 140
Arg Gly Ser Ala Asn Gly His Thr Ser Gly Phe Asp
145 150 155

<210> 32560
<211> 98
<212> PRT
<213> A.fumigatus

<400> 32560
Asp Arg Asn Ala Ser Gly Asp Leu Leu Met Gly Ile Arg Gln Ala Leu
1 5 10 15

```
Ile Asn Val Ser Leu Asp His Phe Ala Ile Pro Gly Asp Val Ala Phe
            20                  25                  30
Pro Leu Asn Gln Ala Phe Glu Pro Pro Arg Asp Arg Gln Asp Ala Glu
        35                  40                  45
Thr Leu Arg Gln Tyr Val Pro Ile Ser Phe Lys Ser Leu Arg Ala Leu
    50                  55                  60
Ser Leu Met Arg Phe Asp Ser Asp Thr Ser Pro Lys Tyr Gly Arg Arg
65                  70                  75                  80
Ser Leu Phe Asp Tyr Met Leu Gly Tyr Thr Leu Ala Val Lys Gly Leu
                85                  90                  95
Pro Arg
```

<210> 32561
<211> 132
<212> PRT
<213> A.fumigatus

<400> 32561

```
Leu Gly Val Phe Glu Pro Ser Gln Ala His Val Gln Leu Gly Thr Ile
1               5                   10                  15
Val Leu Asp Arg Asp Arg His Ser Phe Thr Asp Leu Pro Pro Glu Leu
            20                  25                  30
Ser Phe Ile Phe Leu Phe Arg Tyr Val Thr Ala Thr Met Leu Leu Asp
        35                  40                  45
Ile Ser Ala Phe Ala Leu Ser Thr Thr Gly Val Leu Cys Met Leu Leu
    50                  55                  60
Cys Leu Val Val Lys Leu Phe Glu Thr Ser Pro Val Pro Lys Asn Ile
65                  70                  75                  80
Pro Trp Val Leu Ser Lys Lys Gly Phe Phe Gly Arg Ala Ala Glu Arg
                85                  90                  95
Phe Leu Gly Val Asn Pro Ile Gly Phe Ile Gln Glu Gly Tyr Gln Gln
            100                 105                 110
Val Gly Leu Cys His Ala Val Leu Trp His Ser Met Tyr Thr Gln Val
        115                 120                 125
Gly Met Ile Gly
    130
```

<210> 32562
<211> 300
<212> PRT
<213> A.fumigatus

<400> 32562

```
Met Ala Pro Pro Met Ala Lys Lys Arg Lys Val Leu Asp Ser Leu Lys
1               5                   10                  15
Asn Lys Ala Gly Arg Pro Lys Lys Lys Phe Arg Lys Gln Leu Glu Tyr
            20                  25                  30
His Ser Ser Ser Asp Glu Ala Glu Asp Glu Gln Pro Thr Asp Phe Gln
        35                  40                  45
Ala Val Asn Leu Ala Asp Ser Asp Ala Glu Glu Glu Arg Lys Pro Val
    50                  55                  60
Glu Arg Lys Pro Gln Lys Pro Ala Ser Ser Glu Thr Arg Ser Leu Gly
65                  70                  75                  80
Ala Gln Lys Lys Arg Lys Ala Glu Asp Ser Asp Asp Ser Ser Ala Ala
                85                  90                  95
```

```
Ser Glu Asn Glu Ser Asp Ala Asp Asp Asn Asn Gly Ser Asp Ser Pro
            100                 105                 110
Asp Ser Ser Asp Met Glu Asp Asp Glu Tyr Gly Asp Ser Asp Thr Ser
        115                 120                 125
Leu Pro Thr Ser Thr Asn Gly Arg Arg Arg Pro Val Ala Lys Arg Asn
    130                 135                 140
Asp Pro Thr Ala Phe Ser Thr Ser Ile Ser Lys Ile Leu Ser Thr Lys
145                 150                 155                 160
Leu Pro Ser Ser Ala Arg Ala Asp Pro Val Leu Ser Arg Ser Lys Ser
                165                 170                 175
Ala Ala Gln Thr Thr Ser Glu Leu Ala Asp Glu Lys Leu Asp Lys Gln
            180                 185                 190
Ala Arg Ala Lys Leu Arg Ala Glu Lys Lys Glu Glu Leu Asp Arg Gly
        195                 200                 205
Arg Val Arg Asp Val Met Gly Ile Glu Arg Gly Leu Thr Gly Val Val
    210                 215                 220
Ala Glu Glu Glu Lys Arg Leu Arg Lys Ile Ala Gln Arg Gly Val Val
225                 230                 235                 240
Lys Leu Phe Asn Ala Val Arg Ala Ala Gln Val Arg Gly Glu Glu Ala
                245                 250                 255
Ala Arg Glu Glu Arg Lys Lys Gly Thr Ile Gly Ile Gly Glu Arg Glu
            260                 265                 270
Lys Ala Val Asn Glu Val Ser Lys Gln Gly Phe Leu Glu Leu Ile Ser
        275                 280                 285
Gly Lys Lys Gly Lys Pro Leu Asn Ile Glu Glu Ala
    290                 295                 300
```

<210> 32563
<211> 85
<212> PRT
<213> A.fumigatus

<400> 32563

```
Phe Phe Leu Ile Gly Ala Cys Gly Gly Ser Cys Ala Cys Ser Thr Cys
1               5                   10                  15
His Val Ile Val Glu Asp Pro Glu Val Phe Asp Lys Met Glu Glu Pro
            20                  25                  30
Ser Asp Asp Glu Asn Asp Met Leu Asp Leu Ala Phe Gly Leu Thr Glu
        35                  40                  45
Thr Ser Arg Leu Gly Cys Gln Val Val Met Asn Lys Asp Leu Asp Gly
    50                  55                  60
Leu Val Val Arg Leu Pro Ser Met Thr Arg Asn Val Gln Ala Ser Asp
65                  70                  75                  80
Phe Ala Gln Lys Lys
                85
```

<210> 32564
<211> 100
<212> PRT
<213> A.fumigatus

<400> 32564

```
Glu Arg Val Leu Leu Ser Leu Leu Asp Val Gln Arg Phe Ser Leu Leu
1               5                   10                  15
Ser Ala Asp Gln Leu Lys Lys Thr Leu Phe Ala Asp Phe Val Asp Gly
            20                  25                  30
```

```
Phe Leu Ser Phe Thr Asn Ala Asn Gly Thr Leu Leu Pro Leu Phe Pro
        35                  40                  45
Cys Ser Leu Phe Ser Thr Asp Leu Gly Cys Ala Asn Ser Ile Glu Gln
    50                  55                  60
Leu His Asn Thr Ala Leu Arg Asn Leu Pro Lys Thr Leu Phe Leu Leu
65                  70                  75                  80
Cys Asn Asn Thr Ser Lys Ala Ala Leu Asp Ala His Asp Ile Ala His
                85                  90                  95
Ala Thr Thr Val
            100
```

<210> 32565
<211> 63
<212> PRT
<213> A.fumigatus

<400> 32565

```
Phe Met Ser Cys Arg Leu His Val Ser Phe Ile Asp Lys Asp Gly Gln
1               5                   10                  15
Lys His Asp Phe Glu Val Ala Glu Gly Asp Asn Leu Leu Asp Ile Ala
            20                  25                  30
Gln Ala Asn Asp Leu Glu Met Glu Gly Ser Asp Leu Leu Leu Ala Val
        35                  40                  45
Tyr Ala Thr Val Arg Leu Leu Phe Ala His Leu Asn Ser Ser Ser
    50                  55                  60
```

<210> 32566
<211> 553
<212> PRT
<213> A.fumigatus

<400> 32566

```
Asp Phe Asp Ile Ser Pro Leu Glu Leu Gln Phe Pro Leu Leu His Gln
1               5                   10                  15
Leu Arg Leu Leu Glu Asp Glu Thr Gly Ala Ser Leu His Leu Thr Ser
            20                  25                  30
Leu Lys Glu Phe Val Asp His Asn Phe Ser Val Pro Ile Asp His Phe
        35                  40                  45
His Asn Glu Ser Arg Tyr Glu Pro His Thr Arg Asp His Phe Asn Leu
    50                  55                  60
Arg Tyr Trp Phe Asp Ala Ser His Tyr Lys Glu Gly Gly Pro Val Phe
65                  70                  75                  80
Leu Ile Ala Ala Gly Glu Thr Asn Gly Arg Asp Arg Phe Pro Phe Leu
                85                  90                  95
Ser His Gly Ile Val Thr Gln Leu Ala Lys Thr Tyr Asn Gly Leu Gly
            100                 105                 110
Val Ile Leu Glu His Arg Tyr Tyr Gly Glu Ser Tyr Pro Phe Ala Asp
        115                 120                 125
Leu Thr Thr Lys Asn Ile Arg Phe Leu Ser Thr Glu Gln Ala Met Ala
    130                 135                 140
Asp Tyr Ala Tyr Phe Ala Ser Asn Val Val Phe Pro Gly Leu Glu His
145                 150                 155                 160
Leu Asn Leu Thr Ala Asp Ala Val Pro Trp Ile Gly Tyr Gly Gly Ser
                165                 170                 175
Tyr Ala Gly Ala Phe Val Ala Phe Leu Arg Lys Val Tyr Pro Glu Val
            180                 185                 190
```

```
Phe Phe Gly Val Val Ser Ser Ser Gly Val Thr Glu Ala Ile Val Asp
        195                 200                 205
Tyr Trp Gln Tyr Tyr Glu Pro Ile Arg Gln Phe Ala Pro Ser Asp Cys
    210                 215                 220
Ile Trp Ser Ile Glu Thr Phe Met Asp Ile Val Asp Thr Ile Leu Ile
225                 230                 235                 240
Glu His Ala Lys Asn Glu Thr Leu Lys Ser His Leu Lys Ala Val Phe
                245                 250                 255
Gly Ala Thr Ser Ser Asp Val Asp Asp Glu Phe Phe Ala Ala Ala Leu
            260                 265                 270
Ser Ser Thr Leu Gly Ala Phe Gln Gly Arg Asn Trp Asp Pro Ala Val
        275                 280                 285
Gly Asp Gly Thr Phe Gln Arg Tyr Cys Lys Asn Leu Thr Ser Pro Ser
    290                 295                 300
Leu Leu Tyr Gln Gln Asn Asn Thr Met Lys Ala Trp Thr Glu Glu Val
305                 310                 315                 320
Ile Ser Ala Thr Lys Tyr Asp Ala Thr Asn Ser Ser Leu Val Thr Gly
                325                 330                 335
Met Leu Asn Tyr Ala Gly Tyr Met Asn Ala Thr Met Phe Ser His Leu
            340                 345                 350
Asp Glu Val Arg Gly Thr Ser Ser His Lys Ser Pro Gln Ser Leu Gln
        355                 360                 365
Lys Ser Ser Gly Val Ser Trp Gly Tyr Gln Val Cys Thr Glu Trp Gly
    370                 375                 380
Tyr Phe Met Pro Gly Ser Ser Val Pro Lys Asp Arg Leu Pro Leu Ile
385                 390                 395                 400
Ser Arg Leu Ile Thr Leu Ala Gly Glu Ser Arg Phe Cys Lys Glu Asp
                405                 410                 415
Phe Asn Ile Thr Thr Pro Pro Asp Thr Asp Arg Ile Asn Lys His Gly
            420                 425                 430
Gly Phe Asn Phe Ser Tyr Pro Arg Ala Ala Ile Ile Asp Gly Leu Ala
        435                 440                 445
Asp Pro Trp Arg Asp Ala Thr Pro His Ala Asp Gly Thr Arg Pro Arg
    450                 455                 460
Gln Ser Thr Asp Glu Glu Pro Phe Ile Leu Val Asp Val Pro Ala Glu
465                 470                 475                 480
Asp Val Trp Asp Gly Ile Arg Gly Ala Val His His Trp Asp Gln Asn
                485                 490                 495
Gly Leu Ser Glu Gln Asp Val Gln Gln Gly Lys Thr Ala Pro Lys Ala
            500                 505                 510
Ile Val Ala Leu Gln Gln Glu Ile Ile Arg Phe Val Gly Val Trp Leu
        515                 520                 525
Lys Gln Trp Arg Lys His Glu Asp Val Ser Asp Pro Thr Ala Asn Thr
    530                 535                 540
Ala Val Arg Asn Arg Gln Leu Val Leu
545                 550
```

<210> 32567
<211> 68
<212> PRT
<213> A.fumigatus

<400> 32567

```
Ala Thr Ile Arg Ala Pro Ile His Thr Val Arg Phe Ser Pro Asn Gly
1               5                   10                  15
Lys Tyr Leu Ala Ser Gly Ala Asp Asp Lys Ile Val Cys Ile Tyr Thr
```

```
            20                  25                  30
Leu Asp Ala Asn Pro Pro Ser His Ala Ser Thr Phe Gly Arg Cys Trp
        35                  40                  45
Leu Tyr Leu Thr Val Gly Arg Glu Leu Gly Asn Arg Cys Phe Leu Arg
    50                  55                  60
Lys Cys Leu Gly
65
```

<210> 32568
<211> 171
<212> PRT
<213> A.fumigatus

```
<400> 32568
Ser Leu Thr Met Glu Val Ala Ser Arg Gln Ser Ser Arg Leu Leu Arg
1               5                   10                  15
Ser Ser Ile Arg Gly Ser Asn Arg Val Ala Leu Gln Asn Pro Cys Leu
            20                  25                  30
Ser Ser Pro Arg Ile Ile Ser Ser Asn Thr Leu Ser Ala Ile Gln Arg
        35                  40                  45
Arg Asn Val Ser Ser Thr Ser Arg Arg Thr Ala Pro Glu Ser Ser Leu
    50                  55                  60
Leu Gly Phe Gly Pro Gly Ser Val Pro Gly Gly Ala Pro Ala Thr Tyr
65                  70                  75                  80
Phe Ser Ser Arg Ser Ala Leu Pro Met Asn Thr Val Ile Arg Phe Val
                85                  90                  95
Pro Gln Gln Thr Ala Trp Ile Val Glu Arg Met Gly Lys Phe His Arg
            100                 105                 110
Ile Leu Glu Pro Gly Leu Ala Ile Leu Ile Pro Phe Ile Asp Arg Ile
        115                 120                 125
Ala Tyr Val Lys Ser Leu Lys Glu Ser Ala Ile Glu Ile Pro Ser Gln
    130                 135                 140
Asn Ala Ile Thr Ala Asp Asn Val Thr Leu Glu Leu Asp Gly Val Leu
145                 150                 155                 160
Tyr Thr Arg Val Phe Asp Ala Tyr Lys Ala Arg
                165                 170
```

<210> 32569
<211> 283
<212> PRT
<213> A.fumigatus

```
<400> 32569
Asp Lys Gln Ala Asp Ser Phe Gln Leu Ser Ile Ser Tyr Gly Val Glu
1               5                   10                  15
Asp Ala Ala Tyr Ala Ile Ser Gln Leu Ala Gln Thr Thr Met Arg Ser
            20                  25                  30
Glu Ile Gly Gln Leu Arg Leu Asp His Val Trp Lys Glu Arg Ala Thr
        35                  40                  45
Leu Asn Thr Asn Ile Thr Gln Ala Ile Asn Glu Ala Ala Gln Asp Trp
    50                  55                  60
Gly Val Val Cys Leu Arg Tyr Glu Ile Arg Asp Ile His Ala Pro Glu
65                  70                  75                  80
Gly Val Val Ala Ala Met His Arg Gln Val Thr Ala Glu Arg Ser Lys
                85                  90                  95
Arg Ala Glu Ile Leu Glu Ser Glu Gly Gln Arg Gln Ser Ala Ile Asn
```

```
            100                 105                 110
Ile Ala Glu Gly Arg Lys Gln Ser Val Ile Leu Ala Ser Glu Ala Leu
        115                 120                 125
Arg Ser Glu Arg Ile Asn Arg Ala Ser Gly Glu Ala Glu Ala Ile Met
    130                 135                 140
Leu Lys Ala Gln Ala Thr Ala Arg Gly Ile Glu Val Val Ala Lys Ala
145                 150                 155                 160
Ile Ala Glu Gly Ser Glu Asn Ala His Ser Ala Val Ser Leu Ser Val
                165                 170                 175
Ala Glu Lys Tyr Val Glu Ala Phe Ser Asn Leu Ala Arg Glu Gly Thr
            180                 185                 190
Ala Val Val Val Pro Gly Asn Val Gly Asp Leu Gly Gly Met Ile Ala
        195                 200                 205
Asn Ala Met Ala Val Tyr Gly Lys Val Asn Glu Ser Gln Ala Arg Ser
    210                 215                 220
Ile Ala Ala Lys Ala Leu Gly Val Gln Glu Pro Thr Gln Ile Glu His
225                 230                 235                 240
Ser Gln Gln Gln Lys Ala Glu Lys Asn Thr Ser Glu Pro Glu Gly Gln
                245                 250                 255
Ala Ala Ser Glu Thr Asp Lys Ala Gly Ser Val Ala Asp Ser Val Leu
            260                 265                 270
Glu Gly Phe Asp Gln Ala Ser Gln Gln Arg Arg
        275                 280
```

<210> 32570
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32570

```
Ala Ile Leu Leu Trp Val Gln Met Asp Thr Phe Glu Tyr Gly Gln Arg
1               5                   10                  15
Lys Arg Ser Ile Thr Arg Gly Asn Pro Glu Tyr Ala Asn Lys Pro Lys
            20                  25                  30
Gln Leu Ala Ser Met Ser Asn His Ser Gly Thr Asp Ser Tyr Gly Ser
        35                  40                  45
Ile Leu Ala Gln Trp Gln Ile Pro Gly Val Gly Cys Gly Arg
    50                  55                  60
```

<210> 32571
<211> 209
<212> PRT
<213> A.fumigatus

<400> 32571

```
Arg His Asn Thr Gly Ala Phe Leu Phe Leu Leu Ile Leu Ala Ala Tyr
1               5                   10                  15
Ile Gly Leu Leu Pro His Ser Thr Ser Ser Ser Ile Pro Ser Asn Leu
            20                  25                  30
Gln Pro Asn Asp Lys Phe Leu His Val Val Thr Phe Phe Phe Leu Ser
        35                  40                  45
Leu Val Phe Tyr Trp Ile Pro Asp Thr Thr Arg Arg Arg Ser Leu Gln
    50                  55                  60
Leu Thr Leu Leu Ile Cys Thr Leu Ala Leu Gly Ile Gly Ser Glu Ile
65                  70                  75                  80
Val Gln Ala Ile Leu Pro Asn Asp Arg Pro Phe Asp Pro Phe Asp Ile
```

```
                85                  90                  95
Leu Ala Asn Leu Val Gly Ser Leu Gly Ala Val Gly Leu Cys Ser Trp
            100                 105                 110
Tyr His Arg Arg Met Leu Glu Arg Arg Arg Lys Ala Arg Phe Gly Ala
        115                 120                 125
Leu Ser Asp Glu Arg Gly Asp Asp Ile Glu Leu Gly Gly Ala Gly Gly
    130                 135                 140
Ser Glu Ser Gly Leu Gly Pro Gln Glu Ser Gly Val Met Ser Leu Glu
145                 150                 155                 160
Gln Glu Val Asp Asn Trp Asp Glu Asn Ala Val Asp Thr Trp Asp Thr
                165                 170                 175
Glu Glu Gly Ala Asp Glu Tyr Ser Ala Ser Ala Ala Pro Gly Arg Gly
            180                 185                 190
Pro Glu Ser Lys Val Ser Pro Val Asn Ser Glu Gly Ala Lys Arg Ile
        195                 200                 205
Asp
```

<210> 32572
<211> 392
<212> PRT
<213> A.fumigatus

<400> 32572

```
Thr Trp Arg Asn Glu Pro Pro Arg Pro Pro Gln Asn Arg Gly Phe Gly
1               5                   10                  15
Ala Ser Met Ser Leu Gly His His His Thr Trp Gln Pro Pro Gly His
            20                  25                  30
Leu Arg His Ala Asp Asp Pro Asn Asp Leu Arg Ser Val Asn Gly Tyr
        35                  40                  45
Ser Lys Ser Phe Pro Gly Leu Lys Thr Leu Gln Met Arg Ser Ser Ala
    50                  55                  60
Gly Ala Asp Gly Gly His Ala Gly Thr Leu Ile Ser Glu Ser Asp Thr
65                  70                  75                  80
Ala Ala Asp Glu Asp Pro Arg Ile Ala Thr Phe Arg Asp Leu Tyr Lys
                85                  90                  95
Arg Ser Glu Ala Lys Ile Asn Ala Leu Phe Ala Lys Lys His Pro Ala
            100                 105                 110
Glu Glu Asn Leu Gly Ala Ala Asp Ala Glu Thr Glu Glu Pro Glu Ser
        115                 120                 125
Gln Ile Asn Arg Ala Cys Glu Pro Val Ser Leu Pro Val Ala Pro Lys
    130                 135                 140
Lys Pro Ala Arg Lys Leu Asp Asp Asp Asp Tyr Asp Glu Tyr Asp Asp
145                 150                 155                 160
Asp Glu Glu Glu Glu Thr Glu Ala Pro Thr Pro Pro Lys Ser Lys Thr
                165                 170                 175
Ser Ala Leu Ser His Glu Pro Ser Gly Val Gln Ser Pro Lys His Arg
            180                 185                 190
Pro Ser Ile Ala Ala Ser Val Ala Ala Asp Ser Met Lys Glu Val Lys
        195                 200                 205
Lys Glu Thr Leu Glu Asp Ile Arg Lys Lys Leu Glu Glu Asp Lys Lys
    210                 215                 220
Ala Thr Glu Glu Ala Ala Arg Arg Ser Phe His Thr Met Phe His Thr
225                 230                 235                 240
Leu Glu Asn Asp Arg Asp Ala Met Leu Asp Gln Gln Arg Leu Glu Glu
                245                 250                 255
```

```
Ser Glu Arg Gln Val Glu Ala Glu Met Ser Ser Gln Ala Asn Ala Gly
            260                 265                 270
Ser Thr Asn Ala Asn Ala Ser Thr Asp Gly Tyr Gly Ser Leu Ser Asn
        275                 280                 285
Ala Asn Leu Gly Ala Ser Ser Leu Thr Leu Lys Asn Leu Ile Ala Arg
    290                 295                 300
Ile Asp Met Lys Arg Asn Met Val Gln Ala Ser Asp Ala Glu Leu Arg
305                 310                 315                 320
Ser Leu Met Ser Glu Val Arg Lys Asn Arg Ser Lys Trp Ala Ser Glu
                325                 330                 335
Asp Lys Ile Gly Gln Glu Glu Leu Tyr Glu Ala Ala Glu Lys Val Leu
            340                 345                 350
Ser Glu Leu Lys Ala Met Thr Glu His Ser Ser Ala Phe Leu Thr Arg
        355                 360                 365
Val Asn Lys Arg Asp Ala Pro Asp Tyr Tyr Thr Ser Lys Glu Pro Pro
    370                 375                 380
Ser Pro Leu His Ala Phe Leu Gln
385                 390
```

<210> 32573
<211> 243
<212> PRT
<213> A.fumigatus

<400> 32573

```
Leu Glu Lys Val Phe Lys Lys His Thr Met Ala Arg Thr Ile Gly Lys
1               5                   10                  15
Tyr Gln Leu Leu Ile Leu Asn Ser His Ala Ser His Glu Ser Ala Glu
            20                  25                  30
Phe Asp Leu Phe Tyr Lys Asn His Gln Ile Ile Pro Leu Tyr Ile Pro
        35                  40                  45
Ser His Ser Ser Asp Lys Leu Gln Pro Leu Asn Ile Ser Cys Phe Ala
    50                  55                  60
Pro Leu Lys Glu Ala Tyr Gly Ile Glu Val Ile Arg Ser Ile Gln Asn
65                  70                  75                  80
Ser Ile His His Ile Asn Lys Glu Asn Phe Leu Thr Leu Tyr Arg Glu
                85                  90                  95
Ala Gln Lys Ala Leu Ser Ser Lys Asn Ile His Ser Gly Phe Lys Ala
            100                 105                 110
Ser Gly Leu Val Pro Leu Asn Cys Gln Gln Val Leu Asp Lys Leu Thr
        115                 120                 125
Ile Lys His Ile Thr Pro Pro Ser Thr Ala His Arg Pro Ser Asp Gln
    130                 135                 140
Glu Trp Thr Ala Lys Thr Pro Tyr Thr Thr Ala Lys Val Gln Lys Gln
145                 150                 155                 160
Met His Leu Ile Lys Gln Leu Ile Asn His Asn Ser Glu Ser Pro Leu
                165                 170                 175
Asn Lys Ala Ile Arg Gln Leu Ala Lys Ser Ala Lys Tyr Thr Ile His
            180                 185                 190
Lys Val Leu Leu Leu Asp Gln Glu Ile Lys Gly Leu His Ala Ala Asn
        195                 200                 205
Lys Lys Gln Lys Arg Arg Arg Thr Thr Pro Arg Ser Phe Met Ala Thr
    210                 215                 220
Gly Gly Val Leu Thr Gly Thr Lys Gly Pro Ser Thr Lys Pro Lys Lys
225                 230                 235                 240
Leu Tyr Arg
```

<210> 32574
<211> 66
<212> PRT
<213> A.fumigatus

<400> 32574
Glu Asn Pro Leu Phe Met Ser Asp Glu Phe Ala Tyr Leu Leu His Phe
1 5 10 15
Gly Asp Gly Arg Lys Ile Ser Glu Ile Lys Gly Phe Phe Asp Thr Leu
20 25 30
Asn Val His Asn His Leu Gly Arg Glu Lys Ser Tyr Ser Gly Gly Ala
35 40 45
Tyr Trp Ile Asp Leu Leu Ala Trp Thr Leu Glu Val Ser Leu Ser Ile
50 55 60
Phe Ile
65

<210> 32575
<211> 88
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (83),(84),(85)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32575
Leu Phe Ile Leu Met Ile Val Leu Ile Gln Thr Pro Arg Val Arg Gln
1 5 10 15
Leu Asp Val Pro Ala Val Leu Ser Asp Glu Gly Leu Pro Ala Met Ser
20 25 30
Ser Pro Glu Lys His Gln Gly Pro Asn Leu Leu Ala Leu Glu Asp Asp
35 40 45
Ser Asp Glu Asp Ile Val Pro Tyr Ser Arg Asn His Ala Thr Lys Phe
50 55 60
Trp Lys Ser Pro Asn Gly Val Phe Ser Lys Pro Leu Glu Gly Ser Ile
65 70 75 80
Cys Ser Xaa Xaa Xaa Thr Asn Arg
85

<210> 32576
<211> 71
<212> PRT
<213> A.fumigatus

<400> 32576
Glu Ile Phe Val Phe Leu Leu Phe Tyr Glu Ala Gly Lys Cys Arg Cys
1 5 10 15
Asn Leu Tyr Asp Lys Ala Phe Asn Ile Ala Phe Gly His Lys Tyr Leu
20 25 30
Leu Lys Ile Ser Val Arg His Asn Asp Val Lys Gly His Gly Asp Gln
35 40 45
His Arg Leu Ser Gly Asn Ile Arg Ala Asn Gln Val Glu Gly Leu Cys

```
    50                  55                  60
Ser Trp Phe Cys Cys Val Ser
65                  70

<210> 32577
<211> 452
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (291)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32577
Asp Arg Arg Val Ser Arg Arg Arg Gly His Leu Leu Phe Leu Lys Leu
1               5                  10                  15
Phe Leu Phe Leu Leu Leu Leu Phe Phe Phe Leu Leu Phe Phe Phe Leu
            20                  25                  30
Leu Leu Phe Phe Leu Leu Leu Phe Phe Leu Leu Phe Ala Arg Arg Ser
        35                  40                  45
Phe Thr Ser Ile Ile Ile Thr Arg Arg Ile Leu His His Leu Ile Leu
    50                  55                  60
Ile Gly Leu Leu Leu Arg Arg Ala Ser Phe Leu Leu Leu Ala Pro Ser
65                  70                  75                  80
Leu Phe Gln Asn Ser Ser Leu Leu Leu Pro Gln Leu Pro Leu Arg Leu
                85                  90                  95
Asp Lys Arg Thr Gln Arg Cys Arg Leu Pro Ile His Ile Phe Gln Glu
            100                 105                 110
Arg Leu Asp Leu Gly Ala Ile Ala Arg Arg Ile Arg Asp Ile Gln Pro
        115                 120                 125
Leu Leu Leu Asp Pro Ala Arg Val Gly Leu Asp Leu Leu His Lys Gln
    130                 135                 140
Gln Asp Ser Leu Val Asp Leu Cys Ile Leu Val Ala Gly Arg Ala Gly
145                 150                 155                 160
Ala Asp Leu Leu Gln Pro Ala Leu Gln Gly Asp Asp Asp Gly Asp Gly
                165                 170                 175
Glu Leu Gly Glu Gly Asp Met Phe Gly Pro Glu Asp Glu Glu Leu Gly
            180                 185                 190
Glu Gln Leu Gly Asp Leu Phe Ala Asp Ala Ile Leu Val Asp Ala Arg
        195                 200                 205
Ala Glu Val Gly Phe Arg Gly Ala Asp Gly Gly Ala Glu Val Glu Leu
    210                 215                 220
Leu Glu Gly Ala Gly Phe Arg Gly Leu Ala His Leu Gly Cys Val Glu
225                 230                 235                 240
Asp Leu Glu Glu Gly Arg Gly Tyr Gly His Val Arg Ala Cys Gly Thr
                245                 250                 255
Gly Glu Ala Glu Glu Gly Ala Ser Glu Leu Glu Ala Glu Trp Glu Val
            260                 265                 270
Arg Cys Gly Gly Asp Glu Ala His Arg Ala Glu Gly Asp Leu Asp His
        275                 280                 285
Gly Val Xaa Glu Gly Pro Gln Gly Gly Leu Leu Ser Gly Phe Ser Phe
    290                 295                 300
Asp Glu Thr Val Ala Val Leu Gly Glu Asp Ala Arg Pro Glu Val Gln
305                 310                 315                 320
Arg Val Arg Val Leu Pro Val Val His Gly Leu Val Arg Phe Leu Gly
```

```
                325                 330                 335
Gly Val Gly Asp Ala Ala Ala Glu Val His Gly Lys Leu Pro Asp Glu
            340                 345                 350
Pro Glu Ala Cys Arg Val Arg Asp Val Leu Val Asp Ala Pro Glu Leu
        355                 360                 365
Gly Gly Arg Val Leu His Gln Val Asn Ser Arg Glu Arg Val Asp Gly
    370                 375                 380
Cys Val Pro Gly Ala Leu Asp His Ser Phe Ile Gln Gly Leu Glu Asp
385                 390                 395                 400
Gly Leu Leu Glu Ala Gly Val Ala Asn Asp His Glu Phe Ala Lys Gln
                405                 410                 415
Gln Glu Ala Cys Asp Pro Gly Cys Leu Arg Arg Arg Asp Ile Ser Pro
            420                 425                 430
Asp Ala Asp Asn Arg Leu Asp Glu Asn Phe Gln Glu Phe Ser Glu Leu
        435                 440                 445
Lys Gln Ile Gly
    450
```

<210> 32578
<211> 263
<212> PRT
<213> A.fumigatus

<400> 32578

```
Lys Ile Ser Leu Leu His Ser Pro Tyr Ala Tyr Met Cys Leu Ser Lys
1               5                   10                  15
Thr Val Ile Val Pro Leu Met Cys Thr Cys Thr Val Phe Leu Asn Phe
            20                  25                  30
Ala Thr Phe Ile Asp Ile Ile Ser Gly Ile Val Pro Ser Tyr Arg Thr
        35                  40                  45
Arg Trp Asn Lys Arg Asn Lys Gln Asn Phe Lys Thr Gly Gly Tyr Leu
    50                  55                  60
Glu Glu Glu Gly Ile Tyr Ser Ser Ser Asn Ser Ser Ser Ser Ser Ser
65                  70                  75                  80
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
                85                  90                  95
Ser Ser Ser Ser Ser Ser Ser Pro Asp Glu Ala Ser Leu Pro Ser Ser
            100                 105                 110
Ser Leu Gly Ala Ser Ser Ile Ile Ser Ser Ser Ser Ala Phe Phe Ser
        115                 120                 125
Ala Ala Arg Arg Phe Ser Ser Ser Arg Arg Pro Cys Ser Arg Ile Ala
    130                 135                 140
Ala Phe Ser Ser Leu Asn Phe Arg Cys Val Leu Thr Asn Ala Pro Lys
145                 150                 155                 160
Gly Val Asp Ser Gln Ser Thr Ser Phe Arg Asn Asp Ser Thr Ser Ala
                165                 170                 175
Arg Leu Arg Gly Val Tyr Val Thr Phe Ser Leu Phe Ser Ser Ile Gln
            180                 185                 190
Arg Ala Leu Ala Ser Thr Phe Cys Thr Ser Ser Lys Ile Ala Trp Leu
        195                 200                 205
Thr Phe Ala Phe Leu Leu Pro Val Val Arg Glu Pro Thr Cys Phe Ser
    210                 215                 220
Gln Arg Phe Arg Ala Thr Thr Met Gly Thr Glu Ser Ser Gly Lys Ala
225                 230                 235                 240
Ile Cys Leu Val Gln Arg Thr Lys Asn Ser Glu Ser Ser Ser Ala Thr
                245                 250                 255
```

Cys Ser Pro Thr Pro Ser Trp
260

<210> 32579
<211> 496
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (217)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32579
Arg Arg Arg Pro Pro Gly Lys Val Arg Val Ser Leu Asp Ser Lys Lys
1 5 10 15
Phe Lys Thr Leu Thr Pro Leu Ile Lys Ser His Thr Ser Ser Val His
20 25 30
Gln Leu Leu Val Asn Leu Ser Asp Ala Ser Thr Leu Lys Leu Thr Leu
35 40 45
Ser Ser Ile Glu Pro Met Leu Pro Tyr Leu Leu Gln Phe Arg Lys Leu
50 55 60
Leu Lys Val Leu Ile Lys Thr Ile Val Gly Ile Trp Ala Asp Val Ser
65 70 75 80
Thr Thr Glu Ala Thr Arg Ile Thr Gly Phe Leu Leu Leu Arg Lys Leu
85 90 95
Met Val Ile Gly Asp Ser Gly Leu Lys Glu Thr Val Leu Lys Ala Leu
100 105 110
Tyr Glu Gly Val Val Lys Gly Thr Arg Asn Thr Thr Val His Thr Leu
115 120 125
Ser Gly Val His Leu Met Lys Asn Ser Ala Ala Glu Leu Trp Gly Ile
130 135 140
Asp Gln Asp Ile Ser Tyr Thr Thr Gly Phe Arg Phe Ile Arg Gln Leu
145 150 155 160
Ala Met His Leu Arg Ser Ser Ile Thr Asn Ala Ser Lys Glu Ser Tyr
165 170 175
Lys Thr Met Tyr Asn Trp Gln Tyr Thr His Ser Leu Asp Phe Trp Ser
180 185 190
Arg Val Leu Ser Gln His Cys Asp Gly Leu Val Glu Ala Lys Ala Gly
195 200 205
Lys Gln Ser Ala Leu Arg Pro Leu Xaa Tyr Pro Val Val Gln Ile Thr
210 215 220
Leu Gly Ala Met Arg Leu Ile Pro Thr Ala Thr Tyr Phe Pro Leu Arg
225 230 235 240
Phe Gln Leu Thr Arg Ala Leu Leu Arg Leu Ser Arg Ala Thr Gly Thr
245 250 255
Tyr Val Pro Val Ala Pro Ala Leu Leu Glu Val Leu Asn Ala Ala Glu
260 265 270
Met Arg Lys Pro Pro Lys Ser Ser Thr Leu Lys Gln Leu Asp Phe Ser
275 280 285
Thr Ala Ile Arg Ala Pro Lys Ser Tyr Leu Arg Thr Arg Ile Tyr Gln
290 295 300
Asp Gly Val Gly Glu Gln Val Ala Glu Leu Leu Ser Glu Phe Phe Val
305 310 315 320
Leu Trp Thr Lys His Ile Ala Phe Pro Glu Leu Ser Val Pro Ile Val
325 330 335

```
Val Ala Leu Lys Arg Trp Leu Lys Gln Val Gly Ser Arg Thr Thr Gly
            340                 345                 350
Asn Lys Asn Ala Lys Val Asn Gln Ala Ile Leu Leu Leu Val Gln Lys
        355                 360                 365
Val Glu Ala Asn Ala Arg Trp Ile Glu Glu Lys Arg Leu Asn Val Thr
    370                 375                 380
Tyr Thr Pro Arg Asn Arg Ala Glu Val Glu Ser Phe Leu Lys Asp Val
385                 390                 395                 400
Asp Trp Glu Ser Thr Pro Leu Gly Ala Phe Val Lys Thr Gln Arg Lys
                405                 410                 415
Leu Arg Glu Glu Lys Ala Ala Ile Leu Glu Gln Gly Arg Arg Glu Glu
            420                 425                 430
Glu Lys Arg Arg Ala Ala Glu Lys Lys Ala Asp Glu Asp Glu Met Met
        435                 440                 445
Glu Asp Ala Pro Ser Asp Asp Asp Gly Ser Glu Ala Ser Ser Gly Glu
    450                 455                 460
Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu
465                 470                 475                 480
Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Phe Glu Glu Glu
                485                 490                 495
```

<210> 32580
<211> 281
<212> PRT
<213> A.fumigatus

<400> 32580

```
Lys Gln Asn Ala Phe Ala Glu Met Asn Val Asp Asp Phe Phe Ala Gly
1               5                   10                  15
Gly Phe Glu Ile Ala Asp Ala Asp Thr Asp Lys Gly Lys Ser Arg Arg
            20                  25                  30
Lys Asp Val Thr Pro Lys Ile Gly Lys Arg Lys Arg Ser Glu Glu Gln
        35                  40                  45
Lys Glu Glu Asp Glu Glu Ala Ser Ser Val Ala Ser Ser Glu Glu Glu
    50                  55                  60
Glu Asp Gly Gly Val Ser Asp Asp Asp Ala Ala Ser Gln Ala Ser Ser
65                  70                  75                  80
Ala Pro Asp Asp Phe Glu Ala His Lys Asn Gln Leu Gln Ala Leu Lys
                85                  90                  95
Asp Lys Asp Pro Glu Phe Tyr Lys Tyr Leu Lys Glu Asn Asp Ser Glu
            100                 105                 110
Leu Leu Asp Phe Gly Glu His Gly Asp Leu Thr Glu Val Leu Glu Leu
        115                 120                 125
Ser Glu Asp Glu Ala Glu Glu Gly Pro Ala Lys Lys Lys Lys Lys Ala
    130                 135                 140
Ala Lys Asp Glu Gly Glu Glu Ala Ala Asp Asn Thr Leu Thr Ile Ala
145                 150                 155                 160
Met Val Lys Lys Trp Gln Lys Leu Met Glu Glu Gln Asn Ser Ile Arg
                165                 170                 175
Ala Met Arg Gln Ala Val Leu Ala Phe Arg Cys Ala Ala Tyr Ile Asn
            180                 185                 190
Glu Ala Glu Thr Gln Glu Gln Lys Tyr Ser Ile Ser Asp Pro Asp Val
        195                 200                 205
Tyr His Gln Val Leu Val Thr Ala Leu Gly Thr Val Pro Lys Val Leu
    210                 215                 220
Ala His His Leu Pro Val Lys Glu Thr Ala Ser Arg Lys Ser Gln Gly
```

225 230 235 240
Val Ser Gly Phe Glu Glu Ile Gln Asp Pro His Thr Pro His Gln Val
245 250 255
Ala Tyr Ile Leu Ser Ser Ser Val Ala Arg Gln Ser Leu Arg Cys Ile
260 265 270
Asp Thr Gln Val Asp Ser Phe Val His
275 280

<210> 32581
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32581
Ile Pro Gln Ser Ala Gln Cys Leu Ile Asp Pro Ser Thr Ala Ala Pro
1 5 10 15
Tyr Ser Ile Glu Ile Asp Phe Tyr Pro Leu Val Thr Val Gly Gly Ala
20 25 30
Glu Leu Ala Ile Met Gly Trp Gly Tyr Pro Lys Cys Val Ser Arg Trp
35 40 45
Ser Leu Lys Arg Ala Lys Glu Gly Ala Tyr Gly Tyr
50 55 60

<210> 32582
<211> 292
<212> PRT
<213> A.fumigatus

<400> 32582
Ala Val Ser Tyr Glu Glu Trp Arg Ser Cys Ala Cys Glu Leu Asp Glu
1 5 10 15
Leu Glu Asp Asn Asn Thr Trp Lys Gln Thr Phe Glu Cys Ser Glu Tyr
20 25 30
Ser Pro His Leu Val Gln Glu Arg Leu Lys Gln Leu Glu Glu Ala Arg
35 40 45
Ile Ser Cys Asp Val Ser Arg Met Leu Phe Leu Ile Arg Thr Ser Leu
50 55 60
Ser Arg Asp Leu Gly Asn Met Ser Asn Ala Ala Leu Tyr Arg His Ser
65 70 75 80
His Val Gly Thr Lys Asp Leu Ile Asp Arg Tyr Ile Thr Thr Ala Val
85 90 95
Asp Thr Ile Ser Met Leu Val Asp Leu Ala Gly Lys Lys Cys Asp Val
100 105 110
Leu Glu Ser Arg Tyr Met Leu Asp Gln Leu Leu Ala Ala Arg Gln Ala
115 120 125
Phe Gly Arg Ser Ala Leu Leu Phe Ser Gly Gly Ala Thr Phe Gly Met
130 135 140
Asn His Ile Gly Val Leu Lys Ala Leu Trp Glu Ala Lys Leu Leu Pro
145 150 155 160
Arg Ile Ile Ser Gly Ala Ser Ala Gly Ser Ile Val Cys Ala Val Phe
165 170 175
Cys Thr Arg Thr Asp Asp Glu Leu Pro Ala Leu Leu Glu Ser Tyr Ala
180 185 190
Tyr Gly Asp Phe Ala Val Phe Asp Glu Glu Gly Lys Glu Glu Asn Ile
195 200 205
Leu Gln Lys Thr Ala Arg Phe Leu Lys Tyr Gly Ser Phe Leu Asp Ile

```
    210                 215                 220
Ser Asn Leu Ala Arg Val Met Arg Asn Trp Leu Gly Asp Ile Thr Phe
225                 230                 235                 240
Gln Glu Ala Tyr Asn Arg Thr Arg Arg Ile Leu Asn Ile Cys Val Ser
                245                 250                 255
Ser Ala Gly Val Tyr Glu Leu Pro Arg Leu Leu Asn Tyr Ile Thr Pro
            260                 265                 270
Thr Gln Gly Gly Asp Leu Phe Cys Cys Leu Ser Phe Ile Ile Val Met
        275                 280                 285
Leu Asn Leu Pro
    290
```

<210> 32583
<211> 425
<212> PRT
<213> A.fumigatus

<400> 32583

```
Ile Ala Trp Pro Phe Cys Asp Leu Thr Cys Asn Ser Val Phe Ser Cys
1               5                   10                  15
Ser Val Pro Leu Phe Phe Thr Pro Phe Val Leu Met Ala Lys Asn Pro
            20                  25                  30
Leu Thr Gly Glu Ala Val Pro Trp Thr Asp Phe His Lys Gln Tyr Ile
        35                  40                  45
Ala Ala Ser Val Asp Gly Asp Leu Pro Met Thr Arg Leu Ser Glu Met
    50                  55                  60
Phe Asn Val Asn His Phe Ile Val Ser Gln Val Asn Pro His Val Val
65                  70                  75                  80
Pro Ile Phe Pro Lys Asp Asp Gly Pro Ser His Gly Pro Met Gln Thr
                85                  90                  95
Ser Ser Ser Pro Thr Trp Leu His Thr Val Thr His Leu Ala Lys Asp
            100                 105                 110
Glu Ile Leu His Arg Met Ala Val Leu Ser Asp Leu Gly Ile Phe Pro
        115                 120                 125
Thr Ser Leu Thr Lys Ala Ala Ser Ile Met Asn Gln Lys Tyr Tyr Gly
    130                 135                 140
Asp Ile Asn Ile Tyr Pro Glu Ile Leu Tyr Ala Asn Phe Pro Arg Ile
145                 150                 155                 160
Leu Lys Asn Pro Thr Thr Glu Phe Met Leu Gln Ala Cys Leu Ser Gly
                165                 170                 175
Glu Arg Ala Thr Trp Pro Lys Leu Gly Arg Ile Arg Asn His Cys Ala
            180                 185                 190
Ile Glu Leu Ala Leu Asp Ser Ala Ile Gln Gln Met Arg Val Arg Val
        195                 200                 205
Ala Phe Ser Pro Ser Leu Val Asp Leu Arg Tyr Gln Gly Phe Asn Gly
    210                 215                 220
His Ser Ile Asp Ser Leu Asp Ser Ser Gly Gly Arg Gly Arg Met Leu
225                 230                 235                 240
Asn Arg Arg Ser Ser Tyr Asp His Gly Val Glu Arg Met Glu Arg Met
                245                 250                 255
Arg Pro Asn Ser Gly Arg Arg Ser Thr Ala Gln Val Arg Arg Ser Arg
            260                 265                 270
Ser Glu Tyr Leu Ala Glu Gln Ser His Ser Leu Ser Val Val Arg Ser
        275                 280                 285
Ala Glu Ala Gly Gln Glu Ile Gln Asp Arg Ser Asp Asp Arg Pro Lys
    290                 295                 300
```

```
Asp Leu Thr Val Asp Gly Thr Tyr Cys Ile Asp Phe Asp Tyr Asp Glu
305                 310                 315                 320
Thr Asp Leu Ser Ser Pro Glu Arg Pro Val Leu Leu Arg Ala Ser Ser
                325                 330                 335
Trp Gly Ser Ser Ala Gly Ala Gln Pro Gly Ser Arg His Ser Gln Gln
            340                 345                 350
Ser Thr Val Arg Thr Arg Pro Leu Leu Thr Thr Ala Ala Ser Val Met
        355                 360                 365
Gly Pro Ser Val Ser Thr Ser Arg Trp Pro Ser Ser Ala His Ser Ala
    370                 375                 380
Asp Asn Ala Ser Pro Arg Met Ser Leu Tyr Ser Lys Thr Ile Ser Pro
385                 390                 395                 400
Pro His Asn Leu Leu Gln Met Thr Pro Ala Val His Gly Ile Ser Ala
                405                 410                 415
Gly Thr Ser Thr Arg His Ser Tyr Asn
            420                 425
```

<210> 32584
<211> 391
<212> PRT
<213> A.fumigatus

```
<400> 32584
Leu Lys Gln Ser Ala Thr Phe Lys Gln Thr Ser Gly Gly Gly Gly Gly
1               5                   10                  15
Glu Tyr Asp Tyr Thr Arg Ser Gly Asn Pro Thr Arg Thr His Leu Glu
            20                  25                  30
Arg His Leu Ala Lys Ile Met Ser Ala Gln Arg Ala Leu Val Val Ser
        35                  40                  45
Ser Gly Met Ala Ala Leu Asp Val Ile Ser Arg Leu Leu Arg Pro Gly
    50                  55                  60
Asp Glu Val Val Thr Gly Asp Asp Leu Tyr Gly Gly Thr His Arg Leu
65                  70                  75                  80
Leu Lys Tyr Leu Ser Thr Asn Gly Gly Ile Ile Val His His Val Asp
                85                  90                  95
Thr Thr Gln Pro Glu Lys Val Arg Glu Val Leu Thr Pro Lys Thr Ala
            100                 105                 110
Met Val Leu Leu Glu Thr Pro Thr Asn Pro Leu Ile Lys Ile Val Asp
        115                 120                 125
Ile Pro Gln Ile Ala Thr Ala Ala His Glu Val Asn Pro Ser Cys Leu
    130                 135                 140
Val Ala Val Asp Asn Thr Met Met Ser Pro Leu Leu Leu Asn Pro Leu
145                 150                 155                 160
Glu Leu Gly Ala Asp Ile Val Tyr Glu Ser Gly Thr Lys Tyr Leu Ser
                165                 170                 175
Gly His His Asp Leu Met Ala Gly Val Ile Ala Val Asn Asp Leu Ala
            180                 185                 190
Leu Gly Glu Arg Leu Tyr Phe Pro Ile Asn Ala Ser Gly Cys Gly Leu
        195                 200                 205
Ser Pro Phe Asp Ser Trp Leu Leu Met Arg Gly Val Lys Thr Leu Lys
    210                 215                 220
Val Arg Met Asp Gln Gln Gln Ser Asn Ala Gln Arg Ile Ala Glu Phe
225                 230                 235                 240
Leu Glu Ala His Gly Phe Lys Val Arg Tyr Pro Gly Leu Arg Ser His
                245                 250                 255
Pro Gln Tyr Glu Leu His His Ser Met Ala Arg Gly Ala Gly Ala Val
```

```
            260                 265                 270
Leu Ser Phe Glu Thr Gly Asp Val Ala Val Ser Glu Arg Ile Val Glu
        275                 280                 285
Ser Ala Lys Leu Trp Ala Ile Ser Val Ser Phe Gly Cys Val Asn Ser
    290                 295                 300
Leu Ile Ser Met Pro Cys Arg Met Ser His Ala Ser Ile Asp Ala Lys
305                 310                 315                 320
Thr Arg Gln Glu Arg Ala Met Pro Glu Asp Leu Ile Arg Leu Cys Val
                325                 330                 335
Gly Ile Glu Asp Val Asp Asp Leu Ile Asp Asp Leu Arg Arg Ala Val
            340                 345                 350
Ser Leu Phe His Ser Pro Ala Phe Phe Cys Ile Leu Ser Met Leu Ile
        355                 360                 365
Thr Cys Ser Ile Ala Arg Ser Ser Arg Cys Ser Gln His Tyr Ser Arg
    370                 375                 380
Arg Ile Arg Gly Glu Arg Leu
385                 390
```

<210> 32585
<211> 145
<212> PRT
<213> A.fumigatus

<400> 32585

```
Leu His Arg Ala Asp Pro Ser Ser Pro Val Val Lys Thr Pro Asp Gly
1               5                   10                  15
Thr Thr Ile Phe Pro Glu Leu Ala Ser Pro Gln Asn His Thr Val Asp
            20                  25                  30
Pro Gln Leu Gln Met Gln Ser Gln Leu Gln Ser Gln Gly Met Gln Gln
        35                  40                  45
Arg His Met Met Val Asn Gln Thr Pro Gln Met Pro Gly Arg His Leu
    50                  55                  60
Ser Ser Pro Glu Leu Met Ser Gly Leu Pro Pro Gly Met Gly Leu His
65                  70                  75                  80
Gly Gly Gln Pro Gln Gln Val Phe Gly Leu Glu Asn Gln His Gly Trp
                85                  90                  95
Pro Met Gln Gly Leu Glu Ala Ala Leu Asn Ala Thr Gly Met Glu Asn
            100                 105                 110
Thr Ser Gln Asp Asp Asn Trp Ser Ser Ser Ser Arg Ser Gly Pro Thr
        115                 120                 125
Ala Pro Thr Thr Leu Asn Val Glu Asp Trp Tyr Val Cys Ile Arg Asp
    130                 135                 140
Ala
145
```

<210> 32586
<211> 249
<212> PRT
<213> A.fumigatus

<400> 32586

```
Lys Asn Ala Glu Glu Cys Arg Arg Val Lys Glu Thr Tyr Arg Pro Pro
1               5                   10                  15
Gln Ile Val Asn Glu Ile Ile Tyr Ile Leu Asn Thr Asn Thr Gln Pro
            20                  25                  30
Asp Gln Ile Phe Arg His Arg Ser Leu Leu Ser Arg Phe Arg Val Asn
```

```
        35                  40                  45
Thr Gly Met Ala His Pro Thr Gly His Ala Asp Gln Thr Val Asp Thr
    50                  55                  60
Ala Glu Ala Asp Thr Asp Gly Pro Gln Leu Gly Ala Phe Asp Asp Ala
65                  70                  75                  80
Leu Ala Asp Gly Asp Ile Ala Ser Leu Lys Arg Gln His Arg Ser Ser
                85                  90                  95
Ala Pro Arg His Gly Val Val Gln Leu Val Leu Arg Val Arg Pro Gln
            100                 105                 110
Pro Arg Ile Ala Asn Leu Glu Pro Met Gly Phe Glu Lys Leu Gly Asn
        115                 120                 125
Ala Leu Arg Val Gly Leu Leu Leu Val His Pro His Leu Glu Arg Leu
    130                 135                 140
Asp Thr Ala His Gln Glu Pro Gly Val Lys Arg Arg Gln Ala Ala Ser
145                 150                 155                 160
Arg Ser Val Asp Gly Glu Val Gln Pro Leu Pro Lys Ser Lys Val Val
                165                 170                 175
His Ser Asn His Thr Gly His Glu Ile Val Met Ala Arg Gln Val Leu
            180                 185                 190
Gly Ser Thr Phe Ile Asn Asn Ile Arg Thr Glu Leu Lys Arg Val Gln
        195                 200                 205
Lys Glu Arg Arg His His Ser Val Val His Arg His Gln Ala Ala Arg
    210                 215                 220
Val Asp Leu Val Arg Ser Cys Gly Asn Leu Gly Asp Ile Asp Asn Leu
225                 230                 235                 240
Asp Glu Arg Val Gly Arg Arg Leu Glu
                245
```

<210> 32587
<211> 64
<212> PRT
<213> A.fumigatus

<400> 32587

```
Cys Leu Gln Gly Ile Glu Ser Tyr Lys Thr Arg Gln Glu Pro Ser Leu
1               5                   10                  15
Leu Ile Gly Leu His Arg Val Asp Cys Tyr Val Asp Ala Leu Glu Ala
            20                  25                  30
Cys Arg Gly Arg His Ser Ser Asp Gly Leu Ala Ala Lys Ala Lys Phe
        35                  40                  45
Leu Phe Ala Asn Gln Asn Ser Asp Ile His Leu Ala Thr Thr Lys Asn
    50                  55                  60
```

<210> 32588
<211> 83
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (48),(56),(67),(72),(76)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32588

```
Asp Arg Gln Ser Arg Tyr Arg Val Ser Gly Gly Asn Asp Pro Gln Val
1               5                   10                  15
```

```
Pro Arg Leu Val Ala Ser Met Glu Thr Trp Gln Thr Pro Gly His Pro
            20                  25                  30
Gln Asn Lys Tyr Ile Phe Arg Ser Thr Phe Glu Gly Lys Val Asn Xaa
        35                  40                  45
Gly Trp Asn Tyr Ser Arg Ile Xaa Leu Ile Arg Gly Leu Trp Glu Pro
    50                  55                  60
His Ser Xaa Ala Leu Gly Val Xaa Ala Arg Glu Xaa Ala Ala Thr Arg
65                  70                  75                  80
Pro Ala Val
```

<210> 32589
<211> 690
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (655),(664),(675),(680),(683)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32589

```
Lys Val Leu Arg Ser Val Leu Val Asp Val Asp Phe Ala Glu Ala Ile
1               5                  10                  15
Arg Ser Leu Lys Ser Lys Ser Pro Asp Asp Gln Gln Thr Leu Leu Ile
            20                  25                  30
Ala Ser Trp Ala Gly Ser Arg Arg Leu Glu Ala Lys Tyr Gly Gln Tyr
        35                  40                  45
Val Gln Gly Asp Ala Ala Thr Thr Ala Thr Leu Arg Ala Pro Gly Val
    50                  55                  60
Ala Val Lys Val Gln Phe Glu Asp Asn Gly Lys Asp Val Ser Ala Leu
65                  70                  75                  80
Asn Ala Glu Leu Lys Ile Asp Ala Ser Thr Asn Val Leu Tyr Pro Ser
                85                  90                  95
Leu Val Pro Val Ile Lys Gln Met Thr Ala Ala Ile Lys Glu Val Met
            100                 105                 110
Glu Gly His Asp Lys Pro Arg Lys Pro Ser Ser Ala Ala Met Leu Gln
        115                 120                 125
Pro Gln Lys Leu Met Gln Glu Ala Pro Phe Asp Thr Lys Asp Ala Ala
    130                 135                 140
Ser Ile Phe Gly Arg Cys Lys Val Asn Val Gly Ile Leu Ile Arg Lys
145                 150                 155                 160
Gln Glu Phe Ser Leu Ser Cys Gln Pro Ile Ala Arg Val Ala Ala Thr
                165                 170                 175
Ala Gly Phe Glu Ser Val Tyr Ile Thr Val Asn Thr Val Gln Ser Asp
            180                 185                 190
Glu Gln Gly Arg Phe Leu Ala Gly Leu Val Ala Phe Asn Ser Leu Gln
        195                 200                 205
Ala Ser Val Lys His Val Tyr Ser Asn Glu Ser Thr Ala Ser Phe Asp
    210                 215                 220
Val Lys Ser Ile Val Met Ser Leu Met Asn Ser Lys His Leu Ser Ser
225                 230                 235                 240
Ser Lys Gly Ile Ser Ala Val Leu Arg Val Ser Pro Val Gln Val Met
                245                 250                 255
Leu Asn Ala Lys Gln Val Gln Asp Leu Leu Leu Phe Arg Glu Ile Trp
            260                 265                 270
```

```
Val Pro Ser Asn Glu Glu Ser Asn Gly Gly Arg Ala Phe Gln Pro Glu
        275                 280                 285
Ser Asn Glu Pro Gln Ala Tyr Ile Val Gln Arg Tyr Gln Gln Val Ala
    290                 295                 300
Ala Ala Pro Ala Phe Pro Trp Asn Ser Ala Val Ala Ile Glu Lys Leu
305                 310                 315                 320
Glu Ile Gln Leu Asp Leu Gly Ser Thr Leu Gly Lys Ala Gln Phe Ala
                325                 330                 335
Val Asn Asp Leu Trp Leu Ser Ser Arg Lys Thr Ser Asp Arg Glu Gln
            340                 345                 350
Ser Leu Ser Ile Gly Phe Lys Ser Ser Glu Val Glu Ser Lys Gly Arg
        355                 360                 365
Met Ser Gly Ser Val Glu Leu Gln Ile Leu Lys Ile Arg Thr Ser Ile
    370                 375                 380
Gln Trp Pro Glu Glu Lys Pro Asn Ala His Ser Val Pro Leu Ile Gln
385                 390                 395                 400
Ala Ser Ile Ser Phe Gln Gln Leu Gln Ala Lys Val Ser Phe Asp Tyr
                405                 410                 415
Gln Pro Phe Leu Val Ala Asn Ile Ser Met Phe Asp Phe Leu Met Tyr
            420                 425                 430
Asn Val Arg Gly Thr Ile Gly Ala Pro Lys Gln Arg Leu Phe Ser Ile
        435                 440                 445
Leu Glu Gly Asp Lys Val Gln Val Phe Cys Thr Ser Leu Thr Ala Ser
    450                 455                 460
Gln Cys Leu Ala Leu Ile Gln Gly Trp Gln Arg Leu Ala Gln Asp Lys
465                 470                 475                 480
Gln Ala Ala Tyr Glu Ala Ser Leu Arg Glu Val Glu Arg Tyr Leu Arg
                485                 490                 495
Arg Arg Ala Ser Val Ala Thr Glu Lys Met Glu Pro Gln Ala Lys Glu
            500                 505                 510
Leu Ala Lys Lys Ala Lys Asp Thr Asn Asp Glu Lys Ala Pro Ile Ser
        515                 520                 525
Leu Asn Thr Gly Val Val Val Ser Ile Thr Glu Val Asn Leu Gly Val
    530                 535                 540
Phe Pro Ser Ser Phe Phe Asp Asn Gln Ile Phe Lys Leu Glu Ala His
545                 550                 555                 560
Asp Ala Gln Ala Arg Phe Tyr Val Ser Leu Lys Glu Gly Lys Ile His
                565                 570                 575
Ser Ala Leu Gly Leu Thr Leu Gly Gln Leu Arg Val Ala Leu Ser Ala
            580                 585                 590
Val Asn Arg Pro Thr Cys Thr Asp Ile Glu Asp Phe Leu Val Ser Glu
        595                 600                 605
Ile Val Ser Arg Ala Thr Gly Ser Arg Gly Gly Thr Ile Leu Lys Cys
    610                 615                 620
Leu Gly Ser Trp Leu Val Trp Arg Leu Gly Lys Pro Arg Ala Ile Arg
625                 630                 635                 640
Arg Ile Ser Ile Ser Phe Ala Val Leu Ser Lys Ala Lys Ser Xaa Ser
                645                 650                 655
Asp Gly Thr Ile Pro Ala Ser Xaa Ser Ser Gly Asp Cys Gly Asn Pro
            660                 665                 670
Ile Pro Xaa Arg Trp Ala Ser Xaa Leu Gly Xaa Pro Leu Gln Pro Val
        675                 680                 685
Arg Arg
    690
```

<210> 32590

<211> 91
<212> PRT
<213> A.fumigatus

<400> 32590
Cys Phe Glu Ser Ser Leu Phe Arg Gln Ser Ser Glu Phe Leu Val Leu
1 5 10 15
Asp Trp Lys Ala Ile Lys Leu Phe Ala Asp Thr Ser Asp Glu Gly Gly
20 25 30
Leu Phe Cys Cys Ser Val Ser Arg Val Phe Ile Ala Pro Asn His Ile
35 40 45
Asn Ile Leu Gly Thr Val Arg Arg Thr Tyr Gly Ser His Phe Phe Leu
50 55 60
Arg Ser Phe Phe Leu Ala Ser Arg Phe Met Ala Ser Tyr Asn Ala Asp
65 70 75 80
Arg Ala Ser Pro Lys Thr Thr Met Arg Phe Ser
85 90

<210> 32591
<211> 135
<212> PRT
<213> A.fumigatus

<400> 32591
Cys Gly Met Gln Gln Ala Thr Lys Pro Val Lys Ala Lys Ala Gln Glu
1 5 10 15
Asn Lys Thr Thr Arg Met Pro Gln Asn Glu Leu Leu Asp Leu Ile Tyr
20 25 30
Gln Cys Phe Arg Glu Tyr Lys Tyr Trp Pro Phe Lys Thr Leu Lys Ala
35 40 45
Arg Leu Arg Gln Pro Glu Ala Tyr Leu Lys Gln Thr Leu Glu Met Val
50 55 60
Ala His Leu Val Lys Ser Gly Asp Phe Ala Met Thr Trp Glu Leu Lys
65 70 75 80
Pro Glu Ala Met Glu Ser Asn Tyr Ala Asn Ala Leu Ser Tyr Gly Asn
85 90 95
Ala Lys Glu Glu Leu Pro Pro Gly Thr Asp Tyr Asn Phe Asp Asp Gly
100 105 110
Ser Glu Glu Glu Ala Asn Ala Ser Gly Met Val Thr Asp Asn Asp Glu
115 120 125
Met Lys Phe Glu Asp Val Val
130 135

<210> 32592
<211> 405
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (30)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32592
Cys Ser Ser Leu Ser Leu Arg Thr Asn Val Phe Asn His Thr Lys Val
1 5 10 15

```
Ile Met Ser Asp Pro Leu Gly Leu Ile Ser Ser Lys Cys Xaa His Arg
            20                  25                  30
Arg Val Ile Leu Asp Thr Ala Tyr Gly Pro Leu Thr Ile Leu Phe Gly
        35                  40                  45
Asp Ile Gly Gly Thr Thr Gly Pro Ala Leu Leu Phe Leu Pro Gly Met
    50                  55                  60
Phe Ala Ser Arg Tyr Leu Ser Ile Pro Met His Val Ile Ala Glu Arg
65                  70                  75                  80
Ala Gly Val Arg Leu Leu Val Val Asp Arg Pro Gly Met Gly Ala Ser
                85                  90                  95
Thr Asn Val Pro Leu Ala Gln Arg Ile Ala Ile Trp Val Asp Met Leu
            100                 105                 110
Pro Arg Leu Leu Ala His Leu Gly Ile Pro Arg Val Asn Leu Val Ser
        115                 120                 125
His Ser Ala Gly Thr Ile Tyr Leu Leu Asn Thr Trp Ala Gln Cys Arg
    130                 135                 140
Glu Leu Val Gly Pro Val Val Ala Phe Leu Gly Asn Phe His Pro Tyr
145                 150                 155                 160
Pro Ser Leu Phe Phe Cys Leu Phe Leu Gly Trp Lys Thr Arg Gln Arg
                165                 170                 175
Asn Lys Thr Gln Lys Arg Arg Arg Ile Thr Gln Tyr Ser Val Ile Ala
            180                 185                 190
Pro Trp Val Asp Leu Ala His Ser Arg Val Thr Val Met Gln Met Ala
        195                 200                 205
Gln Tyr Val Pro Thr Lys Ala Phe Ala Met Trp His Leu Ile Pro His
    210                 215                 220
Phe Val Val Thr Gln Ala Ser Pro Val Leu Ala Ser Ser Gly Ala Val
225                 230                 235                 240
Val Arg Arg Leu Ser Ser Gln Ser Ser Arg Gly Arg Arg Ile Ala Arg
                245                 250                 255
Ser Ser Met Pro Ile Gly Gly Glu Ser Asn Val Ile Thr Ala Cys Arg
            260                 265                 270
Thr Leu Asn Arg Arg Asn Ser Arg Val Ser Pro Ser Gly Leu Cys Met
        275                 280                 285
Lys Arg Thr Pro Leu Gly Arg Ile Ala Arg Pro Cys Ser Val Phe Gly
    290                 295                 300
Lys Ala Thr Val Ala Thr Gly Gly Ala Cys Ser Asp Tyr Ala His Cys
305                 310                 315                 320
Val Gln Ala Leu Ala Ala Gly Glu Arg Ser Thr Gly Gly Arg Val Ser
                325                 330                 335
Val Arg Thr Tyr Phe Ala Ala Lys Asp Ala Leu Val Gly Ser Gly Gly
            340                 345                 350
Gln Lys Tyr Phe Glu Glu Cys Trp Arg Ala Pro Gly Leu Glu Gly Ile
        355                 360                 365
Asp Tyr Ile Ser Thr Thr Ile Asp Gly Thr Asp His Asp Thr Leu Val
    370                 375                 380
Gln Ser Val Glu Val Trp Glu Glu Ile Phe Ser Ser Val Pro Gln Met
385                 390                 395                 400
Thr Leu Tyr Asp Arg
                405
```

<210> 32593
<211> 61
<212> PRT
<213> A.fumigatus

<400> 32593
Leu Arg Asp Val Ser Phe Pro Leu Cys Leu Ser Leu Pro Ala Asp Arg
1 5 10 15
Met Ser Ser Val Trp Asn Leu Val Glu Cys Ser His Leu Phe Phe Ala
20 25 30
Lys Lys Asp Phe Val Leu Asn Asp Glu Gln His Leu Ala Glu Met Val
35 40 45
Ser Leu Met Gly Pro Pro Gly Leu Pro Leu Arg Thr Ser
50 55 60

<210> 32594
<211> 86
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (55),(57)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32594
Leu Cys Met Phe Arg Leu Phe Thr Tyr Thr Gly Ile Cys Thr Cys Asn
1 5 10 15
Met Ala Val Gly Leu Ile Lys Leu Ser Thr Asn Asn Gly Arg Pro Arg
20 25 30
Phe Gly Ser Ser Pro Met Asp Thr Ser Phe Leu Arg Val Met Val Leu
35 40 45
Tyr Ser Glu Asn Phe Cys Xaa Ser Xaa Gly Arg Leu Pro Cys Ser Phe
50 55 60
His Ser Phe Asp Tyr Glu Asn Gln His Asp Glu Ile Glu Asn Gln His
65 70 75 80
Lys Lys Ile Glu Gln Lys
85

<210> 32595
<211> 69
<212> PRT
<213> A.fumigatus

<400> 32595
His Phe Ser Leu Gln Glu Arg Ile Ile Cys Leu Asn Gly Glu Val Asp
1 5 10 15
Glu Thr Met Ser Ala Ser Ile Val Ala Gln Leu Leu Phe Leu Glu Ala
20 25 30
Asp Asn Pro Gln Lys Pro Ile His Leu Tyr Ile Asn Ser Pro Gly Gly
35 40 45
Ser Val Thr Ala Gly Asn Ser Asn Ala Ser Asp Ile Ala Val Val Cys
50 55 60
Thr Lys Gly Leu Ile
65

<210> 32596
<211> 162
<212> PRT
<213> A.fumigatus

<400> 32596
Phe Gln Cys Ile Arg Tyr Arg Cys Arg Leu Tyr Lys Arg Thr Asn Leu
1 5 10 15
Thr His Leu Tyr Leu Gly Leu Ala Ile Tyr Asp Thr Met Thr Tyr Ile
20 25 30
Ala Ser Pro Val Ser Thr Ile Cys Val Gly Gln Ala Ala Ser Met Gly
35 40 45
Ser Leu Leu Leu Cys Gly Gly Asp Pro Gly Lys Arg Tyr Cys Leu Pro
50 55 60
His Ser Ser Ile Met Ile His Gln Pro Ser Gly Gly Tyr Phe Gly Gln
65 70 75 80
Ala Ser Asp Ile Ala Ile His Ala Lys Glu Ile Leu Arg Val Arg Asn
85 90 95
Gln Leu Asn Lys Ile Tyr Gln Arg His Leu Thr Gly Lys Lys Val Leu
100 105 110
Ser Leu Glu Glu Ile Glu Lys Leu Met Glu Arg Asp Tyr Phe Met Gly
115 120 125
Ala Gln Glu Ala Leu Glu Met Gly Ile Val Asp Glu Ile Leu Asp Arg
130 135 140
Arg Val Lys Pro Gln Asn Glu Gly Gly Glu Gly Glu Gly Lys Pro Pro
145 150 155 160
Val Pro

<210> 32597
<211> 126
<212> PRT
<213> A.fumigatus

<400> 32597
His Tyr Arg Tyr Trp Val Ile Trp Arg Ile Pro Ser Val Arg Phe Leu
1 5 10 15
Asp Tyr Gln Lys Val Lys Asp Ala Glu Arg Ala Lys Ala Lys Glu Leu
20 25 30
Phe Gly Thr Ala Glu Glu Pro Thr Ala Leu Ala Ser Lys Ile Met Gly
35 40 45
Ile Lys Ser Arg Thr Phe Asp Val Pro Ser Gly Gly Ala Glu Arg Ala
50 55 60
Pro Ala Asp Lys Ala Val Arg Val Lys Leu Thr Glu Lys Glu Arg Lys
65 70 75 80
Arg Val Glu Lys Met Ile Arg Glu Ala Arg Ser Leu Gln Glu Ile Thr
85 90 95
Arg Leu Glu Lys Glu Leu Asn Glu Gly Arg Ile Pro Gly Gly Ala Leu
100 105 110
Asp Ala Gly Glu Asp Ser Glu Asp Glu Asn Gln Met Gln Thr
115 120 125

<210> 32598
<211> 102
<212> PRT
<213> A.fumigatus

<400> 32598
Asp Gln Asp Ala Ile Asp Phe Thr Asp Asn Asp Ile Ser Ser Leu Gly
1 5 10 15
Asn Phe Pro Phe Phe Pro Arg Leu His Thr Leu Leu Leu Ala Arg Asn

```
            20                  25                  30
Arg Val Lys His Ile Gln Pro Thr Ile Ala Ser Thr Ile Pro Asn Leu
        35                  40                  45
Thr Thr Leu Val Leu Thr Ala Asn Asn Met Ala Glu Leu Ala Asp Leu
    50                  55                  60
Asp Pro Leu Arg Asn Leu Thr Arg Leu Thr His Leu Val Leu Leu Glu
65                  70                  75                  80
Asn Pro Val Thr Arg Lys Glu Val Ser Cys Pro Val Phe Arg Arg Val
                85                  90                  95
Phe Arg Phe Arg Ile Gln
            100
```

<210> 32599
<211> 105
<212> PRT
<213> A.fumigatus

<400> 32599

```
Phe Lys Pro Cys Ser Asn Trp Leu Pro Phe Val Ile Ser Glu Arg Asp
1               5                   10                  15
Cys Leu Arg Ser Thr Pro Ala Lys Tyr Leu Ala Leu Arg Leu Glu Gln
            20                  25                  30
Pro Asn Asp Gln Leu Leu Trp Val Ile Tyr Gly Glu Glu Ser Tyr Ala
        35                  40                  45
Asn Asn Phe Arg Pro Leu Leu Asp Gln Val Met Thr Asp Gln Asp Gly
    50                  55                  60
Cys Phe His Pro Ser Ile Ile Leu Asn Pro Lys Asn Ile Ser Glu Val
65                  70                  75                  80
Thr Ser Tyr Gly Val Asp Ser Lys Phe Thr Ser Tyr Val Met Leu Val
                85                  90                  95
Tyr Leu Tyr Phe Thr Pro Ser Ala Val
            100                 105
```

<210> 32600
<211> 79
<212> PRT
<213> A.fumigatus

<400> 32600

```
Phe Ala Cys Met Arg Arg Met Thr Ile Asp Asn Val Ala Glu Arg Asn
1               5                   10                  15
Asp Asp Cys Ile Asn Gly Pro Gln Arg Gly Val Ile Leu Gly Ile Ser
            20                  25                  30
Ile Phe Tyr Ser Asp Arg Glu Val Ala Ala Ser Ser Lys Pro Ser Gly
        35                  40                  45
Lys Gly Phe Leu Val Leu Ser Arg Leu Ile Gly Phe Tyr Val Ala Leu
    50                  55                  60
Arg Asn Gln Arg Arg Ala Ser Asp Ala Ser Phe Lys Tyr Ile Phe
65                  70                  75
```

<210> 32601
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32601

```
Ser Arg Cys Arg Ser Thr Arg Val Arg Ile Leu Ala Leu Met Lys Ser
1               5                  10                  15
Val Val Met Ala Asn Tyr Ser Leu Trp Leu Ser Val Glu Trp Tyr Tyr
            20                  25                  30
Phe Pro Ser Thr Glu Tyr His Arg Glu Asp Lys Thr Lys His Leu Ile
        35                  40                  45
Gln Ser Asn Leu Gly Thr Arg His Arg His Asp Ser Pro Val
    50                  55                  60
```

<210> 32602
<211> 61
<212> PRT
<213> A.fumigatus

<400> 32602

```
Ile Leu Ser Arg Pro Ser Arg Leu Pro Asp Ser Gly Leu Ile Leu Thr
1               5                  10                  15
Val Ser Ile Gln Val Val His Ala Ile Glu Trp Ile Ala Glu Ile Ala
            20                  25                  30
Gly Leu Ser Lys Leu Gly Thr Ser Ala Cys Asp Val Ser Asn Leu Glu
        35                  40                  45
Phe Phe Met Asn His Glu Trp Pro Ser Leu Ile Arg Thr
    50                  55                  60
```

<210> 32603
<211> 112
<212> PRT
<213> A.fumigatus

<400> 32603

```
Ser Arg Glu Thr Ala Ala Ser Asn Phe Pro Asp His Arg Gly Thr Ala
1               5                  10                  15
Thr Ala Phe Pro Leu Ala Ala Phe Gly Leu Ser Ala Phe Phe Trp Ser
            20                  25                  30
Thr Val Ser Ala Val Ile Phe Lys Thr Thr Thr Glu Lys Phe Leu Leu
        35                  40                  45
Leu Leu Ala Leu Arg Asn Phe Leu Leu Lys Pro Val Val Ile Gln Phe
    50                  55                  60
Phe Pro Gly Leu Ala Thr Arg Gly Gln Tyr Gln Pro Leu Ser Leu Leu
65                  70                  75                  80
Gly Glu Thr Tyr Trp Glu Ser Gly Pro Gly Gly Thr Thr Arg Ser Pro
                85                  90                  95
Glu Leu Thr Asn Phe Leu Ile Glu Glu Val Cys Glu Pro Ser Pro Gln
            100                 105                 110
```

<210> 32604
<211> 188
<212> PRT
<213> A.fumigatus

<400> 32604

```
Val Ser His Gln Thr Asn Gln Lys Ser Thr Met Asn Ser Ala His Met
1               5                  10                  15
Thr Ser Gln Ile Asn Leu Ile Val Phe Leu Ile Ile Ser Val Val Ser
            20                  25                  30
Val Gln Pro Val Val Gln Glu His Asn Pro Arg Ala Gly Leu Ala Gln
```

```
        35                  40                  45
Ala Ala Met Val Thr Val Tyr Cys Thr Tyr Leu Thr Met Ser Ala Val
    50                  55                  60
Ser Met Glu Pro Asp Asp Arg Gln Cys Asn Pro Leu Ile Arg Ala Arg
65                  70                  75                  80
Gly Thr Arg Thr Ala Thr Val Val Met Gly Ala Ile Val Thr Met Ala
                85                  90                  95
Thr Ile Ala Tyr Thr Thr Thr Arg Ala Ala Thr Gln Ser Leu Met Leu
            100                 105                 110
Gly Ser Gln Ala Ala His Gly Gln Tyr Ala Gln Leu Arg Thr Asp Asp
        115                 120                 125
Asn Glu His Gly Leu Val Thr Gln Gln Pro Ser Arg Arg Glu Met Arg
    130                 135                 140
Ala Glu Ala Leu Arg Ala Ala Val Glu Ser Gly Ser Leu Pro Ala Ser
145                 150                 155                 160
Ala Leu Asp Glu Ser Asp Asp Glu Ser Asp Glu Tyr Asn Thr Gln Asp
                165                 170                 175
Asp Glu Arg Gly Ser Thr Gln His His Tyr Ser Ala
            180                 185
```

<210> 32605
<211> 248
<212> PRT
<213> A.fumigatus

<400> 32605

```
Val Ala Asp Ala Leu Phe Ala Gly Ser Asn Ser Met Met Thr Arg Ile
1               5                   10                  15
Ala Tyr Ala Phe Ile Leu Leu Ile Asn Ser Ile Val Ser Trp Ile Met
            20                  25                  30
Leu Thr Pro Trp Ala Leu Lys Lys Leu Glu His Met Thr Leu Asp Tyr
        35                  40                  45
Met Glu Ile Arg Cys Asp Gly Lys Glu Ser His Gly Trp Val Ala Val
    50                  55                  60
His Arg Ile Asn Phe Gly Leu Gly Leu Phe His Leu Ile Leu Ala Leu
65                  70                  75                  80
Met Leu Leu Gly Val Lys Ser Ser Arg Asn Gly Arg Ala Val Leu Gln
                85                  90                  95
Asn Gly Phe Trp Gly Pro Lys Val Ile Leu Trp Ile Ala Leu Val Val
            100                 105                 110
Thr Ser Phe Phe Ile Pro Glu Ser Phe Phe Leu Val Tyr Gly His Tyr
        115                 120                 125
Ile Ala Phe Phe Cys Ala Met Leu Phe Leu Leu Leu Gly Leu Ile Leu
    130                 135                 140
Leu Val Asp Leu Ala His Ser Trp Ala Glu Leu Cys Leu Gln Lys Ile
145                 150                 155                 160
Glu Asp Asn Asp Ser Arg Leu Trp Arg Gly Leu Leu Ile Gly Ser Thr
                165                 170                 175
Leu Gly Met Tyr Ile Ala Ser Ile Ala Met Thr Val Leu Met Tyr Val
            180                 185                 190
Phe Phe Ala Lys Lys His Cys Ser Met Asn Gln Ala Ala Ile Thr Val
        195                 200                 205
Ser Ile Pro Pro Asp Glu Pro Glu Glu Tyr His Glu Leu Ser Ser Tyr
    210                 215                 220
Asp Phe Ala Asp Gln Pro His Arg Leu Ser His His Leu Gly Cys Ile
225                 230                 235                 240
```

Arg Ser Thr Cys Gly Ala Gly Thr
245

<210> 32606
<211> 259
<212> PRT
<213> A.fumigatus

<400> 32606
Leu Ala His Pro His Arg Phe Pro Leu Trp Val Ser Tyr Thr Val Ile
1 5 10 15
Thr Asn Phe Arg Tyr Phe Asp Leu Ser Lys Leu Phe Pro Pro Pro Asn
20 25 30
Met Pro Lys Ser Ile Lys Phe Asn Glu Ser Asp Leu Leu Lys Ala Cys
35 40 45
Glu Ala Ala Gln Ala Gln Asn Lys Pro Asn Ile Ser Lys Ile Ala Arg
50 55 60
Glu Tyr Gly Val Pro Tyr Ser Thr Leu Arg Asp Arg Ile Lys Lys Gly
65 70 75 80
Arg Gln Ala Arg Thr Ala Arg Lys Pro Val Asn Lys Ala Leu Asp Gly
85 90 95
Tyr Gln Glu Glu Ala Leu Ile Gln Trp Ile Val Trp Met Arg Asp His
100 105 110
Asn Met Pro Val Thr Pro Lys Leu Leu Glu Glu Phe Ala Asn Gln Ser
115 120 125
Leu Gln Arg Ala Gly Glu Ala Arg Gln Val Ser Arg Val Trp Ala Tyr
130 135 140
Arg Phe Glu Lys Arg Leu Pro Glu His Leu Asn Leu Gly Pro Val Lys
145 150 155 160
Gln Lys Met Lys Glu Ser Lys Arg Ile Lys Ala Glu Asp Ala Gly Leu
165 170 175
Leu Ala Asn Trp Tyr Asn Gln Leu Ala Asn Val Val Lys Asp Thr Pro
180 185 190
Pro Arg Leu Val Tyr Asn Phe Asp Glu Cys Gly Phe Arg Pro Gly Glu
195 200 205
Gly Lys Ala Arg Asn Val Ile Gly Leu Lys Gly Ser Cys Leu Asp Leu
210 215 220
Ala Glu Ser Glu Lys Gly Glu Asn Ile Thr Thr Ile Glu Cys Ile Ala
225 230 235 240
Ala Asp Gly Trp Gln Met Asp Pro Trp Phe Ile Phe Lys Gly Lys Leu
245 250 255
Leu Leu Phe

<210> 32607
<211> 214
<212> PRT
<213> A.fumigatus

<400> 32607
Pro Phe Leu Leu Pro Lys Gly Asn Gly Ile Phe Met Glu Cys Trp Leu
1 5 10 15
Asn Glu Ser Glu Ala Leu Pro Leu Asn Ile Thr Ile Ala Thr Gln Ala
20 25 30
Asn Gly Trp Ile Ser Asp Glu Leu Ala His Gln Trp Leu Gln Ser Phe
35 40 45

```
Ile Lys Ala Thr Asn Glu Arg Thr Lys Arg Gly Glu Lys Arg Ile Leu
    50                  55                  60
Ile Phe Asp Gly His Gly Ser His Leu Thr Val Asp Phe Leu Gln Thr
65                  70                  75                  80
Cys Glu Asp Asn Gly Val Ile Pro Phe Gly Phe Leu Pro His Thr Thr
                85                  90                  95
His Leu Cys Gln Pro Leu Asp Gly Lys Pro Phe Leu Ser Tyr Lys Gln
            100                 105                 110
His Phe Arg Arg Ile Asn Asn Glu Leu Ser Tyr Trp Ala Gly Glu Pro
        115                 120                 125
Val Gly Lys Ser Glu Phe Leu Arg Val Ile Gly Pro Val Arg Glu Lys
    130                 135                 140
Ala Phe Asn Gln Arg Ile Ile Cys Glu Ala Phe Lys Asp Arg Gly Ile
145                 150                 155                 160
Trp Pro Val Asp Gly Ser Lys Ile Val Asp Asn Leu Ala Ile Gln Ala
                165                 170                 175
Trp Glu Gln Ile Pro Asp Val Tyr Ala Pro Asp Leu Asp Ala Cys Leu
            180                 185                 190
Arg Gly Thr Pro Ser Pro Pro Pro Ile Ser Ser Ser Ser Val Asp Ile
        195                 200                 205
Thr Pro Pro Arg Thr Ile
    210

<210> 32608
<211> 267
<212> PRT
<213> A.fumigatus

<400> 32608
Ser Ser Phe Ile Gln Pro Pro Ile Leu Ser Glu Arg Phe Ala Ala Thr
1               5                   10                  15
Ala Ala Phe Gln Tyr Tyr Ser Arg Leu Pro Ser Leu Gln Asn Leu Val
            20                  25                  30
Ala Phe Ile Gln His Lys Phe Cys Asp Arg Ser Asp Glu Lys Cys Val
        35                  40                  45
His His Ala Glu Ser Ile Leu Ser Ala Asp Ser Val Asp Val Asn Tyr
    50                  55                  60
Asp Ser Ile Ser His Ala Leu Thr Val Ser Gly Tyr Trp Ser Thr Ser
65                  70                  75                  80
Pro Gly Gln Gly Trp Thr Glu Gln Ile Arg Lys His Ala Ala Asp Thr
                85                  90                  95
His Gln Val Glu Val Gly Leu Leu Gly Val Glu Ser Ala Thr Glu Pro
            100                 105                 110
Glu Glu Leu Lys Met Gly Gly Leu Leu Gly Val Val Gly Gln Asp Glu
        115                 120                 125
Lys Leu Ser Thr Leu Gly Lys Met Lys Gly Gln Thr Glu Leu Ala Pro
    130                 135                 140
Ile Ala Asp His Val Pro Glu Pro Thr Leu Phe Ser Phe Pro Ser Arg
145                 150                 155                 160
His His Pro Leu Pro Ala Asp Ala Thr Tyr Thr Val Ser Phe Pro Ala
                165                 170                 175
Pro Thr Gly Leu His Pro Thr Leu Thr Ile Ser Met Pro Arg Ala Ser
            180                 185                 190
Leu Arg Arg Pro Pro Ala Pro Pro Gly Arg His Val Arg Pro Pro His
        195                 200                 205
Ile Pro Asp Pro Pro Val Val Asp Leu Arg Arg Gln Ile Pro Ala Leu
```

```
    210                 215                 220
Asn His Arg Pro Pro Leu Pro Gln Leu Pro Gln Pro Ser Arg Ser Pro
225                 230                 235                 240
Arg Cys Asn Arg Arg Asn Arg Ser Arg Ser Pro Arg Arg Val Leu Leu
                245                 250                 255
Ser Met Gly Leu Lys Leu Ala Ala Arg Ala Pro
            260                 265
```

<210> 32609
<211> 159
<212> PRT
<213> A.fumigatus

<400> 32609

```
Gly Gly Pro Pro His Pro Arg Asp Ala Thr Cys Ala Leu His Thr Tyr
1               5                   10                  15
Leu Thr Leu Pro Ser Trp Ile Phe Gly Asp Lys Tyr Gln Leu Ser Thr
            20                  25                  30
Thr Asp Arg Leu Phe Leu Ser Ser His Asn Leu Ala Ala Leu Arg Ala
        35                  40                  45
Val Thr Gly Glu Thr Asp Leu Glu Ala Pro Asp Gly Phe Phe Ser Arg
    50                  55                  60
Trp Gly Ser Asn Trp Leu Leu Glu Leu Pro Asn Pro Leu Pro Pro Gly
65                  70                  75                  80
Tyr Gln Pro Glu Glu Trp Asn Pro Ser Asn Pro Phe Ala Pro Ala Lys
                85                  90                  95
Pro Gly Pro Pro Glu Phe Gly Tyr Arg Ser Ala Ala Val Pro Arg Pro
            100                 105                 110
Ile Val Phe Trp Pro Ser Arg Lys Lys Lys Ala Gln Asn Gly Phe Asn
        115                 120                 125
Pro Leu Asn Trp Val Ile Ser Ala Glu Gly Leu Phe Trp Gly Pro Asn
    130                 135                 140
Tyr Phe Phe Phe Ser Pro Gly Pro Gly Glu Gly Arg Asn Pro Ser
145                 150                 155
```

<210> 32610
<211> 225
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (18)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32610

```
His Asp Glu Glu His Gly Phe Ser Lys Trp Ser Glu Gln Glu Gly Leu
1               5                   10                  15
Asp Xaa Gly His Arg His His His Arg Tyr Asn Pro Pro Trp Gly Met
            20                  25                  30
Phe Arg Gly Leu Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg
        35                  40                  45
Gly Phe Gly Pro His Phe Tyr His Phe His His Ala Met His Pro Gly
    50                  55                  60
Phe His Phe Phe His His Ser His Asp Pro Thr Arg Phe Thr Pro Pro
65                  70                  75                  80
```

```
Val Asp Val Phe Val Thr Pro Thr His Thr Ile Ile His Val Ser Leu
                85                  90                  95
Pro Gly Ala Gln Arg Ser Asp Leu Ser Val Ala Tyr Asp Ala Ser Arg
            100                 105                 110
Ala Val Leu Arg Met Ala Gly Val Val Leu Arg Pro Gly Val Asp Glu
        115                 120                 125
Glu Met Arg Arg Ala Leu Leu Ile Gly Glu Arg Gly Arg His Leu Gly
    130                 135                 140
Val Phe Glu Arg Glu Met Pro Ile Ser His Ser Val Ala Val Glu Gly
145                 150                 155                 160
Ile Arg Ala Arg Leu Val Asp Gly Val Leu Arg Val Ala Leu Pro Arg
                165                 170                 175
Val Glu Gly Asp Val Pro Gln Pro Asp Glu Glu Met Asp Glu Val Asp
            180                 185                 190
Arg Glu Ser Ala Ser Arg Glu Phe Asn Ser Asp Gly Lys Glu Glu Glu
        195                 200                 205
Arg Glu Val Glu Asp Glu Val Glu Arg Glu Tyr Val Lys Val Asp Ile
    210                 215                 220
Gln
225
```

<210> 32611
<211> 64
<212> PRT
<213> A.fumigatus

<400> 32611

```
Tyr Met Ala His Gly Gln Glu Ser Val Gly Gly Gly Arg Leu Ala Trp
1               5                   10                  15
Val Ala Asp Ser Leu Trp Asn Tyr Val Lys Ala Tyr Ser Thr Ala Ile
            20                  25                  30
Gln Gly Ser Ile Asn Ser Arg Gln Val Phe Ile Leu Ser Asn Leu Phe
        35                  40                  45
Met Leu Arg Leu Ile Gly Val Thr Ile Arg Ser Phe Asp Gly Glu Gly
    50                  55                  60
```

<210> 32612
<211> 106
<212> PRT
<213> A.fumigatus

<400> 32612

```
Leu Ile Phe Phe Gln Leu Leu Gln Thr His Leu Lys Glu Met Phe Ser
1               5                   10                  15
Ile Ile Tyr Thr Pro Thr Glu Gly Asp Ala Ile Gln Asn Tyr Ser Arg
            20                  25                  30
Leu Phe Arg Arg Pro Glu Gly Cys Phe Leu Asn Ile Asn Asp Gln Asp
        35                  40                  45
Ala Ile Glu Glu Cys Leu Ser Asn Phe Gly Arg Gly Glu Asp Ile Asp
    50                  55                  60
Tyr Ile Val Val Ser Asp Gly Glu Glu Val Pro Gly Pro Phe His Ser
65                  70                  75                  80
His Cys Tyr Leu Met His Asp Ser Asp Arg Val Asn Tyr Arg Phe Ser
                85                  90                  95
Glu Leu Ala Thr Lys Val Leu Val Arg Phe
            100                 105
```

<210> 32613
<211> 127
<212> PRT
<213> A.fumigatus

<400> 32613
Gly Arg Ala Asn Phe His Tyr Ala Arg Trp Pro Met Asp Gly Ile Leu
1 5 10 15
Met Glu Ala Val Gln Gly Met Ser Val Ile His Asn Pro Thr Phe Asn
20 25 30
Lys Gly Ser Ala Phe Thr Glu Glu Glu Arg Lys Asn Phe Lys Leu His
35 40 45
Gly Leu Val Pro Pro Asn Thr Gln Thr Leu Glu Glu Gln Val His Arg
50 55 60
Ala Tyr Glu Gln Tyr Ser Ser Arg Ala Asp Asp Leu Ala Lys Asn Thr
65 70 75 80
Phe Met Ala Ser Met Lys Met Gln Asn Glu Val Leu Tyr Phe Arg Val
85 90 95
Ser Thr Ile Ile Phe Lys Gly Glu Ala Asp Ile Cys Glu Thr Phe Phe
100 105 110
Thr His Val Thr Phe Asp Ile Glu Phe Glu Asn Leu Leu Arg Asp
115 120 125

<210> 32614
<211> 153
<212> PRT
<213> A.fumigatus

<400> 32614
Cys Phe Ala Pro Leu Gln Leu Thr Gln Pro Phe Ser Arg Cys Leu Asp
1 5 10 15
Lys Pro Gly Leu Leu Val Lys Ser Leu Gly Asp Gln Leu Met Pro Ala
20 25 30
Gln Lys Pro Phe Ala Arg Ser Asp Tyr Glu Trp Ser Asp Gly Glu Arg
35 40 45
Asp Leu Leu Ser Val Val Lys Lys Val Lys Pro His Ala Leu Ile Gly
50 55 60
Thr Ser Thr Lys Pro Asn Ala Phe Thr Glu Glu Ile Ile Arg Glu Met
65 70 75 80
Ala Lys His Val His Ser Pro Ile Val Phe Pro Leu Ser Asn Pro Thr
85 90 95
Arg Leu His Glu Ala Gln Pro Lys Asp Ile Asn Gln Trp Thr Asn Gly
100 105 110
Arg Ala Leu Ile Ala Thr Gly Ser Pro Phe Pro Pro Val Asp Arg Asn
115 120 125
Gly Ala Lys Tyr Glu Ile Gly Lys Tyr Arg Leu Ser Lys Val Cys Arg
130 135 140
His Asp Met Thr His Trp Lys Thr Leu
145 150

<210> 32615
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32615
Gln Gly Gln Leu Gln Ile Leu Gly Ile Gly Asp Gln Gly Val Gly Ala
1 5 10 15
Ile Leu Ile Ser Val Ala Lys Leu Val Ile Thr Thr Ile Cys Ala Gly
20 25 30
Ile His Pro Ser Arg Gln Leu Pro Val Val Leu Asp Cys Gly Thr Asp
35 40 45
Val Gly Leu Ala Asp Ile Asn Arg Ser Leu Val Cys
50 55 60

<210> 32616
<211> 94
<212> PRT
<213> A.fumigatus

<400> 32616
Arg Pro Phe Ala Val Lys Thr Leu Ala Phe Ile Asp Ala Lys Arg Leu
1 5 10 15
Leu Asp Gly Phe Arg Pro His Met Ala Cys Phe Asn Asp Asp Ile Gln
20 25 30
Gly Thr Gly Cys Val Thr Leu Ala Ala Leu Met Ala Ala Leu His Val
35 40 45
Ser Asp Val Lys Leu Gln Asp Val Arg Ile Val Ile Phe Gly Ser Gly
50 55 60
Ser Ala Gly Thr Gly Ile Ala Gln Gln Ile Ala Gly Thr Ile Ala Thr
65 70 75 80
Glu Thr His Lys Ser Lys Asp Glu Ala Ala Lys Gln Ile Trp
85 90

<210> 32617
<211> 166
<212> PRT
<213> A.fumigatus

<400> 32617
Cys Arg Gln Ser Asp Thr Pro Gly Ser Leu Asp Ile Ile Ile Glu Ala
1 5 10 15
Gly His Val Trp Ser Lys Ser Ile Glu Lys Ser Phe Gly Ile Tyr Glu
20 25 30
Gly Gln Ser Leu His Cys Glu Gly Thr Ser Val Ala Trp Leu Ala Val
35 40 45
Gln Ile Ala Ala Lys Asp Glu Thr Gln Phe His Ser Gln Met Asp Val
50 55 60
Cys Phe Gly Glu Lys Leu Ser Ser Ser Gly Asp Glu Ser Ile His Lys
65 70 75 80
Leu Ile Ile Leu Leu Ser Ser Ser Ser Gly Leu Ser Lys Ala Glu Val
85 90 95
Lys Leu Ile Val Lys Gln Phe Leu Ile Leu Ser Pro Val Leu Ala His
100 105 110
Lys Ala Pro Val Asp Val Cys Glu Pro Tyr Ile Cys Thr Thr Val Gln
115 120 125
Asn Tyr Trp Lys Leu Pro Ala Trp Val Asp Ser Ser Ala Asn Ser Cys
130 135 140
Asp Tyr Gln Leu Gly Asp Gly Tyr Gln Asn Arg Thr Asn Thr Leu Val
145 150 155 160
Ala Asn Ser Glu Asn Leu

165

<210> 32618
<211> 66
<212> PRT
<213> A.fumigatus

<400> 32618
Leu Ser Gly Gly Val Thr Asn Trp Asn Asn Tyr Gly Met Thr Tyr Gly
1 5 10 15
Trp Met Met Ser Arg Gln Lys Ser Cys His Arg Thr Tyr Arg Ser Lys
20 25 30
Tyr Lys Val Cys Leu Gln Tyr Leu Asn Gly Pro Ala Ile Tyr Leu Asp
35 40 45
Ser Asp Phe Ile Lys Cys Lys Gln Phe Asp Asn Thr Tyr Gln Ser Ile
50 55 60
Glu Leu
65

<210> 32619
<211> 154
<212> PRT
<213> A.fumigatus

<400> 32619
Thr Pro Gly Lys Arg Leu Ser Lys Leu Gln Arg Gly Lys Ala Ser Ile
1 5 10 15
Ser Arg Lys Ala Tyr Gln Ile Cys Phe Ala Ala Ser Ser Phe Asp Leu
20 25 30
Trp Val Ser Val Ala Ile Val Pro Ala Ile Cys Cys Ala Ile Pro Val
35 40 45
Pro Ala Glu Pro Glu Pro Lys Met Thr Met Arg Thr Ser Cys Asn Leu
50 55 60
Thr Ser Leu Thr Cys Lys Ala Ala Ile Asn Ala Ala Arg Val Thr His
65 70 75 80
Pro Val Pro Trp Ile Ser Ser Leu Lys Gln Ala Met Cys Gly Arg Asn
85 90 95
Pro Ser Arg Ser Leu Leu Ala Ser Met Lys Ala Lys Val Phe Thr Ala
100 105 110
Lys Gly Arg Gln Ser His Gly Leu Arg Phe Lys Leu Arg Pro Lys Thr
115 120 125
Arg Leu Asn Phe Thr His Lys Trp Met Tyr Ala Leu Gly Lys Ser Phe
130 135 140
Leu Ala Val Val Thr Asn Leu Phe Thr Asn
145 150

<210> 32620
<211> 472
<212> PRT
<213> A.fumigatus

<400> 32620
Lys Pro Phe Gln Leu Tyr Arg Leu Ile Arg Ile Asp Ala Glu Thr Ile
1 5 10 15
Arg Ile Leu Val Ser Thr Asp Asn His Val Gly Tyr Asn Glu Arg Asp
20 25 30

```
Pro Ile Arg Gly Asp Asp Ser Trp Lys Ser Phe His Glu Val Met Cys
        35                  40                  45
Leu Ala Lys Glu Arg Asp Val Asp Met Val Leu Leu Ala Gly Asp Leu
    50                  55                  60
Phe His Glu Asn Lys Pro Ser Arg Lys Ser Met Tyr Gln Val Met Arg
65                  70                  75                  80
Ser Ile Arg Met Asn Cys Leu Gly Asp Lys Pro Cys Glu Leu Glu Met
                85                  90                  95
Leu Ser Asp Ala Ser Glu Asn Phe Gln Gly Ala Phe Asn His Val Asn
            100                 105                 110
Tyr Glu Asp Leu Asp Ile Asn Val Ala Ile Pro Ile Phe Ser Ile His
        115                 120                 125
Gly Asn His Asp Asp Pro Ser Gly Glu Gly His Leu Ala Ala Leu Asp
    130                 135                 140
Leu Leu Gln Val Ser Gly Leu Leu Asn Tyr Tyr Gly Arg Thr Pro Glu
145                 150                 155                 160
Ser Asp Asn Ile His Ile Lys Pro Val Leu Leu Gln Lys Gly Arg Thr
                165                 170                 175
Lys Leu Ala Leu Tyr Gly Met Ser Asn Val Arg Asp Glu Arg Leu Phe
            180                 185                 190
Arg Thr Phe Arg Asp Gly Lys Val Lys Phe Tyr Gln Pro Ser Ile Gln
        195                 200                 205
Lys Asn Asp Trp Phe Asn Leu Met Cys Val His Gln Asn His His Ala
    210                 215                 220
Tyr Thr Glu Thr Gly Tyr Leu Pro Glu Asn Phe Leu Pro Asp Phe Leu
225                 230                 235                 240
Asp Leu Val Ile Trp Gly His Glu His Glu Cys Leu Ile Asn Pro Arg
                245                 250                 255
Leu Asn Pro Glu Thr Lys Phe His Val Met Gln Pro Gly Ser Ser Val
            260                 265                 270
Ala Thr Ser Leu Val Pro Gly Glu Ala Val Pro Lys His Val Ala Ile
        275                 280                 285
Leu Ser Ile Thr Gly Arg Glu Phe Lys Cys Glu Pro Ile Arg Leu Lys
    290                 295                 300
Thr Val Arg Pro Phe Ala Met Arg Glu Ile Val Leu Ser Glu Glu Lys
305                 310                 315                 320
Gly Ala Gln Lys Leu Ala Arg Lys Glu Asn Asn Arg Thr Glu Val Thr
                325                 330                 335
Arg Phe Leu Ile Ser Ile Val Glu Glu Leu Ile Glu Glu Ala Gln Ala
            340                 345                 350
Glu Trp Leu Glu Met Gln Asp Glu Ala Asp Asp Asp Glu Glu Arg Glu
        355                 360                 365
Val Pro Leu Pro Leu Val Arg Leu Arg Val Glu Ile Ser Thr Pro Glu
    370                 375                 380
Gly Gly Ser Tyr Asp Cys Glu Asn Pro Gln Arg Phe Ser Asn Arg Phe
385                 390                 395                 400
Val Gly Lys Val Ala Asn Val Asn Asp Val Val Gln Phe Tyr Arg Lys
                405                 410                 415
Lys Lys Asn Thr Thr Thr Arg Lys Lys Asp Asp Glu Ile Asp Glu Ala
            420                 425                 430
Ala Met Ser Gln Leu Ser Thr Leu Asp Thr Val Lys Val Glu Gln Leu
        435                 440                 445
Val Arg Glu Phe Leu Ala Ala His Ser Leu Ile Phe Leu Arg Leu Asn
    450                 455                 460
Arg Pro Asp Trp Lys Leu Arg Pro
465                 470
```

<210> 32621
<211> 741
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (5)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32621

```
Tyr Thr His Cys Xaa Gly Pro Phe Arg Ala Pro Val Val Glu Thr Ser
1               5                  10                  15
Leu Tyr Pro Leu Glu Cys Thr His Asn Phe Thr Ala Asp Tyr Val Trp
            20                  25                  30
Lys Ser Thr Ser Phe Asp Arg Met Gln Leu Ala Met Lys Thr Phe Ala
        35                  40                  45
Val Asp Glu Met Ser Val Ser Gly Tyr Ile Phe His Arg Leu Leu Gly
    50                  55                  60
His Glu Val Ala Ala Ala Pro Met Lys Thr Gln Leu Pro Lys Lys Phe
65                  70                  75                  80
Ser Val Pro Gly Leu Pro Glu Leu Asn Gly Ser Gln Ile Asn Ala Val
                85                  90                  95
Lys Ser Val Leu Gln Arg Pro Met Ser Leu Ile Gln Gly Pro Pro Gly
            100                 105                 110
Thr Gly Lys Thr Val Thr Ser Ala Thr Ile Ile Tyr His Leu Ala Lys
        115                 120                 125
Ile Asn Gly Gly Gln Val Leu Val Cys Ala Pro Ser Asn Val Ala Val
    130                 135                 140
Asp Gln Leu Cys Glu Arg Ile His Arg Thr Gly Leu Lys Thr Val Arg
145                 150                 155                 160
Val Thr Ala Lys Ser Arg Glu Asp Val Glu Ser Pro Val Gly Phe Leu
                165                 170                 175
Ser Leu His Glu Gln Val Arg Leu Asn Asp Ser Asn Ile Glu Leu Ile
            180                 185                 190
Lys Leu Asn Gln Leu Lys Ala Glu Leu Gly Glu Leu Ser Ser Gln Asp
        195                 200                 205
Glu Lys Arg Leu Lys Gln Leu Thr Arg Ser Ala Glu Arg Glu Ile Leu
    210                 215                 220
Asn Asn Ala Asp Val Ile Cys Cys Thr Cys Val Gly Ala Gly Asp Pro
225                 230                 235                 240
Arg Leu Ala Lys Leu Lys Phe Arg Thr Val Leu Ile Asp Glu Ser Thr
                245                 250                 255
Gln Ser Ala Glu Pro Glu Cys Met Ile Pro Leu Val Leu Gly Cys Lys
            260                 265                 270
Gln Val Val Leu Val Gly Asp His Gln Gln Leu Gly Pro Val Ile Met
        275                 280                 285
Asn Lys Lys Ala Ala Lys Ala Gly Leu Asn Gln Ser Leu Phe Glu Arg
    290                 295                 300
Leu Val Ile Leu Gly Cys Ser Pro Ile Arg Leu Asn Val Gln Tyr Arg
305                 310                 315                 320
Met His Pro Cys Leu Ser Glu Phe Pro Ser Asn Met Phe Tyr Glu Gly
                325                 330                 335
Ser Leu Gln Asn Gly Val Ser Ala Phe Asp Arg Leu Arg Arg Asp Val
            340                 345                 350
```

```
Asp Phe Pro Trp Pro Val Val Asp Ser Pro Met Met Phe Trp Ser Asn
        355                 360                 365
Leu Gly Asn Glu Glu Ile Ser Ala Ser Gly Thr Ser Tyr Leu Asn Arg
    370                 375                 380
Thr Glu Ala Thr Asn Val Glu Lys Ile Val Thr Arg Phe Phe Lys Ala
385                 390                 395                 400
Gly Val Gln Pro Ala Asp Ile Gly Ile Ile Thr Pro Tyr Glu Gly Gln
                405                 410                 415
Arg Ser Tyr Ile Val Ser Ser Met Gln Ala Asn Gly Thr Phe Lys Lys
            420                 425                 430
Glu His Tyr Lys Glu Ile Glu Val Ala Ser Val Asp Ala Phe Gln Gly
        435                 440                 445
Arg Glu Lys Asp Phe Ile Ile Leu Ser Cys Val Arg Ser Asn Asp His
    450                 455                 460
Gln Gly Ile Gly Phe Leu Ser Asp Pro Arg Arg Leu Asn Val Ala Leu
465                 470                 475                 480
Thr Arg Ala Lys Tyr Gly Leu Val Ile Leu Gly Asn Pro Lys Val Leu
                485                 490                 495
Ser Lys His Pro Leu Trp Asn Cys Leu Leu Gln His Phe Lys Glu Arg
            500                 505                 510
His Cys Leu Val Glu Gly Pro Leu Ser Asn Leu Gln Glu Ser Leu Ile
        515                 520                 525
Gln Phe Ser Arg Pro Lys Gln Ser Tyr Arg Gly Pro Gln Arg Phe Gln
    530                 535                 540
Met Ala Tyr Asn His Ala Ser Asn Val Thr Ser Gly Met Met Asn Gly
545                 550                 555                 560
Arg Asn Gly His Arg Asn Glu Phe His Asp Thr Gly Ser Val Ile Gly
                565                 570                 575
Tyr Ile Pro Asp Asp Val Ser Ser Val His Ser Ser Ala Leu Gly Gly
            580                 585                 590
Val Ser Ile Pro Ser Gly Tyr Pro Pro Met Phe Gln Asn Phe Ala Asp
        595                 600                 605
Ala Trp Pro Ala Leu Pro Gly Ala Arg Arg Ala Asn Gly Ala Arg Gly
    610                 615                 620
Lys Gly Ala Pro Ser Val Ala Gly Glu Ser Val Ala Ala Thr Glu Ser
625                 630                 635                 640
Asp Ile Thr Gly Ser Ile Ile Asp Gly Arg Ser Val Asp Gln Gly Gly
                645                 650                 655
Val Ser Leu Ala Gly Leu Ser Ile Asn Asp Met Ser Lys Gln Pro Ser
            660                 665                 670
Leu Ser Gln Ser Asp Arg Leu Lys Arg Tyr Val Glu Ser Gly Gly Arg
        675                 680                 685
Glu Pro Tyr Arg Ala Gly Val Pro Asp Asn Gly Ser Ile Phe Gly Gly
    690                 695                 700
Ser Ser Ala Ser Ile Arg Val Thr Arg Gly Val Pro Gly His Val His
705                 710                 715                 720
Asp Asp Asp Asp Thr Arg Ser Val Ser Thr Ala Phe Ala Ser Gln Val
                725                 730                 735
Gly Gly Asn Tyr Asp
            740
```

<210> 32622
<211> 811
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32622

```
Leu Asn Xaa Phe Met Ala Ala Cys Ala Gln Ala Asp Ile Leu Val Ser
1               5                  10                  15
Leu Leu Leu Ile Val Val Ile Arg Ser Gln Val Arg His Leu Gln Ala
            20                  25                  30
Arg Leu Leu Tyr Met Gln His Phe Ile Tyr Ile Asp Asp Val Asp Ser
        35                  40                  45
Gly Glu Met Gly Tyr Ala Leu Ser Thr Phe Glu Ala Val Leu Thr Tyr
    50                  55                  60
Leu Val Thr Asp Ser Ala Gly Leu Arg Arg Ala Ser Ser Arg Asn Lys
65                  70                  75                  80
Arg Leu Trp Asn Ala Thr Arg Ala Gly Arg Val Gly Glu Met Lys Ala
                85                  90                  95
Ile Leu Glu Pro Lys Gly Asp His Ser Ser Met Asp Asp Gly Pro Asp
            100                 105                 110
Glu Pro Glu Gly Lys Ser Val Phe Phe Lys Thr Gly Glu Asp Gly Glu
        115                 120                 125
Val Asp Glu Pro Leu Gln Gly His Ser Ile His Arg Arg Leu Ser Arg
    130                 135                 140
Ser Asn Asn Glu Pro His Glu Phe Asp Glu Arg Pro Ser Asp Val Pro
145                 150                 155                 160
Pro Leu Ala His Val Phe Pro Phe Gln Thr Trp Glu Asn Thr Ser Pro
                165                 170                 175
Pro Lys Glu Val Gln Arg Pro Val Lys Lys Val Ser Met Asp Val Arg
            180                 185                 190
Ser Ile Ser Glu Ser Ser Ala Thr Ser Leu Leu Ser Arg Thr Thr Thr
        195                 200                 205
Ile Glu Ser Met Thr Ser Ala Ile Glu Gly Asp Ser Ser Ile Glu Thr
    210                 215                 220
Leu Thr Lys Thr Gln Asp Pro Ala Gly Asp Ser Ile Pro Met Met Ala
225                 230                 235                 240
Val Asp Ser Arg Gln Pro Glu Ala Leu Lys Tyr Leu Leu Ser Leu Glu
                245                 250                 255
Glu Tyr Tyr Ser Leu Glu Asp Ile Leu Glu Asp Thr Asn Thr Asp Gly
            260                 265                 270
Thr Thr Leu Leu Ser Ala Ala Val Gln Leu Gly His Pro Glu Met Val
        275                 280                 285
Glu Ile Leu Leu Asp Phe Leu Phe Ser Ala Thr Asp Glu Arg Thr Ile
    290                 295                 300
Ala Gly Tyr Leu Lys Lys Ala Asp Met His Gly Arg Thr Val Ala His
305                 310                 315                 320
Tyr Leu Phe Ser Thr Pro Ser Val Met Tyr Arg Leu Glu Arg Leu Val
                325                 330                 335
Pro Trp Arg Gln Arg Asp Arg Asn Gly Gln Thr Pro Leu Tyr Ala Leu
            340                 345                 350
Cys Arg Ser Tyr Asp His Pro Asp Tyr Lys Ser Met Val Asn Glu Ala
        355                 360                 365
Leu Thr Ala Ala Gln Arg Ser Gln Gly Asp Gly Leu Pro Leu Arg Leu
    370                 375                 380
Asp Asp His Val Asp Ser Lys Gly Asn Thr Leu Leu His Ile Val Gly
385                 390                 395                 400
```

```
Asp Pro Glu Ile Thr Ile Arg Ile Leu Gln Glu Ser Asp Cys Asp Pro
                405                 410                 415
Asn Ala Thr Asn Glu Lys Lys Phe Thr Pro Leu Met Met Ala Ser Lys
            420                 425                 430
Tyr Gly Arg Val Asp Gln Val Arg Ile Leu Phe Leu Asp Pro Arg Val
        435                 440                 445
Asp Val His Leu Lys Glu Ala Arg Gly Leu Thr Ala Val Glu Leu Ala
    450                 455                 460
Lys Asp Asp Glu Val Arg Asn Arg Ile Asp Asp Leu Ile Leu Val Ser
465                 470                 475                 480
Asn Ser Pro Ser Ala Tyr Asp Asp Pro Ser Gly Arg Val Thr Thr Val
                485                 490                 495
Val Arg Ser Tyr Phe Val Glu Asp Ala Thr Val Arg Phe Val Leu Lys
            500                 505                 510
Ser Gly Ala Pro Ser Ser Gln Thr Gln Ser Asn Glu Ser Arg Ala Gly
        515                 520                 525
Ser Thr Thr Tyr Thr Val Thr Thr Cys Arg Arg Thr Leu Ser Asp Phe
    530                 535                 540
Glu Asn Leu Ala Arg Cys Leu Ala Met Glu His Pro Ala Ser Tyr Ile
545                 550                 555                 560
Pro Ser Phe Ser Asp Phe Arg Asn Pro Phe Gln Ile His Ser Lys Pro
                565                 570                 575
Ser Arg Ser Val Leu His Asn Met Gln Glu Arg Leu Asp Arg Phe Leu
            580                 585                 590
Lys Ile Leu Leu Thr His Pro Thr Phe Ala Thr His Glu Met Leu Trp
        595                 600                 605
Glu Phe Phe Leu Val Pro Glu Leu Gln Pro Glu Met Met Thr Asp Arg
    610                 615                 620
Ser Arg Arg Lys Ala Leu Val Leu Ser Glu Ser Ile Ala Asp Asp Tyr
625                 630                 635                 640
Glu Pro Val Thr Ala Glu Gly Met Arg Glu Thr Glu Gln Phe Val Ala
                645                 650                 655
Gln Ala Gln Asp Met Val Arg Ala Leu His Ala Asn Thr Arg Ser Leu
            660                 665                 670
Ile Arg Arg Gly His Ser Leu Gln Asn Ala Ala Ser Asp Met Ala Asp
        675                 680                 685
Ala Leu Ser Leu Cys Ser Ser Val Val Ser Thr Leu Gln Glu Pro Thr
    690                 695                 700
Asn Ala Leu Pro Arg Ser His Val Asp Ala Phe Ala Arg Tyr Ala Ser
705                 710                 715                 720
Tyr Leu Ser Thr Ser Ser Ser Asp Ser Ser Pro Leu Leu Gln Phe Leu
                725                 730                 735
Ser Val Phe Ser Ser Ile Asp Asn Thr Thr Val Ala Ile Leu Arg Ser
            740                 745                 750
Leu Ser Arg Pro Ile Phe Ala His Ile Glu Leu Thr Ile His Asn Pro
        755                 760                 765
Gln Ser Val Arg Gln Ser His Val Ser His Leu Ile Val Leu Ala Pro
    770                 775                 780
Glu Ile Gln His Gln Leu Pro Trp Pro Gly Gly Ile Pro Thr Lys Val
785                 790                 795                 800
Ser Ser Arg Ser Gly Thr Glu Asp Ser Arg Gly
                805                 810
```

<210> 32623
<211> 105
<212> PRT

<213> A.fumigatus

<400> 32623
Ser Arg Arg Gln Cys His Pro Thr Gln Ser Ser Ser Lys Leu Ser Ala
1 5 10 15
Ser Leu Thr Ala Ser Asp Ser Ala Ser Asp Ser Ser Ala Ala Gly Ala
20 25 30
Val Glu His Leu Ser Ser Pro Ser Ser Thr Leu Ala Ile Leu Gly Val
35 40 45
Ser Ser Ala Glu Pro Cys Ser Pro Ser Ser Leu Leu Ala Ile Val Ser
50 55 60
Gly Met Leu Arg Ala Ser Ser Ser Ala Arg Leu Thr Leu Asn Glu Gly
65 70 75 80
Thr Pro Val Val Thr Cys Gly Ser Arg Asp Ser Leu Ala Asp Glu Arg
85 90 95
Ser Val Trp Phe Glu Ile Ser Trp Thr
100 105

<210> 32624
<211> 187
<212> PRT
<213> A.fumigatus

<400> 32624
Pro Leu Leu Leu Gln Ser Met Phe Ile Gln Gln Lys Asn Arg Met Pro
1 5 10 15
His Lys Thr Asn Ser Arg Gln Ala Asn Leu Gln Asn Leu Thr Thr Ser
20 25 30
Ser Ser Val Thr Ser Ala Val Asn Ser Ala Leu Glu Ser Ala Gly Val
35 40 45
Asp Ile Ser Ser Thr Asp Leu Ala Lys Ala Leu Asp Glu Ala Gln Lys
50 55 60
Gln Leu Lys Ile Lys Asp Phe Tyr Asp Ile Gly Leu Trp Gly Tyr Cys
65 70 75 80
Asp Gly Asp Val Thr Asn Gly Asn Tyr Lys Thr Gln Asn Cys Ser Lys
85 90 95
Pro Lys Ala Glu Phe Tyr Phe Asn Pro Ile Thr Ile Trp Gln Leu Asn
100 105 110
Asp Thr Gly Val Glu Asp Val Leu Pro Lys Asp Leu Ser Lys Ala Leu
115 120 125
Asp Val Tyr Lys Asn Val Ser Lys Trp Met Phe Ile Ala Tyr Ile Val
130 135 140
Ala Phe Ile Val Thr Ile Val Glu Leu Val Val Gly Leu Phe Ala Ile
145 150 155 160
Cys Ser Arg Trp Gly Ser Cys Val Thr Ser Leu Val Ser Ala Val Arg
165 170 175
Ser Ser Phe Phe Val Ser Val Tyr Ser Arg His
180 185

<210> 32625
<211> 134
<212> PRT
<213> A.fumigatus

<400> 32625
Val Ser Phe Leu Phe Ile Thr Ala Ala Ser Val Thr Ser Thr Ala Leu

```
1               5                   10                  15
Phe Thr Val Leu Lys Gly Thr Phe Asn Ser Ala Leu Lys Asp Tyr Gly
            20                  25                  30
Ile Lys Gly Tyr Met Gly Lys Asn Ile Tyr Ile Ala Thr Trp Leu Ala
        35                  40                  45
Val Ala Phe Ser Leu Ala Gly Ser Leu Phe Trp Ile Ile Ser Ser Cys
    50                  55                  60
Cys Cys Ser Gly Arg Ser Pro Tyr His Gly Ser Ser Lys Thr Arg Gly
65                  70                  75                  80
Val Thr Ala Glu Lys Ala Pro Tyr Thr Tyr Glu Pro Leu Gly Pro Gln
                85                  90                  95
Ala Asn Gln Thr Pro Ala Ala Phe Gly Asn Thr Ser Tyr Pro Pro Pro
            100                 105                 110
Ala His Gly Thr His Val Pro Met Gln Asn Met Arg Asn Asn Ala Tyr
        115                 120                 125
Glu Pro Phe Arg His Val
    130
```

<210> 32626
<211> 636
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (294)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32626

```
Ser Lys His Arg Gly Cys Lys Ala Gly Val Ala Thr Val Arg Thr Val
1               5                   10                  15
Ile Val Pro Arg Ala Ala Asn Ser Ser Ser Gln Ser Arg Ile Cys Asn
            20                  25                  30
Thr Tyr Arg Ser Asn Asp Glu Ala Lys Asp His Thr Phe Gln Glu Met
        35                  40                  45
Ser Asn Ser Thr Gln Ala His Gly Thr Ala Glu Ser Ser Glu Val Asn
    50                  55                  60
Ile Met Glu Thr Gln Leu Ser Gly Gly Glu Trp Ser Phe Pro Gly Thr
65                  70                  75                  80
Thr Ser Pro Asn Ser Ala Gln Leu Ser Asn Ser Cys Gly Pro Arg Asp
                85                  90                  95
Arg Glu Pro Ser Val Phe Ile Thr Ala Ser Pro Gly His Val Glu Asp
            100                 105                 110
Ser Ser Asn Pro Phe Ser Ser Tyr Arg Glu Ala His Ser Phe Met Gln
        115                 120                 125
Thr Asp Asp Gly Asn Ala Thr Ser Thr Gly Tyr Pro Ser Leu Thr Gln
    130                 135                 140
Val Thr Pro Thr Asp Tyr Arg Val Pro Gln Leu Lys Arg Arg Val Ser
145                 150                 155                 160
Glu Ile Asp Met Glu Gln Thr Ser Pro Ala Lys Arg Pro Lys Val Ala
                165                 170                 175
Cys Ser Glu Asp Gly Asp Ser Val Gln Glu Leu Ala Phe Ser Val Ile
            180                 185                 190
Ser Arg Arg Glu Thr Tyr Ile Asn Arg Ser Ala Glu His Ala Glu Ala
        195                 200                 205
Gln Lys Val Tyr Glu Lys Phe Arg Ser Asp Tyr Leu Asp Tyr Asp Gly
```

```
    210                 215                 220
Asp Phe Asn His Phe Ala Met Leu Cys Ser Lys Leu Gln Ala Leu Arg
225                 230                 235                 240
Ala Lys Gly Gln Phe Arg Arg Ser Phe Leu Trp Asp Asp Phe Val Ile
                245                 250                 255
Met His Leu Lys Glu Tyr Lys Arg Tyr Ile Asn Glu Ile Ala Ala Ala
            260                 265                 270
Asp Leu Lys Thr Met Glu Tyr Glu Asn Phe Phe Ala Ser Tyr Ile Leu
        275                 280                 285
Lys Pro Ser Tyr Lys Xaa Arg Ser Leu Thr Ala Lys Gly Ile Glu Ile
    290                 295                 300
Ser Ala Ala Gln His Glu Pro Ser Arg Ala Ala Gly Val Pro Val Ile
305                 310                 315                 320
Pro Gln Arg Glu Thr Asn Thr Ser Phe Thr Gly Ser Leu Val Asp Arg
                325                 330                 335
Leu Ser Asn Phe His Thr Arg Ser Leu Gly Pro Glu Ser Pro Ala Ser
            340                 345                 350
Gln Ser Ala Thr Thr Val Asp Gln Leu Ser Trp Ser Thr Ser Pro Ala
        355                 360                 365
Ser Leu Arg Asp Pro Ile Arg Asp Ser Phe Ala Asn Ser Arg Arg Met
    370                 375                 380
Ala Lys Glu Thr Leu Glu Met Glu Leu Ala Pro Thr Lys Val Thr Arg
385                 390                 395                 400
Ser His Asp Pro Val Pro Asn Ser Pro Ser Glu Ala Val Ala Tyr Arg
                405                 410                 415
Leu Glu Arg Pro Thr Ser Arg His Arg Asp Thr Ile Gln Lys Gly Asn
            420                 425                 430
Arg Met Val Asp Glu Glu Glu Ala His Asp Thr Glu Val Thr Pro Lys
        435                 440                 445
Val Thr Arg Ser Asp His Val His Asp Ile Ser Asn Gln Thr Asp Leu
    450                 455                 460
Ser Ser Ala Arg Glu Ser Leu Glu Pro Gln Val Thr Thr Gly Val Pro
465                 470                 475                 480
Ser Phe Ser Val Asn Arg Ala Asp Asp Asp Ala Arg Ser Ile Pro Glu
                485                 490                 495
Thr Ile Ala Ser Asn Asp Glu Gly Glu Gln Gly Ser Ala Asp Glu Thr
            500                 505                 510
Pro Lys Ile Ala Ser Val Glu Leu Gly Glu Asp Arg Cys Ser Thr Ala
        515                 520                 525
Pro Ala Ala Asp Glu Ser Asp Ala Glu Ser Asp Ala Val Ser Glu Ala
    530                 535                 540
Asp Ser Phe Asp Glu Asp Trp Val Gly Trp His Cys Arg Arg Leu Gln
545                 550                 555                 560
Ser Thr Gly Pro Phe Trp Ser Asp Asp Pro Asn Thr Pro Phe Lys Val
                565                 570                 575
Leu Ala Arg Ala Asp Ala Asn Val Arg Ser Glu Leu Leu Arg Arg Gly
            580                 585                 590
Met Ala Arg Phe Pro Val Asp Glu Arg Gly Val Ile Gln Pro Leu Val
        595                 600                 605
Asp Tyr Pro Pro Met Val Ser Leu Arg Asp Leu Leu Asp Arg His Pro
    610                 615                 620
Pro Ser Pro Ala Arg Pro Ser Asp Glu Pro Glu Gly
625                 630                 635
```

<210> 32627
<211> 84

<212> PRT
<213> A.fumigatus

<400> 32627
Tyr Ser Lys His Ala Ser Glu Tyr Tyr Asp Pro Cys Gln Asp Phe Ala
1 5 10 15
Asp Arg Ser Leu Lys Cys Met Lys Arg Asn Ala Phe Asp Lys Asp Met
20 25 30
Cys Gly Asp Tyr Phe Gln Tyr Val Cys Ser Ile Leu Ser Cys Gln Ser
35 40 45
Val Leu Val Phe Ser Phe Val Ser Leu Asn Glu Leu Ile Tyr Phe Leu
50 55 60
Lys Glu Pro Thr Val Thr Val Lys Arg Asn Gly Tyr Val Glu Leu Val
65 70 75 80
Lys Val Ile His

<210> 32628
<211> 117
<212> PRT
<213> A.fumigatus

<400> 32628
Lys His Pro Lys Thr Leu Ala Ile Val Ser Arg Ile Ala Gly Val Asp
1 5 10 15
Leu Val Pro Val Met Asp Tyr Glu Ile Gly His Ile Asn Ile Ser Val
20 25 30
Gln Ser Glu Glu Asp Lys Ala Glu Phe Leu Ala Ala Val Ala Glu Lys
35 40 45
Asn Ser Gln Glu Ala Gly Lys Asn Val Ser Asp Ser Ala Trp Glu Gly
50 55 60
Lys Asp Pro Ile Val Asp Trp His Thr Asp Gly Tyr His Tyr Val Cys
65 70 75 80
Val Val Ile Phe Ser Asp Cys Glu Asp Met Ile Glu Arg Glu Thr Glu
85 90 95
Leu Arg Arg Gly Asn Asp Glu Lys Ile Lys Val Arg Ser Pro Gln Met
100 105 110
Val Ser Arg Leu Ser
115

<210> 32629
<211> 474
<212> PRT
<213> A.fumigatus

<400> 32629
Arg Arg Gly Cys Ala Ser Leu Ser Leu Pro Ala Met Val Pro His Arg
1 5 10 15
Arg Ser Ser Ser Ser Asp His His His Pro Ser Leu His Asp Ser Tyr
20 25 30
Gln Pro Ser Ser Ser Ser Asp Glu Pro Trp Asp Leu Arg Pro Glu Asn
35 40 45
Gly Thr Lys Gly Gly Glu Met Arg Glu Leu Asp Gly Asn Gly Asn Ala
50 55 60
Asp Leu Pro Arg Pro Glu Thr Pro Thr Ser Glu Thr Thr Asp Arg Asp
65 70 75 80

```
Ile Thr Thr Asn Gly Asn Glu Ser Gln Thr Leu Arg Leu Gln Arg Pro
                85                  90                  95
Lys Ser Ile Arg Gln Glu Thr Asp Asp Ile Gly Glu Thr Met Asp Asp
            100                 105                 110
Thr Ala Thr Ala Asn Gly Ala Ser Asp Asn Gln Glu Ser His His Gly
        115                 120                 125
Tyr Ala Glu Leu Lys Ala Gly Gln Phe Pro Pro Gln Gln Ala Leu Gly
    130                 135                 140
Leu Val Phe Glu His Thr Asn Asn Gly Asp Asp Ala His Arg Thr Ser
145                 150                 155                 160
Leu Val Asp Val Leu Gln Gly Ala Glu Ala Gly Ala Ala Leu Asn Gly
                165                 170                 175
Trp Pro Glu Lys Met Ser Pro Ser Lys Gly Gln Asp Met Glu Arg Asp
            180                 185                 190
Arg Glu Lys Val Leu Lys Leu Ser Pro Ala Lys Ile Gln Glu Leu Thr
        195                 200                 205
Ser Ser Pro Gln Ser Ile Pro Tyr Arg Pro Val Ala Ser Glu Thr Glu
    210                 215                 220
Gln Gly Arg Arg Val Leu Ser Asp Gly Ile His Thr Thr Gly Ala Glu
225                 230                 235                 240
Ser Asp Glu Gly Glu Ser Arg Ala His Ala Gly His Leu Ala Arg Asp
                245                 250                 255
Tyr Gln Ser Gly Asp Gly Leu Gly Leu Gly Ile Ser Ala Ala Ser Lys
            260                 265                 270
Asn Ser Val Ser Asn Gly Arg Thr Arg Pro His Ala Ser Arg Thr Val
        275                 280                 285
Ser Thr Pro Thr Ser Ser Arg Arg Pro Thr Leu Pro Gly Thr Asn Glu
    290                 295                 300
Arg Leu Ala Gln Thr Trp Ala Ser Arg Ser Lys Pro Asp Arg Pro Gly
305                 310                 315                 320
Ile Gly Leu Gly Asn Ser Arg Leu Glu Gln Glu Ser Lys Arg Gln Leu
                325                 330                 335
Ser Pro Ser Pro Val Ile Thr Glu Pro Ala Leu Pro Ser Pro Met Pro
            340                 345                 350
Pro Ser Ile Pro Leu Pro Pro Leu Ser Val Pro Thr Tyr Leu Gln Leu
        355                 360                 365
Glu Leu Ser Ser Gly Arg Pro Ser Pro Leu Tyr Ile His Arg Ser Val
    370                 375                 380
Thr Asn Asp Phe Pro Tyr Glu Ser Ser Arg Val Lys Leu Glu Arg Leu
385                 390                 395                 400
Ser Ser Phe Leu Arg Leu Pro Pro Ala Leu Glu Gln Val Leu Trp Phe
                405                 410                 415
Gly Ile Leu Ala Cys Leu Asp Ala Trp Leu Tyr Ser Phe Thr Ile Leu
            420                 425                 430
Pro Leu Arg Phe Cys Lys Ala Leu Tyr Ile Leu Leu Glu Ser Trp Leu
        435                 440                 445
Val Asn Leu Gly Met Glu Phe Arg Phe Val Ser Asp Phe Val Ile Lys
    450                 455                 460
Gly Ile Gly Arg Val Trp Gln Arg Gln Lys
465                 470
```

<210> 32630
<211> 378
<212> PRT
<213> A.fumigatus

<400> 32630
Ser Ala Pro Val Ala Glu Ala Glu Arg Arg Pro Arg Gly Thr Ser Ala
1 5 10 15
Glu Arg Gly Pro Arg Thr Lys Ser Gly Glu Ser Arg Arg Arg His Arg
20 25 30
Ala Asp Thr His Lys Tyr Gln His Arg Arg Gln Lys Ser Ile Pro Ser
35 40 45
Ala Leu Leu Pro Asp Asp Lys Ala Asp Ile Leu Lys Gly Leu Leu Met
50 55 60
Ile Ala Thr Cys Cys Val Leu Met Tyr Phe Asp Ala Ser Arg Met Tyr
65 70 75 80
His Trp Ile Arg Gly Gln Ala Ala Ile Lys Leu Tyr Val Ile Tyr Asn
85 90 95
Val Leu Glu Val Ser Asp Arg Leu Leu Ala Ala Ile Gly Gln Asp Val
100 105 110
Leu Glu Cys Leu Phe Ser Arg Glu Ala Leu Glu Arg Arg Pro Asp Gly
115 120 125
Arg Ser Lys Val Phe Arg Pro Phe Gly Leu Phe Leu Leu Ala Leu Thr
130 135 140
Tyr Thr Val Leu His Ala Thr Ser Leu Phe Tyr Gln Val Met Thr Leu
145 150 155 160
Asn Val Ala Val Asn Ser Tyr Ser Asn Ala Leu Ile Thr Leu Leu Leu
165 170 175
Ser Asn Gln Phe Val Glu Ile Lys Ser Thr Val Phe Lys Lys Phe Glu
180 185 190
Lys Glu Asn Leu Phe Gln Leu Thr Cys Ala Asp Val Val Glu Arg Phe
195 200 205
Gln Leu Trp Leu Met Leu Thr Ile Ile Ala Ser Arg Asn Ile Val Glu
210 215 220
Thr Gly Ala Phe Asn Phe Val Gly Thr Leu Ser Ser Ser Leu Ser Ser
225 230 235 240
Arg Ser Thr Ser Thr Asn Ser Thr Pro Leu Ser Thr Pro Pro Arg Ser
245 250 255
Ser Ser Ser Ile Leu Pro Gln Ser Phe Thr Phe Phe Pro Ser Ser Leu
260 265 270
Ile Ser Ser Phe Ser His Val Asn Ser Phe Leu Pro Thr Leu Ala Gln
275 280 285
Val Leu Gly Pro Phe Leu Val Val Leu Gly Ser Gly Arg Ile Ala Phe
290 295 300
Gly Gly Gly Thr Leu Gly Ala Phe Ser Lys Arg Ala Pro Phe Trp Ala
305 310 315 320
Gln Phe Asn Pro His Phe Ser Lys Lys Pro Lys Lys Gly Phe Phe Ser
325 330 335
Lys Lys Pro Gln Lys Thr Pro Thr Pro Gly Pro Gly Gly Pro Pro Arg
340 345 350
Gly Gly Pro Pro Ile Phe Pro Leu Asn Pro Gly Gly Ala Pro Arg Gly
355 360 365
Leu Phe Phe Phe Phe Leu Gly Gly Glu Phe
370 375

<210> 32631
<211> 63
<212> PRT
<213> A.fumigatus

<400> 32631

```
Glu Arg Leu Ile Cys Ser Gly Arg Tyr Glu Leu Ile Asp Met Gln Gln
1               5                  10                  15
Gly Arg Ile Asn Lys Gly Asp Asn Thr Asn Glu Arg Tyr Ala Leu Ala
            20                  25                  30
Leu Leu Asn Arg Thr Gln Ala Glu Asn Ser Thr Leu Ser Thr Phe Ala
        35                  40                  45
Glu Asn Gly Ile Leu Glu His Arg Val Leu Gln Phe Val Ser Val
    50                  55                  60
```

<210> 32632
<211> 241
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (75),(77)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32632

```
Trp Glu Gly Pro Phe Leu Pro Glu Ile Ser Ala Arg Val Leu Leu Arg
1               5                  10                  15
Ala Val Pro Pro Asp Trp Gln Ser Asn Met Gln Asn Ser Pro Ser Gly
            20                  25                  30
Glu Thr Asp Gln Cys Arg Thr Pro Glu Ile Thr Asn Ala Asp Ile Pro
        35                  40                  45
Arg Val Ser Gln Ala Val Ala Ile Gly Ala Ala His Gly Glu Leu Ala
    50                  55                  60
Glu Arg Gln Ser Phe Ile Phe Asn Ala Gly Xaa Ile Xaa Gln Gln Ser
65                  70                  75                  80
Pro Ala Trp Phe Gln His Gly Gln Pro Arg His Pro Arg Leu Ile Pro
                85                  90                  95
Cys Glu Phe Gln Thr Leu Gln Asn Lys Arg Pro Arg Arg Asn Arg Lys
            100                 105                 110
Arg Thr Ser Ser Glu Met Gly Gly Asp Ser Asp Ser Asp Ser Ala Asp
        115                 120                 125
Gly Gly Ala Lys Arg Thr Pro Ile Arg Val Gly Gln Thr Asp Val Leu
    130                 135                 140
Arg Gln Phe Tyr Gln Lys Ala Phe Glu Asn Leu Gln Gln Leu Asn Cys
145                 150                 155                 160
Arg Val Ile Ala Lys Ala Phe Val Lys Leu Val Glu Pro Arg Lys Gln
                165                 170                 175
Val Asn His Pro Tyr Asn Gly Arg Arg Thr Val Met Gly Gly Pro Cys
            180                 185                 190
Gln Lys Leu Asp Pro Glu Leu Thr Lys Pro Lys Trp Trp Pro Thr Gly
        195                 200                 205
Val Gln His Lys Glu Pro Asp His Leu Leu Lys His Gly Met Ser Ile
    210                 215                 220
Ala Phe Phe Pro Arg Leu Leu Phe Cys Lys Phe Gly Ser Ala Arg Ser
225                 230                 235                 240
Arg
```

<210> 32633
<211> 137
<212> PRT

<213> A.fumigatus

<400> 32633
Ala Glu Arg Ser Val Cys Leu Asp Ser Asn Lys Ser Phe Gly Gly Ile
1 5 10 15
Arg Leu Ile Val Asn Asp Pro Thr Gly Gly Asp Thr Val Ile Tyr Val
20 25 30
Ser Ser Ile His Leu Pro Glu Gly Ile Glu Pro Ala Val Val Asn Ile
35 40 45
Asn Glu Lys Gln Ile Thr Glu Ala Asp Tyr Leu Pro Leu Ser Pro Val
50 55 60
Ser Ile Ser Arg Lys Ser Ser Val Glu Ser Gly Leu Ser Ser Leu Ser
65 70 75 80
Lys Gly Met Ile Ser Ser Ile Ser Ser Ser Glu Gln Thr Gln Ala Leu
85 90 95
His Ala His Ala Glu Val Pro Ser Thr Gly Ser Asn Ser Leu Pro Gly
100 105 110
Phe Tyr Ala Pro His Ser Met Ile Trp Ser His Gly Thr Ser Gly Ile
115 120 125
Asn Val Pro Phe Asn Met Ser Ser Asn
130 135

<210> 32634
<211> 157
<212> PRT
<213> A.fumigatus

<400> 32634
Ala Arg Tyr Lys Glu Pro Cys Ile Gln Ile Phe Ser Leu Ser Gln Ser
1 5 10 15
Asp Arg Gln Arg Arg Gln Asp Glu Met Ala Glu Pro Asp His Lys Leu
20 25 30
Ser Leu Gln Lys Pro Ser Glu Asp Ala Pro Glu Asp Ile Gly Gln Gly
35 40 45
Ile Asp Ile Asp Ile Asn Ile Asp Ile Asp Leu Ala Asn Val Val Leu
50 55 60
Asp Pro Gln Lys Glu Arg Lys Leu Leu Leu Lys Leu Asp Leu Ala Phe
65 70 75 80
Val Pro Ile Ile Met Val Thr Tyr Leu Ser Cys Phe Leu Asp Arg Thr
85 90 95
Asn Ile Gly Met Tyr Pro Arg Ala Ser Pro Val Lys Pro Ala Ile Leu
100 105 110
Thr Leu Ala Arg Lys Cys Gln Ser Gly Arg His Ala Arg Ser His Arg
115 120 125
Gly Val Ala Gln Arg Ile Leu His Arg Arg Leu His Leu Leu Arg Asp
130 135 140
Leu Arg Ala Pro Arg Ser Pro Leu Gly Arg Ala His Glu
145 150 155

<210> 32635
<211> 222
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE

<222> (58),(69)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32635
Gln Arg Val Pro Pro Gly Val Ala Pro Ile Arg Leu Gly His Leu Leu
1 5 10 15
Tyr Leu Phe His Ile Gly Gln Gln Ile Arg Pro His Arg Asn His His
20 25 30
Ala Gly Val Gly Glu His Ala Arg Arg His Glu Arg Asn Cys Arg Pro
35 40 45
Val His Gly Asp Gln Ala Ala Gly Gln Xaa Val Phe Gly Arg Gln Ala
50 55 60
Ser Leu Thr Gln Xaa Ile Phe Glu Thr Glu Arg Ala Ala Glu Gln Glu
65 70 75 80
Ala Tyr Val Val Gly Gly Val His Leu Leu Glu Ile Leu Ser Gly Cys
85 90 95
Asp Val Ala Ala Gly Leu Val Asp Ala Val Leu Arg Glu Val Gly Ala
100 105 110
Glu Val Glu Ile Arg Val Gly Asp Ala Gly Cys Trp Gly His Gly Val
115 120 125
Arg Val Ala Leu Gly Asp Asp Ala Glu Gln Arg Ala Gly Asp Gly Val
130 135 140
Ala Gln Ala Glu Gly Val Glu Val Trp Gly Val Ala Gly Gly Glu Asp
145 150 155 160
Gln Glu Val Gly Leu Glu Glu Ala Arg Gly Glu Ala Arg Gly Val Cys
165 170 175
Asp Glu Val Leu Ala Gly Glu Glu Ala Gly Gly Val Arg Ile Ala Leu
180 185 190
Val Val Ala Gly Val Ala Gly Val Ala Gly Val Ala Ala Gly His Met
195 200 205
Ala Thr Ala Ala Ala Ala Gly His Ala Val Tyr Leu Ala Ser
210 215 220

<210> 32636
<211> 321
<212> PRT
<213> A.fumigatus

<400> 32636
His Trp Leu Gly Asn Val Lys Val Ala Gly Met Pro Glu Ala Ile Gly
1 5 10 15
Ala Ser Pro Ser Glu Phe Ser Thr Ala Val Ser Ile Phe Tyr Val Thr
20 25 30
Tyr Val Leu Leu Glu Ala Pro Trp Ala Val Leu Met Asn Lys Leu Thr
35 40 45
Pro Arg Asn Ile Leu Thr Gly Leu Cys Ile Val Trp Ser Val Thr Thr
50 55 60
Val Phe Thr Gly Phe Val Thr Asn Val Pro Ala Leu Tyr Ala Thr Arg
65 70 75 80
Leu Ile Leu Gly Ala Cys Glu Ala Gly Leu Phe Pro Cys Leu Asn Leu
85 90 95
Tyr Leu Thr Met Val Tyr Arg Arg Glu Glu Gln Ala Lys Arg Val Ser
100 105 110
Tyr Leu Met Ser Cys Ala Ala Ile Ser Gly Ala Phe Gly Gly Leu Leu
115 120 125
Ala Tyr Gly Leu Leu His Met Asp Gly Ile Gly Gly Lys Ala Gly Trp

```
    130                 135                 140
Arg Tyr Leu Thr Ser Phe Thr Thr Leu Gly Val Val Trp Ser Thr Ala
145                 150                 155                 160
Asn Val Arg Ile Arg Trp Val Tyr Ile Ile Glu Gly Leu Phe Ser Leu
                165                 170                 175
Ile Cys Ala Val Leu Ile Trp Phe Gly Leu Pro Asn Asp Pro Ser Asn
            180                 185                 190
Ala Tyr Phe Leu Thr Ala Asp Glu Lys His Met Met Arg Val Arg Asn
        195                 200                 205
Ala Gln Arg Ala Ala Tyr Met Gly Ser Ser Gln Phe Ser Trp Ala Glu
    210                 215                 220
Met Arg Ile Ala Ile Thr Asp Pro Lys Leu Ala Phe Ser Ala Ile Thr
225                 230                 235                 240
Gln Phe Cys Gln Asp Ile Leu Leu Tyr Gly Phe Ser Thr Phe Leu Pro
                245                 250                 255
Thr Ile Leu Lys Gly Ile Gly Tyr Asp Ser Leu Met Ser Asn Ile Leu
            260                 265                 270
Thr Val Pro Val Tyr Phe Trp Ala Ala Ile Val Phe Val Ser Val Pro
        275                 280                 285
Gly Pro Arg Ile Ala Ile Ile Ala Phe Ala Leu Phe Leu Ala Gly Ser
    290                 295                 300
Gln Met Phe Ser Gly Leu Val Gly Val His Ser Ala Pro Gly Arg Leu
305                 310                 315                 320
Glu
```

Application No. 09/887,124 Page 2,858

<210> 32637
<211> 149
<212> PRT
<213> A.fumigatus

<400> 32637

```
Ser Leu Leu Arg Cys Phe Leu Leu Val Pro Lys Cys Phe Arg Gly Trp
1               5                   10                  15
Trp Gly Tyr Ile Leu Leu Leu Ala Val Ser Asn Asp Ala Val Lys Tyr
            20                  25                  30
Phe Ala Thr Tyr Leu Ile Gly Ile Ala Thr Tyr Thr Gly Val Gly Leu
        35                  40                  45
Asn Ile Ala Trp Leu Asn Val Asn Val Ala Pro His Tyr Arg Arg Ala
    50                  55                  60
Leu Glu Ile Gly Val Gln Gln Thr Ile Gly Asn Leu Ala Gly Ile Val
65                  70                  75                  80
Ser Gly Gln Ile Tyr Arg Thr Ser Pro Tyr Val Leu Gly Asn Ser Phe
                85                  90                  95
Ser Leu Gly Ala Leu Val Val Ala Gln Gly Val Val Leu Gly His Ala
            100                 105                 110
Val Tyr Leu Arg Arg Glu Asn His Leu Lys Val Lys Ile Gly Ala Gly
        115                 120                 125
Glu Lys Glu Asp Thr Arg Arg Val Arg Thr Gly Asp Lys Ala Leu Asp
    130                 135                 140
Phe Val Tyr His Tyr
145
```

<210> 32638
<211> 305
<212> PRT

<213> A.fumigatus

<400> 32638
Ala Asn Thr Leu Thr Lys Arg Ala Asp Trp Pro Ser Ser Arg Gly Thr
1 5 10 15
Phe Pro Thr Ile Ser Ile Lys Thr Pro Asn Pro Thr Pro Pro Thr Thr
20 25 30
Ser Arg Arg Glu Asn Ser Thr Thr Asp Ser Arg Asn Gly Lys Arg Ser
35 40 45
Ser Pro Ala Phe Ser Thr Gln Pro Ala Asn Pro Trp Pro Ile Ser Ser
50 55 60
His Ser Gly Lys Ser Ala Phe Pro Leu Gln Pro Phe Arg Arg Gln Pro
65 70 75 80
Thr Asp Arg Ser Glu Asp Arg Met Arg Tyr His Ala Ile Met Ile Ser
85 90 95
Leu Ala Arg Asp Gly Phe Gly Val His Thr Phe Phe Ser Ala Glu Asp
100 105 110
Gly Lys Ser Gln Thr Thr Val Pro Pro Ser Ser Gln Leu Pro Ala His
115 120 125
Leu Arg Glu Lys Ala Thr Glu Gln Ser Leu Ala Ser Ala Arg Ala Ile
130 135 140
Ala Ala Leu Val Arg Val His Arg Glu Glu Tyr Gly Ile Gly Arg Thr
145 150 155 160
His Pro Phe Thr Thr Tyr Ala Ile Met Val Ala Leu Phe Thr Ile Leu
165 170 175
Asp His Ala Ala Phe Asp Ile Leu Asp Thr Asp Phe Leu Ser Leu Thr
180 185 190
Ser Ala Phe Ser Val Ile Ala Cys Arg Ser Gln Val Gly Arg Asn Leu
195 200 205
Phe His Ile Phe Arg Gln Ser Val Arg Ala Gln Asp Gln Glu Gly Arg
210 215 220
Val Leu Gln Ser Asp Gln Val Pro Glu Glu Ile Lys Glu Leu Phe Gly
225 230 235 240
Arg Tyr Pro Arg Ser Ser Lys Pro Asp Lys Trp Asp Asp Tyr Glu Asp
245 250 255
Gly Leu Asp Lys Leu Gly Thr Ala Glu Gly Arg Asp Val Ala Ala Ala
260 265 270
Asp Gly Met Arg Met Arg Asn His Ala Ala Ser Gly Val Arg Asp Met
275 280 285
Leu Ser Lys Tyr Glu Ser Leu Ser Leu Gly Gln Gln Ser Gln Asp Arg
290 295 300
Lys
305

<210> 32639
<211> 142
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (141)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32639
Pro Tyr Asp Gln Gln Gln His Gln Gln His Gln Gln His Gln Gln Gln

```
1               5                   10                  15
Pro Lys Gln Cys Val His His Pro Pro Pro Arg Pro Pro Lys Pro His
            20                  25                  30
His Lys His Leu Gly Pro Leu Pro Gly Leu Pro Pro Ser Gln Pro Pro
        35                  40                  45
Asp Pro Pro Leu Pro Leu Arg Pro Arg Leu Pro Arg Pro Leu Pro Ala
    50                  55                  60
Gln Pro Arg Pro Leu Pro Ser Ala Arg His His Pro Pro Gly Gln Pro
65                  70                  75                  80
Ser His Arg Val Pro Ser Ser Leu His His Gln Pro Gly Phe Arg Pro
                85                  90                  95
Pro His Arg Leu Pro Ala Val Pro Arg Leu Pro Val Arg Pro Pro His
            100                 105                 110
Arg Ile Gln Lys Gly Ser Gln Gly Gly Val His Pro Arg Pro Arg Arg
        115                 120                 125
Leu Pro Ala Arg Leu Leu Val Gln Phe Arg Arg Cys Xaa Val
    130                 135                 140
```

<210> 32640
<211> 219
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (151),(162)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32640

```
Ile Asp Ser Met Ala Ser Ser Ser Ser Ser Ser His Met Thr Ser Ser
1               5                   10                  15
Asn Thr Ser Asn Thr Ser Asn Thr Ser Asn Asn Gln Ser Asn Ala Tyr
            20                  25                  30
Thr Thr Arg Leu Leu Ala Arg Gln Asn Leu Ile Thr Asn Thr Ser Gly
        35                  40                  45
Leu Ser Pro Gly Phe Leu Gln Ala Asn Leu Leu Ile Leu Pro Ser Arg
    50                  55                  60
Tyr Ala Pro Asp Phe His Ala Leu Cys Leu Arg Asn Pro Val Pro Cys
65                  70                  75                  80
Pro Leu Leu Gly Ile Ile Pro Gln Gly Asn Pro His Thr Val Ser Pro
                85                  90                  95
Ala Ala Cys Ile Thr Asn Pro Asp Phe Asp Leu Arg Thr Asp Phe Pro
            100                 105                 110
Gln Tyr Arg Val Tyr Gln Ser Gly Arg His Ile Ala Ser Arg Lys Asp
        115                 120                 125
Leu Lys Glu Val Tyr Thr Pro Asp His Val Gly Phe Leu Leu Gly Cys
    130                 135                 140
Ser Phe Ser Phe Glu Asp Xaa Leu Cys Glu Ala Gly Leu Pro Pro Lys
145                 150                 155                 160
His Xaa Leu Thr Gly Arg Leu Val Ala Met Tyr Arg Thr Thr Val Pro
                165                 170                 175
Leu Met Pro Ala Gly Val Phe Thr Asp Ala Cys Met Val Val Ser Met
            180                 185                 190
Arg Pro Tyr Leu Leu Ala Asp Val Glu Gln Val Gln Gln Val Thr Lys
        195                 200                 205
Pro Tyr Gly Gly Asp Pro Trp Gly Asn Pro Leu
```

210 215

<210> 32641
<211> 78
<212> PRT
<213> A.fumigatus

<400> 32641
Ser Arg Ser Thr Ala Arg Ser Ala Leu Thr Leu Pro Thr Pro Leu Val
1 5 10 15
Ser Trp Thr Ser Ser Val Ser Arg Arg Pro Ala Arg Thr Ser Val Ser
20 25 30
Ser Thr Thr Pro Arg Val Ala Ser Pro Ser Thr Val Ser Arg Leu Arg
35 40 45
Arg Pro Ser Thr Ser Ser Ala Arg Ser Arg Glu Phe Ser Leu Ala Arg
50 55 60
Ala Gly Ser His Ser Trp Leu Arg Thr Met Arg Glu Arg Glu
65 70 75

<210> 32642
<211> 155
<212> PRT
<213> A.fumigatus

<400> 32642
Ile Glu Glu Pro Glu Thr Asp His Glu Leu Asp Phe Tyr Ser Lys Lys
1 5 10 15
His Gln Lys Arg Leu Ser Ala Pro Ser His Trp Leu Leu Asp Lys Met
20 25 30
Ser Gly Thr Tyr Ala Pro Lys Ala Ser Pro Gly Pro His Lys Leu Arg
35 40 45
Asp Cys Leu Pro Leu Ile Val Phe Ile Arg Asn Arg Leu Lys Tyr Ala
50 55 60
Leu Asn Gly Arg Glu Thr Lys Ala Ile Met Met Gln Arg Leu Ile Lys
65 70 75 80
Val Asp Gly Lys Val Arg Thr Asp Pro Thr Tyr Pro Ala Gly Phe Met
85 90 95
Asp Val Ile Ser Ile Glu Lys Thr Gly Glu Asn Phe Arg Leu Ile Tyr
100 105 110
Asp Thr Lys Gly Arg Phe Thr Val His Arg Ile Gln Ala Glu Glu Ala
115 120 125
Glu Tyr Lys Leu Cys Lys Val Lys Arg Val Gln Leu Gly Lys Gly Gly
130 135 140
Ile Pro Phe Leu Val Thr His Asp Ala Arg Thr
145 150 155

<210> 32643
<211> 121
<212> PRT
<213> A.fumigatus

<400> 32643
Thr Phe Gly Ala Val Cys Ala Asp Arg Asn Val Ser Ser Ile Arg Tyr
1 5 10 15
Pro Asp Pro Ala Ile Lys Val Asn Asp Thr Val Lys Val Asp Ile Ala
20 25 30

```
Thr Gly Lys Ile Thr Asp Phe Val Arg Phe Asp Thr Gly Val Val Cys
        35                  40                  45
Met Val Thr Gly Gly Arg Asn Met Gly Arg Val Gly Ile Ile Thr His
    50                  55                  60
Arg Glu Arg His Asp Gly Gly Phe Asn Ile Val His Ile Lys Asp Ala
65                  70                  75                  80
Ile Asp Asn Ser Phe Ala Thr Arg Glu Ser Asn Val Phe Val Ile Gly
                85                  90                  95
Gln Glu Lys Pro Trp Ile Ser Leu Pro Lys Gly Lys Gly Val Lys Val
            100                 105                 110
Arg Asn His Thr Pro Lys Ile Ile Ile
        115                 120
```

<210> 32644
<211> 155
<212> PRT
<213> A.fumigatus

```
<400> 32644
Pro Phe Arg Ile Ser Phe Ile Pro Leu Asp Arg Leu Ile Ser His Ser
1               5                   10                  15
His Thr Ser Arg Arg Ser Met Met Thr Pro Met Asp Val Met Glu Ala
            20                  25                  30
Glu Asn Ser Arg Asp Glu Glu His Asp Ile His Glu Asp Val Ile Asp
        35                  40                  45
Val Glu Glu Asp Glu Glu Glu Asn Leu Ser Glu Leu Asp Pro Ser Gln
    50                  55                  60
Lys Glu Tyr Leu Glu Tyr Gln Arg Arg Leu Asp Asp Phe Leu Ser Pro
65                  70                  75                  80
Leu Val Leu Asp Glu Ala Val Leu Tyr Arg Leu Ala Arg Arg Phe Ser
                85                  90                  95
Ser Thr Tyr Arg His Leu Ala Leu His Ser Asp Gln Gln Phe Leu Pro
            100                 105                 110
Thr Pro Val Thr Arg Leu Pro Thr Gly Leu Glu Thr Gly Arg Tyr Leu
        115                 120                 125
Ala Ile Asp Val Gly Gly Ser Asn Leu Arg Val Ala Phe Ile Val Phe
    130                 135                 140
Thr Thr Gly Met Pro Gly Ser Ala Val Lys Val
145                 150                 155
```

<210> 32645
<211> 620
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (608)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 32645
Met Ala Leu Asp Glu Glu Leu Leu His Leu His Leu Gly Asp Gly Gln
1               5                   10                  15
Gln Arg Pro Tyr Lys Leu Ser Thr Val Ala Thr Pro Pro Asp Glu Glu
            20                  25                  30
Gln Leu Asn Leu Gln Arg Ser Asp Lys Asp Thr Ala Glu Pro Ser Gln
```

```
        35                  40                  45
Thr Pro Arg Cys Asp Thr Pro Arg Glu Ala His Thr Glu Ile Val Gln
    50                  55                  60
Asn Asp Thr Ser Ser Leu Asn Arg Ile Phe Arg Phe Thr Pro Val Pro
65                  70                  75                  80
Thr Leu Ile Leu Asp Ser Ser Leu Arg Val Ile Glu Val Ser Glu Ser
                85                  90                  95
His Leu Ala Phe Cys Gly Lys Ser Arg Asp Phe Val Leu Gly Ala Ser
            100                 105                 110
Ile Tyr Glu Leu Pro Leu Ala Thr Ile Pro Ala Pro Asp Ile Ala Thr
        115                 120                 125
Leu Asn Gly Ala Leu His Val Ala Ile Thr Thr Arg Ala Val Gln Val
    130                 135                 140
Val Glu Thr Ile His Leu Pro Arg Ile Ser Ser Tyr Phe Ser Leu Lys
145                 150                 155                 160
Ile Thr Pro Ile Phe Gln Gly Ser Thr Leu Leu Asn Leu Val Leu Glu
                165                 170                 175
Ala His Asn Val Thr Arg Thr His Thr Glu Ser Leu His Asn Ala Tyr
            180                 185                 190
Ile Asn Glu Thr Tyr Lys Ile Leu Val Asp Thr Ile Arg Asp Tyr Ala
        195                 200                 205
Ile Phe Met Leu Asp Ala Arg Gly Asn Ile Val Thr Trp Asn Ser Gly
    210                 215                 220
Ala Ala Ile Ile Lys Gly Tyr Lys Ala Asp Glu Ile Ile Gly Arg His
225                 230                 235                 240
Phe Ser Val Phe Tyr Gly Pro Glu Asp Arg Leu Ala Asp Lys Pro Gly
                245                 250                 255
Lys Glu Leu Glu Leu Cys Leu Arg Asp Gly Lys Val Glu Asp Glu Gly
            260                 265                 270
Trp Arg Tyr Arg Gln Asp Gly Leu Arg Phe Trp Ala Asn Val Met Ile
        275                 280                 285
Thr Pro Ile Phe Ser Phe Gly Arg His Val Gly Phe Val Lys Ile Thr
    290                 295                 300
Arg Asp Leu Thr Glu Arg Lys Ala Ala Glu Ala Arg Met Val Ala Ala
305                 310                 315                 320
Phe Glu Glu Ser Ser Lys Met Lys Asn Asp Phe Leu Ala Asn Met Ser
                325                 330                 335
His Glu Ile Arg Thr Pro Met Asn Gly Met His Leu Ala Leu Thr Met
            340                 345                 350
Leu Gly Ser Thr Glu Leu Asp Thr Gln Gln Arg Glu Tyr Thr Ser Ile
        355                 360                 365
Ile Glu Asp Ser Met Ser Ile Leu Leu Gln Val Ile Asn Asp Val Leu
    370                 375                 380
Asp Tyr Ser Lys Leu Ser Ser Gly Thr Phe Ser Leu Asn Thr Asp Val
385                 390                 395                 400
Leu Asn Val Glu Asn Ile Val Gly Ala Val Val Arg Asn Cys Lys Ala
                405                 410                 415
Leu Asn Pro Ala Val Glu Ile Ser Cys Ser Met Pro Pro Gly Phe Pro
            420                 425                 430
Asn Leu Leu Arg Gly Asp Pro Leu Arg Tyr Arg Gln Val Ile Gln Asn
        435                 440                 445
Leu Val Gly Asn Ala Met Lys Phe Thr Glu Lys Gly His Val Lys Val
    450                 455                 460
Thr His Arg Phe Ala Val Glu Glu His Asp Ala Asn Arg Tyr Ile Ile
465                 470                 475                 480
Thr Thr Glu Val Thr Asp Thr Gly Ile Gly Val Pro Glu Asp Ala Ile
```

```
                485                 490                 495
Asn Thr Leu Phe Thr Pro Phe Thr Arg Phe Ala Asp Ser Ala Thr Lys
            500                 505                 510
Arg Tyr Gln Gly Thr Gly Leu Gly Leu Ser Ile Cys Lys Ser Leu Ala
        515                 520                 525
Glu Leu Met Asp Gly Ser Val Gly Tyr Lys Pro Asn Pro Glu Gly Lys
    530                 535                 540
Gly Ser Cys Phe Trp Leu Asn Val Arg Met Gln Ala Val Asp Ile Pro
545                 550                 555                 560
Ala Pro Ser Lys Asp Thr Pro Ala Ala Thr Ala Glu Asn Thr Tyr Glu
                565                 570                 575
Pro Ile Glu Glu Val Lys Glu Ile Ala Pro His Met His Ile Leu Leu
            580                 585                 590
Val Glu Asp Asn Met Val Asn Gln Ile Val Met Leu Lys Leu Leu Xaa
        595                 600                 605
Ser Leu Gly Phe Glu Arg Val Asp Thr Ala Trp Asp
    610                 615                 620
```

<210> 32646
<211> 301
<212> PRT
<213> A.fumigatus

<400> 32646

```
Ile Gly Phe Val Thr Asn Arg Arg Met Leu Leu Ser Ser Ser Asp Ala
1               5                   10                  15
Phe Gly Arg Leu Met Phe Ser Tyr Lys Glu Ile Ser Glu Leu Ala Gly
            20                  25                  30
His Thr Ala Arg Val Ser Ser Leu Leu Glu Val Met Glu Asp Leu Gln
        35                  40                  45
Ala Gly Leu Phe Glu Lys Lys Leu Val Ser Ser Ala Ser Thr Glu Glu
    50                  55                  60
Asn Ala Ala Val Leu Ser Gly Arg Gly Glu Val Glu Glu Ala Asp Ser
65                  70                  75                  80
Ile Glu Phe Thr Asp Val Pro Ile Val Ser Pro Asn Gly Asp Val Leu
                85                  90                  95
Val Arg Lys Leu Ser Phe Thr Val His Pro Gly Asp His Leu Leu Ile
            100                 105                 110
Val Gly Pro Asn Gly Cys Gly Lys Ser Ser Leu Phe Arg Ile Leu Gly
        115                 120                 125
Gly Leu Trp Pro Val Tyr Gly Gly Lys Val Lys Lys Pro Arg Phe Asp
    130                 135                 140
Glu Ile Phe Tyr Ile Pro Gln Arg Pro Tyr Leu Ser Arg Gly Thr Leu
145                 150                 155                 160
Arg Gln Gln Val Ile Tyr Pro Asp Gly Val Arg Glu Met Arg Ala Lys
                165                 170                 175
Gly Val Thr Asp Ala Asp Leu Tyr Glu Ile Leu Ser Ile Val Glu Ile
            180                 185                 190
Ala Ser Val Val Asp Arg Pro Gly Gly Trp Asp Ala Glu Glu Glu Trp
        195                 200                 205
Arg Asp Val Leu Ser Gly Gly Leu Gln Gln Arg Ile Ala Met Ala Arg
    210                 215                 220
Leu Phe Tyr His Arg Pro Lys Phe Ala Ile Leu Asp Glu Cys Thr Ser
225                 230                 235                 240
Ser Val Thr Leu Glu Ile Glu Arg Val Met Tyr Glu Asn Ala Lys Lys
                245                 250                 255
```

```
Leu Gly Thr Thr Leu Met Thr Val Ser His Arg Arg Ser Leu Trp Lys
            260                 265                 270
Tyr His Gln Lys Ile Leu Gln Phe Asp Gly Gln Gly Gly Tyr Phe Phe
        275                 280                 285
Thr Gly Leu Asp Trp Glu Arg Arg Leu Gln Leu Glu Glu
    290                 295                 300
```

<210> 32647
<211> 138
<212> PRT
<213> A.fumigatus

<400> 32647

```
Val Arg Asp Leu Pro Pro Arg Gly Glu Asp Phe Val Ile Lys Tyr Phe
1               5                   10                  15
Trp Gly Ala Leu Gly Leu Ile Leu Cys Ser Met Pro Val Phe Phe Arg
            20                  25                  30
Ile Pro Gly Gln Ile Thr Gln Thr Met Ala Asp Arg Thr Glu Ser Glu
        35                  40                  45
Phe Trp Pro Thr Asn Ile Leu Pro Pro Ser Lys Leu Thr Gly Ile Asn
    50                  55                  60
Arg Leu Cys His Lys Pro Gln Asn Ala Thr Val Leu Ile Gly Arg Leu
65                  70                  75                  80
Trp Pro Ser His Val Leu Leu Gln Arg Asp Leu Arg Thr Cys Arg Ser
                85                  90                  95
His Ser Thr Ser Leu Ile Ser Ser Arg Gly His Gly Gly Pro Ala Ser
            100                 105                 110
Arg Thr Phe Arg Glu Glu Ala Arg Leu Leu Gly Ile His Arg Gly Lys
        115                 120                 125
Arg Arg Arg Ser Val Arg Pro Arg Arg Gly
    130                 135
```

<210> 32648
<211> 62
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (37)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32648

```
Trp Pro Gly Arg Leu Phe Leu Tyr Arg Ala Gly Leu Gly Ala Gln Thr
1               5                   10                  15
Ala Val Gly Arg Val Ser Leu Cys Asp Asn Leu Phe Leu Ser Tyr Val
            20                  25                  30
Met Leu Thr Arg Xaa Val Val Thr Ala Arg Lys Lys Asn Trp Thr Phe
        35                  40                  45
Ile Phe Val Gln Phe Arg Ser Tyr Ser Val Val Trp Arg Ser
    50                  55                  60
```

<210> 32649
<211> 170
<212> PRT
<213> A.fumigatus

<400> 32649
Leu Ile Arg Ser Ala Tyr Leu Gly Glu Glu Thr Ser Asp Gly Ala Asn
1 5 10 15
Val Ser Leu Thr Arg Ser Thr Leu Phe Asp Met Leu Leu Thr Gly Ala
20 25 30
Leu Gln Ile Glu Ile Thr Arg Glu Ile Gly Glu Gln Asn Ile Phe Leu
35 40 45
Phe Gly Thr Leu Ala Glu Asp Val Glu Glu Leu Arg His Arg His Phe
50 55 60
Tyr Gly Asp Phe Gln Leu Asp Pro Gln Leu Ser Lys Val Phe Glu Ala
65 70 75 80
Ile Arg Ser Asp Met Phe Gly Asp Ala Ser Asn Phe Ser Ala Leu Met
85 90 95
Ser Ala Ile Ala Glu His Gly Asp Tyr Tyr Leu Val Ser Asp Asp Phe
100 105 110
Asn Ser Tyr Ile Thr Thr Gln Glu Ile Val Asp Glu Ala Phe Lys Asn
115 120 125
Gln Asp Glu Trp Ile Ala Lys Ser Ile Thr Ser Val Ala Arg Met Gly
130 135 140
Phe Phe Ser Thr Asp Arg Val Ile Ser Glu Tyr Ala Asp Ser Ile Trp
145 150 155 160
Asn Ile Glu Pro Leu Glu Ile Arg Asp Asp
165 170

<210> 32650
<211> 226
<212> PRT
<213> A.fumigatus

<400> 32650
Phe Ala Asp Gly Asn Ser Leu His Ser Val Phe Ala Lys Met Ser Val
1 5 10 15
Ser Pro Thr Ala Thr Ser Ser Pro Cys Pro Ser Pro Trp Thr Cys Pro
20 25 30
Arg Pro Leu Ser Met Lys Ala Ser Ser Ser Pro Ala Pro Ala Ser Pro
35 40 45
Cys Glu Thr Ser Glu Thr Ile Ala Ile Trp Pro Ser Ser Pro Leu Thr
50 55 60
Ile Ser Thr Ala Leu Thr Ser Glu Phe Ser Cys Ser Phe Gly Phe Trp
65 70 75 80
Arg Ser Cys Pro Val Phe Gln Arg Glu Arg Ser Leu Ile Ala Leu Arg
85 90 95
Cys Leu Ser Gly Thr Thr Asp Ala Thr Leu Gln Leu Thr Thr Pro Ile
100 105 110
Ala Pro Ile Asn Gln Thr Ser Val Arg Thr Val Gly Leu Ala Asp Trp
115 120 125
Phe Ser Leu Arg Arg Ala Lys Glu Ala Lys Leu Val Phe Gly Gly Asp
130 135 140
Glu Glu His Pro Ala Ile Lys Tyr Leu Tyr Asn Lys Val Gln Glu Phe
145 150 155 160
Tyr Val Gly Gly Lys Ile Glu Ala Ile Asn Lys Leu Asn His Tyr Asp
165 170 175
Tyr Val Ala Leu Arg Cys Thr Ser Asp Asn Arg Ser Pro Glu Leu Gln
180 185 190
Thr Arg Asn Asp Ala Asn Arg Pro Arg Leu Tyr Arg His Ser Arg Gly

195 200 205
Ala Ala Cys Ser Leu Arg Gln Ala Arg Leu Glu Pro Ser Cys Cys Phe
210 215 220
Pro Asp
225

<210> 32651
<211> 379
<212> PRT
<213> A.fumigatus

<400> 32651
Leu Val Ser Arg Asn Pro Met His Arg Ala His Arg Glu Leu Thr Val
1 5 10 15
Arg Ala Ala Arg Ala Arg Gln Ala Asn Val Leu Ile His Pro Val Val
20 25 30
Gly Leu Thr Lys Pro Gly Asp Ile Asp His Phe Thr Arg Val Arg Ala
35 40 45
Tyr Gln Ala Leu Leu Pro Arg Tyr Pro Asn Gly Met Ala Val Leu Gly
50 55 60
Leu Leu Gly Leu Ala Met Arg Met Gly Gly Pro Arg Glu Ala Ile Trp
65 70 75 80
His Ala Ile Ile Arg Lys Asn His Gly Ala Thr His Phe Ile Val Gly
85 90 95
Arg Asp His Ala Gly Pro Gly Lys Asn Ser Lys Gly Gln Glu Phe Tyr
100 105 110
Gly Pro Tyr Asp Ala Gln His Ala Val Glu Lys Tyr Arg Glu Glu Leu
115 120 125
Gly Ile Glu Val Val Glu Phe Gln Gln Val Thr Tyr Leu Pro Asp Thr
130 135 140
Asp Glu Tyr Lys Pro Lys Asp Glu Val Pro Pro Gly Val Lys Thr Leu
145 150 155 160
Asp Ile Ser Gly Thr Glu Leu Arg Asn Arg Leu Arg Thr Gly Ala Pro
165 170 175
Ile Pro Glu Trp Phe Ser Tyr Pro Glu Val Val Lys Ile Leu Arg Glu
180 185 190
Ser Ser Pro Pro Arg His Thr Gln Gly Phe Thr Ile Phe Leu Thr Gly
195 200 205
Tyr Met Asn Ser Gly Lys Asp Ala Ile Ala Arg Ala Leu Gln Val Thr
210 215 220
Leu Asn Gln Gln Gly Gly Arg Ser Val Ser Leu Leu Leu Gly Asp Thr
225 230 235 240
Val Arg His Glu Leu Ser Ser Glu Leu Gly Phe Ser Arg Glu Asp Arg
245 250 255
His Thr Asn Ile Gln Arg Ile Ala Phe Val Ala Gly Glu Leu Thr Arg
260 265 270
Ala Gly Ala Ala Val Ile Ala Ser Pro Ile Ala Pro Tyr Glu Glu Ser
275 280 285
Arg Asn Ala Ala Arg Asp Ala Val Thr Gln Ala Gly Gly Asn Phe Phe
290 295 300
Leu Val His Val Ala Thr Pro Leu Glu Tyr Cys Glu Lys Thr Asp Lys
305 310 315 320
Arg Gly Ile Tyr Ala Lys Ala Arg Arg Gly Glu Ile Lys Gly Phe Thr
325 330 335
Gly Val Asp Asp Pro Tyr Glu Thr Pro Ser Lys Ala Asp Leu Thr Val
340 345 350

```
Asp Val Ser Lys Gln Thr Val Arg Ser Ile Val His Glu Ile Ile Leu
        355                 360                 365
Met Leu Glu Thr Glu Gly Phe Phe Asp Arg Ser
    370                 375
```

<210> 32652
<211> 68
<212> PRT
<213> A.fumigatus

<400> 32652

```
Ile His Lys Met Ala Asn Pro Pro His Gly Gly Val Leu Lys Asp Leu
1               5                   10                  15
Leu Ala Arg Asp Ala Pro Arg His Asp Glu Leu Glu Met Glu Ala Glu
            20                  25                  30
Lys Leu Pro Ala Ile Val Leu Thr Glu Arg Gln Leu Cys Asp Leu Glu
        35                  40                  45
Leu Ile Met Asn Gly Gly Phe Ser Pro Leu Glu Gly Lys Phe Thr Pro
    50                  55                  60
Gln Ile Ser Phe
65
```

<210> 32653
<211> 129
<212> PRT
<213> A.fumigatus

<400> 32653

```
Arg His Gln Ser Leu Gln Ser Thr Arg His Pro Cys Val Gln Trp Ala
1               5                   10                  15
Trp Leu Thr Gly Phe His Tyr Val Gly Pro Arg Lys Pro Ser Trp Ser
            20                  25                  30
Leu Ala Val Met Arg Ser Thr Leu Pro Ser Ser Ile Ser Thr Thr Arg
        35                  40                  45
Phe Arg Asn Ser Thr Ser Glu Glu Arg Leu Arg Pro Ser Thr Ser Ser
    50                  55                  60
Thr Thr Thr Thr Met Ser Leu Ser Ala Val Arg Pro Ile Ile Val Arg
65                  70                  75                  80
Pro Asn Cys Lys Arg Glu Met Met Leu Ile Asp Pro Gly Tyr Ile Asp
                85                  90                  95
Thr Pro Ala Glu Leu Arg Val His Phe Asp Lys Leu Gly Trp Asn Arg
            100                 105                 110
Val Val Ala Phe Gln Thr Arg Tyr Ile Thr Phe Pro Gln Ser Thr Ser
        115                 120                 125
Lys
```

<210> 32654
<211> 182
<212> PRT
<213> A.fumigatus

<400> 32654

```
Phe Thr Pro Leu Ser Val Ser Pro Ser Leu Glu Thr Ser Thr Thr Ser
1               5                   10                  15
Pro Val Ser Ala Pro Thr Arg Leu Ser Ser Pro Ala Thr Pro Thr Glu
```

```
            20                  25                  30
Trp Pro Ser Trp Ala Phe Trp Ala Ser Pro Cys Val Trp Val Val Pro
        35                  40                  45
Val Arg Pro Ser Gly Thr Pro Ser Ser Val Arg Thr Thr Val Pro Leu
    50                  55                  60
Thr Ser Ser Ser Asp Val Thr Met Leu Val Pro Ala Arg Thr Pro Arg
65                  70                  75                  80
Ala Arg Asn Ser Thr Ala Leu Thr Met Leu Ser Thr Leu Ser Arg Ser
                85                  90                  95
Thr Gly Arg Ser Ser Ala Ser Arg Ser Ser Ser Ser Ser Arg Ser Pro
            100                 105                 110
Thr Cys Pro Thr Pro Met Ser Thr Ser Pro Arg Thr Arg Tyr Pro Leu
        115                 120                 125
Ala Ser Arg Pro Trp Ile Ser Pro Val Pro Ser Cys Ala Thr Ala Cys
    130                 135                 140
Ala Pro Val Leu Pro Ser Pro Asn Gly Ser Leu Thr Pro Lys Ser Ser
145                 150                 155                 160
Arg Ser Ser Ala Asn Leu Ala Leu Leu Ala Thr Leu Arg Val Ser Pro
                165                 170                 175
Ser Ser Leu Pro Gly Thr
            180
```

<210> 32655
<211> 68
<212> PRT
<213> A.fumigatus

```
<400> 32655
Arg Gln Phe Thr Pro Leu Ser Val Cys Glu Asn Val Arg Leu Ala Asp
1               5                   10                  15
Gly Asn Leu Phe Ser Met Pro Ile Thr Leu Asp Val Ser Gln Ala Val
            20                  25                  30
Ile Asp Glu Gly Lys Leu Lys Pro Gly Ser Arg Val Thr Leu Arg Asp
        35                  40                  45
Phe Arg Asp Asp Arg Asn Leu Ala Ile Leu Thr Ile Asp Asp Ile Tyr
    50                  55                  60
Arg Pro Asp Lys
65
```

<210> 32656
<211> 202
<212> PRT
<213> A.fumigatus

```
<400> 32656
Ser Met Leu Pro Pro Arg Val Ser Ala Gly Arg Ile Pro Ala Val Ser
1               5                   10                  15
Arg Pro Leu Leu Pro Pro Ser Ser His Gly Leu Arg His Gln Phe Arg
            20                  25                  30
Pro Phe Thr His Arg Ser Arg Leu Leu Leu Leu Ser Pro Pro Leu Gly
        35                  40                  45
Arg Pro Gln Val Pro Phe Leu Ser Pro Leu Ala Ser Thr Arg Pro Leu
    50                  55                  60
Pro Pro Leu Ser Ile His Leu Arg Gln His Phe Ala Arg Leu Ile Ser
65                  70                  75                  80
Thr Glu Arg Arg Asp Tyr Tyr Lys Arg Arg Leu Ser Arg Gly Leu Arg
```

```
                85                  90                  95
Ile Gly Leu Thr Phe Tyr Ala Ile Leu Val Leu Phe Gln Val Ile Lys
            100                 105                 110
Leu Gly Val Tyr Gln Glu Glu Ile Glu His Gln Trp Pro Thr Pro Ser
        115                 120                 125
Glu Trp Ser Trp Lys Ser Arg Trp Cys Leu Arg Ser Ala Gln Ala Leu
    130                 135                 140
Gln Asn Pro Glu Gln Ile Gly Lys Leu Met Thr Asn Trp Pro Met Val
145                 150                 155                 160
Ala Gly Tyr Leu Arg Glu Leu Leu Glu Arg Leu Glu Asn Leu Glu Gly
                165                 170                 175
Glu Gly Lys Gly Ile Lys Glu Gln Glu Glu Gly Gly Ile Tyr Val Glu
            180                 185                 190
Cys Val Gly Arg Thr Gly Phe Asp Ile Thr
        195                 200
```

<210> 32657
<211> 1102
<212> PRT
<213> A.fumigatus

<400> 32657

```
Trp Gln His Pro Phe Asp Lys Asn Lys Ala Tyr Ala Leu Gly Ala Asn
1               5                   10                  15
Arg Arg His Trp Val Thr Lys Asp Gln Ala Lys Thr Trp Glu Ser Phe
            20                  25                  30
Glu Val Asp Gly Tyr Ala Ala Ala Gln His Glu Pro Leu Ile Phe His
        35                  40                  45
Gly Trp Asp Ser Ala Lys Val Ile Phe Gln Ser Asp Glu Cys Met Gly
    50                  55                  60
Arg Leu Cys Ile Val Lys Ser Tyr Tyr Thr Thr Asp Asp Phe Lys Thr
65                  70                  75                  80
Val Ser Pro Leu Arg Val Ser Ala Gly Gly Cys Leu Trp Ala Val Gly
                85                  90                  95
His Pro Gln Phe Ala Asp Gly Leu Asn Leu Glu Asp Glu Leu Arg Asp
            100                 105                 110
Arg Val Leu Cys Ile Val Pro Gly Leu Lys Val Pro Ser Ala His Ala
        115                 120                 125
Asn Arg Leu Val Tyr Ser Asp Asp Phe Phe Arg Ser Asp Ala Glu Gly
    130                 135                 140
Thr Glu Leu Asn Ile Gln His Gly Arg Pro Val Ser Gly Ile Leu Ser
145                 150                 155                 160
Ala Ala Ala Val Lys Lys Phe Phe Val Thr Ala Ala Lys Ser Gln Gly
                165                 170                 175
Thr Asn Glu Leu Ala Leu Tyr Val Thr Leu Asp Thr Lys Ala Trp His
            180                 185                 190
Arg Ala Asp Phe Gly Gly His Arg Val Glu Gln Asp Gly Tyr Thr Leu
        195                 200                 205
Leu Glu Ser Thr Asn Tyr Ser Met Gln Val Asp Val Leu Thr Ser Pro
    210                 215                 220
Ser Ser Asn Thr Gly Val Leu Phe Thr Ser Asn Ser Asn Gly Thr Tyr
225                 230                 235                 240
Phe Thr Arg Asn Val Glu His Thr Asn Arg Asp Arg Phe Gly His Val
                245                 250                 255
Asp Phe Glu Lys Ile Ala Asp Ile Gln Gly Ile Val Leu Val Asn Thr
            260                 265                 270
```

```
Val Lys Asn Trp Asp Lys Val Glu Ser Glu Asn Glu Lys Lys Val Val
        275                 280                 285
Ser Ser Ile Ser Phe Asp Asp Gly Arg Thr Phe Gln Ser Leu Lys Val
    290                 295                 300
Gly Asp Lys Gln Leu His Leu His Ser Val Thr Thr Phe Ala Asn Thr
305                 310                 315                 320
Gly Arg Val Phe Ser Ser Pro Ala Pro Gly Leu Val Met Gly Val Gly
                325                 330                 335
Asn Thr Gly Asp His Leu Lys Lys Tyr Ser Glu Gly Ser Leu Tyr Val
            340                 345                 350
Ser Asp Asp Ala Gly Val Thr Trp Arg His Ala Leu Asp Gly Pro Phe
        355                 360                 365
Lys Tyr Glu Phe Gly Asp Gln Gly Ser Val Ile Met Ala Val Ser Asp
    370                 375                 380
Lys Gly Thr Thr Asp Glu Ile Gln Phe Ser Ile Asp His Gly Lys Glu
385                 390                 395                 400
Trp His Ser Thr Lys Leu Gln His Lys Ile Asn Pro Lys Leu Leu Thr
                405                 410                 415
Thr Thr Pro Asp Ser Thr Ser Leu Thr Phe Leu Leu Val Gly Ser Glu
            420                 425                 430
Glu Ser Arg Glu Gln Lys His Val Val Tyr Ser Ile Asp Phe His Gly
        435                 440                 445
Leu His Glu Arg Lys Cys Glu Lys Asp Asp Phe Glu Lys Trp Arg Gln
    450                 455                 460
Arg Leu Asn Glu Asn Gly Glu Pro Asp Cys Leu Met Gly His Gln Gln
465                 470                 475                 480
Phe Phe Asn Arg Arg Lys Thr Asn Ala Asp Cys Phe Val Asp Glu Glu
                485                 490                 495
Phe Lys Asp Pro Gln Pro Ile Phe Glu Pro Cys Lys Cys Ser Phe Glu
            500                 505                 510
Asp Phe Glu Cys Asp Phe Asn Phe Val Arg Ser Glu Asp Gly Lys Ser
        515                 520                 525
Cys Val Pro Thr Ala Pro Leu Val Pro Pro Val Gly Arg Cys Gln Lys
    530                 535                 540
Gln Thr Asp Thr Phe Met Gly Pro Ser Gly Trp Arg Leu Ile Pro Gly
545                 550                 555                 560
Asn Thr Cys Thr Arg Glu Gly Gly Glu Asn Leu Asp Lys Val Val Glu
                565                 570                 575
Arg Pro Cys Lys Asp Val Val Ser Ala Pro Ser His Asp Lys Pro Met
            580                 585                 590
Ala Gln Lys Gln Val Phe Asn Asp Ala Arg Gln Phe Ser Glu Gln Tyr
        595                 600                 605
Tyr Tyr Leu Glu Arg Gln Ala Ser Ser Ser Gly Asp Asp Glu Thr Val
    610                 615                 620
Ile Met Leu Thr Ser Glu Gly Glu Phe Trp Val Ser His Asp His Gly
625                 630                 635                 640
Lys Asn Trp Glu Gln Pro Leu Lys Gly Val Lys Ile Ala Ala Ile Val
                645                 650                 655
Pro His Pro Tyr Tyr Ser Asp Gly Ala Phe Leu Leu Thr Arg Asp Lys
            660                 665                 670
Gln Ala Phe Trp Thr Val Asp Arg Ala Tyr Thr Phe Lys Ser Phe Glu
        675                 680                 685
Ala Pro Ile Pro Pro Asn Gln Glu Gly Leu Pro Val Leu Ser Phe His
    690                 695                 700
Pro His Tyr Lys Asp Trp Leu Ile Trp Thr Gly Ala Val Asp Cys Ser
705                 710                 715                 720
```

```
His Gly Asp Cys His Ser Asp Ala Tyr Phe Ser Lys Asn Arg Gly Glu
                725                 730                 735
Asn Trp Asp Leu Leu Leu Arg Tyr Val Gly Lys Cys Glu Phe Glu Ser
            740                 745                 750
Arg Glu Asn Arg Pro Gly Ser Glu Lys Leu Ile Phe Cys Gln Gln Tyr
        755                 760                 765
Glu Asn Glu Asn Lys Lys Asn His Leu Gln Leu Leu Ser Ser Glu Asn
    770                 775                 780
Leu Phe Ser Asp Ser His Val His Phe Asn Asp Ala Ile Arg Tyr Ala
785                 790                 795                 800
Thr Met Ser Glu Tyr Ile Ile Val Ala Ser Arg Asp Pro Asp Asn Pro
                805                 810                 815
Asp Ser Leu Ile Ala Ser Val Ser Val Asp Gly Lys Thr Phe Ala Arg
            820                 825                 830
Ala Glu Phe Pro Ser Asn Val Asp Val Pro Val Lys Thr Ala Phe Thr
        835                 840                 845
Val Leu Asp Ser Ser Thr His Ala Val Phe Leu His Val Thr Val Ser
    850                 855                 860
Asp Val Lys Gly Ala Glu Tyr Gly Ser Ile Ile Lys Ser Asn Ser Asn
865                 870                 875                 880
Gly Thr Ser Tyr Val Leu Ser Leu Asn Ala Ala Ser Arg Asn Glu Trp
                885                 890                 895
Gly Tyr Val Asp Phe Glu Lys Met Gln Gly Leu Glu Gly Val Ala Val
            900                 905                 910
Val Asn Ile Ile Ser Asn Val Asp Ala Val Gln Lys Lys Arg Pro Ala
        915                 920                 925
Ala Lys Lys Leu Lys Thr Met Ile Thr His Asn Asp Gly Gly Gln Trp
    930                 935                 940
Met Leu Leu Pro Pro Pro Ala Lys Asp Ala Asp Gly Lys Asn Phe Gly
945                 950                 955                 960
Cys Ser Val Lys Asp Gly Lys Gly Ser Asp Gln Cys Ser Leu His Leu
                965                 970                 975
His Gly Tyr Thr Glu Arg Arg Asp Pro Arg Asp Thr Phe Ser Ser Gly
            980                 985                 990
Ser Ala Ile Gly Leu Met Met Gly Ile Gly Asn Val Gly Ala Tyr Leu
        995                 1000                1005
Ser Gly Lys Asp Glu Ala Asp Thr Phe Met Thr Arg Asp Gly Gly Ile
    1010                1015                1020
Thr Trp Lys Ser Val Lys Lys Gly Arg Tyr Met Trp Glu Tyr Gly Asp
1025                1030                1035                1040
Ala Gly Ser Val Ile Val Ile Val Pro Glu Leu Arg Pro Thr Lys Val
                1045                1050                1055
Leu Tyr Tyr Ser Leu Asp Glu Gly Asp Asn Trp Glu Pro Tyr Glu Phe
            1060                1065                1070
Ser Glu Val Glu Met His Ile Tyr Arg Leu Ser Tyr Arg Ser Leu Arg
        1075                1080                1085
His Phe Gln Glu Phe Ser Ser Leu Gly Gln Arg Asn Gly Val
    1090                1095                1100
```

<210> 32658
<211> 246
<212> PRT
<213> A.fumigatus

<400> 32658

```
Cys Arg Ser Gly Pro Ser Ser Arg Val Val Arg Ile Arg His Arg Gly
```

```
1               5                   10                  15
Pro Phe Arg Lys Val Asn Ser His Leu Arg Gly Arg Tyr Ile Lys Cys
            20                  25                  30
Pro Ser Pro Trp Ser Phe Ile Val Val Tyr Gln Ser Arg Lys Met Thr
        35                  40                  45
Pro Leu Val Lys Val Gly Ser Leu Leu Ala Ala Leu Leu Trp Val Thr
    50                  55                  60
Phe Gly Ile Ala Thr Val Ser Ala Ser Ile Pro Ser Ser Lys Arg Phe
65                  70                  75                  80
Asp Leu Ser Ala Pro Ser Ala Asp Leu Tyr Arg His Lys Ala Leu Arg
                85                  90                  95
Asp Asp Thr Val Gln Gln Gly Phe Ala Phe Asp Asn Val Asn Arg Arg
            100                 105                 110
Leu Phe Val Ala Gln Arg Arg Asp Gly Ser Ser Glu Thr Ala Gly Asp
        115                 120                 125
Leu Thr Ile Thr Gln Leu Asp Phe Asp Gly Asn Tyr Val Gly His Met
    130                 135                 140
Tyr Leu Lys Ser Phe Gly His Gly Val Ser Phe Gly Ala Gln Ala Val
145                 150                 155                 160
Gly Ser Ala Thr Tyr Leu Trp Thr Glu Val Asp Ala Asn Ala Asn Gly
                165                 170                 175
Tyr Gly Lys Gln Leu Ala Arg Phe Lys Phe Ala Ser Gly Thr Thr Leu
            180                 185                 190
Thr Ser Ser Ser Ala Gln Leu Ala Lys Phe Lys Pro Val Ala Asp Ala
        195                 200                 205
Thr Glu His Thr Cys Ala Ile Asp Pro Val Tyr Asn Arg Leu Ile Val
    210                 215                 220
Arg Tyr His Leu Ser Gly Ser Lys His Ile Ala Ser Ser Pro Arg Gly
225                 230                 235                 240
Trp Lys Glu Pro Leu Tyr
                245
```

<210> 32659
<211> 249
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (2),(7)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32659

```
Val Xaa Asp Met Asn Pro Xaa Ala Ser His Arg Phe Phe Thr Arg Pro
1               5                   10                  15
Asp Thr Glu Ala Asp Arg Ala Ala His Lys Tyr Pro Val Glu Ala Ser
            20                  25                  30
Ala Gly Glu Glu Tyr Asn Phe Pro Asp Lys Trp Ile Ser Phe Ile Leu
        35                  40                  45
Asn Leu Pro Ser Ala Phe Pro His His Arg Thr Gln Cys Ile Ile Glu
    50                  55                  60
Lys Val Asp Ala Leu Trp Asp Cys Ile Leu Arg Arg Leu Thr Leu Gly
65                  70                  75                  80
Gly Ala Gln Ser Phe Ser Ala Trp Trp Met Thr Lys Val Phe Phe His
                85                  90                  95
Glu Met Met Leu Trp Gln Ala Glu Lys Asn Gly Phe Met Arg Phe Thr
```

```
            100                 105                 110
Pro Ser Ser Leu Gln Asn Met Ser Tyr Gly Ser Asn Gln Pro Gly Ser
        115                 120                 125
Pro Ser Phe Leu Leu Lys Gln Ser Ser Gly Gln Ser Ala Gly Lys Asn
    130                 135                 140
Asp Ser Phe Ser Ala Ser Asp Ala Gln Gln Ala Asn Asp Arg Ser Arg
145                 150                 155                 160
Ser Thr Ala Arg Pro Ser Ser Ala Asp Val Asn Pro Gln Thr Arg Thr
                165                 170                 175
Ser Leu Ser Arg Pro Pro Ser Asp Ala Asp Pro Asn Gln Ala Leu Val
            180                 185                 190
Glu Thr Glu Lys Pro Pro Ser Ile Ser Asp Asn Ile Ala Asn Phe His
        195                 200                 205
Ala Pro Asn Asn Asp Asp Ser Ala Ile Asp Leu Asp Asp Asp Ser Met
    210                 215                 220
Leu Met Ser Val Gly Lys Tyr Gly Asp Met Met Ala Ser Asp Pro Ala
225                 230                 235                 240
Asp Ala Glu Gly Asp Val Val Val Ile
                245
```

<210> 32660
<211> 96
<212> PRT
<213> A.fumigatus

<400> 32660

```
Gly Ser Ala Leu Asp Asp Leu Cys Thr Arg Asp Glu Thr Ser Ile Asp
1               5                   10                  15
Ser Thr Asp Ile Gly Leu Asp His Cys Gly Tyr Ser Val Asp Ile His
            20                  25                  30
Thr His Ile Asn Ser Val Leu Asp Phe Ala Ser Ser Phe Ser Leu Phe
        35                  40                  45
Ser Phe Ala Phe Arg Leu Gly Asn Thr Arg Pro Leu Leu Met Tyr Ile
    50                  55                  60
Gly Leu Arg Ser Thr Leu Ser Ala Gly Ile Ile His Ser Phe Leu Thr
65                  70                  75                  80
Val Leu Ala Phe Val Tyr Ser Ile His Phe Phe Leu Tyr Arg Ser Phe
                85                  90                  95
```

<210> 32661
<211> 168
<212> PRT
<213> A.fumigatus

<400> 32661

```
Ile Asn Val Arg Pro Gln Glu Leu Met Ala Asp Phe Ser Gln Trp Met
1               5                   10                  15
Asp Ala His Glu Thr Trp Ala Thr His Asn Leu Ala Glu Thr Cys Cys
            20                  25                  30
Ala Ser Ile Ser Leu Asp Asp Leu Leu Ala Phe Ala Gly Asn Lys Asp
        35                  40                  45
Arg Ala Thr Leu Val Asp Phe Ser Gln Lys Gln Thr Tyr Gly Pro Ile
    50                  55                  60
Arg Gly Ser Asp Ala Leu Arg Ser Asn Ile Ala His Leu Tyr Arg Ser
65                  70                  75                  80
Asp Arg Cys Glu Pro Leu Ser Lys Asp Asn Ile Leu Val Thr Asn Gly
```

```
                85                  90                  95
Ala Ile His Ala Asn Phe Leu Ala Leu Tyr Ala Asn Val Ala Arg Gly
            100                 105                 110
Asp His Val Ile Cys His Tyr Pro Thr Tyr Gln Gln Leu Tyr Ser Val
        115                 120                 125
Pro Glu Ser Phe Gly Ala Glu Val Ser Leu Trp Arg Ala Asp Gly Gln
    130                 135                 140
Asn Gly Trp Gln Val Ser Leu Asn Asp Leu Arg Ser Leu Ile Arg Pro
145                 150                 155                 160
Asn Thr Lys Val Ile Ile Ile Lys
                165
```

<210> 32662
<211> 144
<212> PRT
<213> A.fumigatus

<400> 32662

```
Gln Ser His Ser Asn Pro Gln Asn Pro Thr Gly Ala Val Leu Ser Arg
1               5                   10                  15
Glu Val Leu Gln Glu Ile Val Asp Ile Ala Arg Gln His Gly Ile Ile
            20                  25                  30
Ile His Ser Asp Glu Val Tyr Arg Pro Leu Phe His Ser Leu Glu Asn
        35                  40                  45
Gly Gln Asp Glu Pro Pro Ser Ile Leu Ser Phe Asn Tyr Glu Lys Thr
    50                  55                  60
Val Ala Thr Ser Ser Val Thr Lys Ala Phe Ser Leu Ala Gly Ile Arg
65                  70                  75                  80
Val Gly Trp Ile Ala Ser Arg Ser Arg Glu Ile Ile Glu Gln Cys Ala
                85                  90                  95
Thr Ala Arg Asp Tyr Thr Leu Ile Ser Val Ser Gln Val Asp Asp Arg
            100                 105                 110
Ile Ala Thr Cys Ala Leu Ser Glu Pro Thr Val Ser Asn Ile Leu Lys
        115                 120                 125
Arg Asn Leu Asp Leu Ala Arg Gly Asn Leu Asp Leu Leu Asp Gly Phe
    130                 135                 140
```

<210> 32663
<211> 131
<212> PRT
<213> A.fumigatus

<400> 32663

```
Arg Ala Lys Tyr Lys Arg Asp Glu Arg Tyr Arg Lys Ile Phe Asn His
1               5                   10                  15
Val Ile Tyr Cys Val Pro Asn Phe Ser Asn Pro Thr Gly Val Thr Met
            20                  25                  30
Ser Leu Arg Arg Arg Glu Ala Leu Val Arg Leu Ala Arg Arg Leu Asn
        35                  40                  45
Gly Leu Val Ile Cys Asp Asp Val Tyr Asp Phe Leu His Trp Pro Ala
    50                  55                  60
Pro His Ser Ser Asn Asn Glu Ser Ala Trp Ser Ser Met Leu Pro Arg
65                  70                  75                  80
Val Leu Asp Leu Asp Arg Thr Leu Asp Gly Gly Pro Arg Asp Ser Phe
                85                  90                  95
Gly Asn Val Val Ser Asn Gly Thr Phe Ser Lys Ile Val Ala Pro Gly
```

```
            100                 105                 110
Cys Arg Val Gly Trp Ala Glu Gly Glu Pro Gln Leu Val Tyr Gly Leu
        115                 120                 125
Ser Gln Val
    130
```

<210> 32664
<211> 65
<212> PRT
<213> A.fumigatus

<400> 32664

```
Arg Arg Leu Val Leu Pro Val Phe Gln Gly Met Glu Lys Arg Pro Val
1               5                   10                  15
His Leu Ile Thr Met Asp Asp Asp Thr Met Leu Ala Arg Asn Ile Tyr
            20                  25                  30
Asn Leu Leu Gln His Phe Thr Ala Gln Asp Ser Pro Ser Trp Ile Leu
        35                  40                  45
Arg Ile Ala Met Thr Leu Ser Gly Pro His Ser Leu Ser Val Gly Val
    50                  55                  60
Thr
65
```

<210> 32665
<211> 91
<212> PRT
<213> A.fumigatus

<400> 32665

```
Lys Thr Val Leu Ser Val Pro Val Gln Arg Leu Asn Cys Ser Leu Ala
1               5                   10                  15
Leu Glu Leu Ser Arg Ala Phe Val His Ala Lys Ala Pro Gly His Thr
            20                  25                  30
Ile Ser Asp Glu Asp Ile Cys His Gly Val Glu Ser Phe Ser Leu Thr
        35                  40                  45
Gly Arg Phe Glu Ile Ile Asn Glu Gly Gln Val Gln Trp Phe Val Asp
    50                  55                  60
Gly Ala His Asn Val Leu Ser Leu Gly Glu Ala Ala Glu Trp Phe Ala
65                  70                  75                  80
Arg Asn Ala Ser Asn Glu Gln Lys Tyr Val Asp
                85                  90
```

<210> 32666
<211> 144
<212> PRT
<213> A.fumigatus

<400> 32666

```
Pro Ala Val Gly Ser Ser Asp Ser Lys Pro Ala Pro Glu Thr Asn Ala
1               5                   10                  15
Gln Phe Ser Phe Phe Gly Gln Asp Asp Ile Glu Ser Glu Glu Glu Glu
            20                  25                  30
Glu Glu Tyr Arg Glu Pro Gln Thr Pro Phe Thr Lys Lys Asp Leu Leu
        35                  40                  45
Ser Arg Gly Leu Arg Ser Ala Ala Pro Thr Pro Asp Thr Ala Leu Ile
    50                  55                  60
```

```
Asn Arg Lys Ile Asp Trp Asn Asn Asp Asp Ser Asp Ala Met Glu Val
65                  70                  75                  80
Thr Glu Glu Tyr Ala Asp Thr Pro Ile Thr Arg Ala Glu Ser Lys Ala
                85                  90                  95
Glu Ser Lys Glu Asp Ser Glu Phe Thr Lys Trp Phe Trp Glu Asn Arg
            100                 105                 110
Gly Asp Asn Asn Arg Ala Trp Lys Lys Arg Arg Arg Asp Ala Ala Lys
        115                 120                 125
Glu Gln Arg Gln Arg Glu Asn Arg Arg Thr Gly Met Lys Gly Lys Ser
    130                 135                 140
```

<210> 32667
<211> 71
<212> PRT
<213> A.fumigatus

<400> 32667

```
Ala Gln Asn Val Val Cys Pro Ile His Lys Pro Leu Tyr Leu Pro Phe
1               5                   10                  15
Ile Tyr Asp Phe Glu Pro Ala Ser Gln Arg Glu Thr Phe Asn Thr Met
            20                  25                  30
Thr Asp Val Phe Val Thr Asn Cys Met Ala Arg Arg Leu Ser Met Asn
        35                  40                  45
Glu Cys Ser Thr Glu Leu Lys Cys Gln Gly Thr Ile Gln Ser Leu His
    50                  55                  60
Arg Asp Ala Glu Asp Cys Leu
65                  70
```

<210> 32668
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32668

```
Asn Ala Thr Ala Lys Val Asp Ala Ile Ile Ala Glu Asn Pro Gly Lys
1               5                   10                  15
Ser Leu Asp Glu Leu Val Ala Glu Lys Lys Ile Asn Val Asp Gln Lys
            20                  25                  30
Ala Gln Gly Pro Glu Glu Ala Cys Ala Pro Gly His Arg Arg Ser Asn
        35                  40                  45
Arg Gly Ala Asn Arg Ser Ile Gln Glu Leu Arg Gln Pro Leu
    50                  55                  60
```

<210> 32669
<211> 176
<212> PRT
<213> A.fumigatus

<400> 32669

```
Leu Arg Arg Arg Arg Ser Thr Trp Thr Arg Lys Arg Arg Ala Leu Lys
1               5                   10                  15
Lys Pro Ala Leu Gln Ala Thr Val Ala Gln Ile Glu Glu Gln Ile Ala
            20                  25                  30
Gln Phe Lys Ser Phe Ala Ser His Tyr Glu Glu Arg Leu Asn Ser Gln
        35                  40                  45
Lys Ala Ala Leu Glu Lys Ala His Lys Glu Glu Leu Asp Ala Val Arg
```

```
    50                  55                  60
Glu Lys Val Arg Ala Glu Ala Thr Glu Phe His Gln Lys Asp Leu Arg
65                  70                  75                  80
Gln Arg Leu Leu Ser Leu Thr Lys Phe Leu Cys Ala Ala Ala Ala Met
                85                  90                  95
Arg Arg Ser Gly Asp Glu Thr Ser Pro Glu Ser Arg Ala Phe Glu Gly
            100                 105                 110
Val Leu Tyr Gln Val Tyr Gly Gly Thr Gln Asp Ala Val Ser Ser Met
        115                 120                 125
Leu Lys Leu Ile Glu Gly Val Asp Glu Lys Val Val Ser Val Glu Gly
    130                 135                 140
Glu Thr Leu Glu Val Ser Cys Lys Glu Ala His His Asn Phe Leu Ile
145                 150                 155                 160
Glu Ser Asp Leu Val Gln Leu Ile Asn His Cys Ala Leu Ser Arg Arg
                165                 170                 175
```

<210> 32670
<211> 85
<212> PRT
<213> A.fumigatus

<400> 32670

```
Pro Ala Val Glu Pro Pro Ile Ser Thr Met Ala Ala Ile Ser Val Asn
1               5                   10                  15
Ser His Ser Gln Ala Gln Ser Glu Ala Ser Pro Arg Pro Asp Tyr Ala
            20                  25                  30
Val Ser Ala Ser Lys Ala Asp Ala Ala Gln Gly Thr Ala Asn Gly Val
        35                  40                  45
Asp Thr Leu Asp Asn Pro His Leu Lys Asp Leu Gln Arg Tyr Val Asn
    50                  55                  60
Phe Lys Ile Glu Ala Ser Ala Ser Val Ala Met Leu Tyr Phe Asp Cys
65                  70                  75                  80
Ser Asp His Glu Ile
                85
```

<210> 32671
<211> 190
<212> PRT
<213> A.fumigatus

<400> 32671

```
Leu Thr Ile Val Pro Cys Leu Asp Gly Lys Val Lys Gln Thr Ser Glu
1               5                   10                  15
Glu Tyr Val Pro Gly Glu Ala Thr Glu Glu Val Thr Ala Glu Ala Ser
            20                  25                  30
Ala Thr Ser Asp Pro Thr Leu Ala Asn Ala Ala Tyr Thr Glu Leu Gln
        35                  40                  45
Asp Gly Pro Leu Asp Ala Gly Ala Thr Ala Ala Asn Glu Ile Asp Ser
    50                  55                  60
Ser Ala Pro Lys Ala Glu Val Ser Pro Pro Ala Gln Thr Leu Val Ser
65                  70                  75                  80
Asp Ala Ala Asn Pro Val Ala Glu Ala Ser Trp Glu Gln Asn Gly Ala
                85                  90                  95
Gly Ser Leu Glu Ser Ser Ala Asn Ala Asp Gly Trp Val Glu Val Pro
            100                 105                 110
Arg Asp Pro Ala Glu Thr Glu Thr Gly Leu Gln Ala Thr Pro Ala Phe
```

```
        115                 120                 125
Val Asp Thr Gly Leu Lys Asp Asn Gln Thr Val Ala Ala Ala Leu Gly
    130                 135                 140
Pro Asn Asp Glu His Val Ser Val Pro Lys Ala Gln Gly Ser Asp Arg
145                 150                 155                 160
Phe Glu Pro Val Val His His Gln Lys Pro Gly Leu Arg Ala Ala Phe
                165                 170                 175
Gly Gly Pro Gly Trp Thr Cys Pro Gly Lys Arg Asp Ser Arg
            180                 185                 190

<210> 32672
<211> 79
<212> PRT
<213> A.fumigatus

<400> 32672
Asp Gln Ile Asp Leu Asp Phe Asn Phe Ile Ile Ile Phe Ile Leu Leu
1               5                   10                  15
Asp Ala Ala Arg Phe Phe Ser Leu Leu Leu Phe Pro Asp Leu Val Ser
            20                  25                  30
Pro Ser Ser Asp Ser Ser His Val Asn Lys Tyr Ser Lys His Leu Gln
        35                  40                  45
Ile Gln Leu Arg Arg Ser Phe Ser Tyr Trp Leu Pro Thr Val Arg Tyr
    50                  55                  60
Thr Ile Asn Gly Pro Pro His Ser Gly Ser Ile Leu Leu Ile Pro
65                  70                  75

<210> 32673
<211> 208
<212> PRT
<213> A.fumigatus

<400> 32673
Phe Leu Asp Asp His Pro Pro Cys Phe Arg Thr Ala Ala Thr Ile Pro
1               5                   10                  15
Asn Ala Gly Leu Gly Ile Ala Gly Met Glu Pro Ala Cys Pro Pro Pro
            20                  25                  30
Val His Lys Ser Pro Ser Thr Ser Thr Ala Pro Pro Arg Lys Arg Arg
        35                  40                  45
Lys Arg Thr Val Val Ser Gly Ala Ala Asp Asp Cys Phe Thr Cys Ala
    50                  55                  60
Arg Glu Gly Ser Val Cys Asp Arg Arg Arg Pro Tyr Cys Ser Gln Cys
65                  70                  75                  80
Leu Asn Arg Gly Arg Asp Cys Ala Gly Tyr Lys Thr Thr Leu Thr Trp
                85                  90                  95
Gly Val Gly Val Ala Ser Arg Gly Lys Leu Arg Gly Leu Ser Leu Pro
            100                 105                 110
Ile Thr Gly Ala Gln Pro Ala Ala Ala Gly Asp Ser Arg Arg Ser Gly
        115                 120                 125
Gly Lys Glu Asn Pro Ser Gly Gln Pro Val Ala Ser Pro Thr Thr Tyr
    130                 135                 140
Thr Phe Ala Ser Asp Ala Ser Pro Ala Ala Ala Ser Asp Ser Ala Glu
145                 150                 155                 160
Arg Ala Thr Phe Gln Ser Gln Glu Ser Pro Thr Pro Asp Thr Asn Glu
                165                 170                 175
Asn Ala Arg Trp Met Arg Thr Ala Ala Asn Pro Gly Ser Leu Ala Asp
```

```
            180                 185                 190
Ser His Glu Pro Ile Pro Trp Leu Glu Thr Ser Pro Gly Cys Lys His
        195                 200                 205
```

<210> 32674
<211> 64
<212> PRT
<213> A.fumigatus

<400> 32674

```
Phe Pro Pro Met Ala Glu Lys Ile Ala Asp Thr Ser Ala Val Pro Ser
1               5                   10                  15
Ala Glu Thr Ala Ala Ala Ser Gly Gly Asp Phe Ser Ser Pro Thr Ala
            20                  25                  30
Thr Asp Gly Thr Glu Ile Ala Arg Asn Asn Asp Val Thr Val Ala Asp
        35                  40                  45
Gln Glu Asn Ala Ala Arg Leu Ile Gln Val Arg Ser Thr Ser Ser Ile
    50                  55                  60
```

<210> 32675
<211> 389
<212> PRT
<213> A.fumigatus

<400> 32675

```
Gly Lys Cys Pro Phe Glu Asp His Thr Leu Thr Arg Leu Leu Thr Ser
1               5                   10                  15
Ser Val Gln Thr Leu Lys Glu Ala Arg Trp Arg Glu Leu Tyr Arg Pro
            20                  25                  30
Ser Val Ser Pro Glu Ser Ala Gly Thr Asp Ala Ser Lys Gln Val His
        35                  40                  45
Gln Lys Trp Glu Arg Val Val Ser Val Ala Met Gln Ala Gly Ser Asp
    50                  55                  60
Asp Gly Lys Phe Arg Asn Leu Asn Glu Thr Asp Ser Ser Lys Leu Pro
65                  70                  75                  80
Thr Ala Ser Pro Val Gly Thr Gly Arg Pro Ser Glu Asn Ala Pro Ala
                85                  90                  95
Asn Ala Ser Ser Thr Ala Arg Ser Arg Phe Pro His Ser Phe Pro Arg
            100                 105                 110
Leu His His Gly Val Pro Ser Glu Lys Arg Ala Lys Met Met Asp Gln
        115                 120                 125
Arg Tyr Phe Leu Glu Met Val Asp Leu Lys His Arg His Gly Ser Asn
    130                 135                 140
Leu Arg Lys Tyr His Asn Tyr Trp Met Asn Cys Pro Ser Thr Gln Asn
145                 150                 155                 160
Phe Phe Tyr Trp Leu Asp His Gly Glu Gly Lys Asp Leu Asp Leu Pro
                165                 170                 175
Glu Cys Pro Arg Ala Lys Leu Glu His Gln Gln Val Arg Tyr Phe Ser
            180                 185                 190
Arg Asp Glu Arg Leu Asn Tyr Leu Val Thr Val Asp Gln Ala Gly Leu
        195                 200                 205
Phe Leu Trp Ala Lys His Asn Glu Leu Val Cys Thr Asp Ser Thr Arg
    210                 215                 220
Phe Lys Asp Ser Leu Lys Gly Val Val Pro Val Ala Glu Asp Ala Pro
225                 230                 235                 240
Gln Phe Arg Gly His Ser Glu Ala Gly Tyr Pro Val Ala Tyr Ala Ser
```

```
                245                 250                 255
Ser Ser Ser Ser Val Ser Thr Gln Ser Leu Thr Asp Glu Asp Ser Ala
            260                 265                 270
Asp Asp Ser Pro Ser Glu Gln Ile Asn Gln Gly Tyr Glu Glu Ala Lys
        275                 280                 285
Gly Ile His Lys Leu Ala Gln Ile Thr Pro Ser Val Val Arg Asp His
    290                 295                 300
Phe Ala Arg Lys Pro Ala Lys Arg Lys Asp Met Trp Leu Phe Val Arg
305                 310                 315                 320
Pro Leu Leu Pro Ile Ile Glu His Leu Glu Arg Pro Met Thr Asp Lys
                325                 330                 335
Asp Thr Gly Arg Gly His Phe Ile Ser Pro Val His Arg Tyr Gln Gly
            340                 345                 350
Lys Gly Gly Leu Pro Thr Phe Leu Ile Pro Thr Gly Gly Ala Arg Cys
        355                 360                 365
Gly Gly Arg Phe Asp Gln Asp Leu Glu Trp Ser Thr Ala Gln Ser Asn
    370                 375                 380
Thr Phe Glu Val Asn
385
```

<210> 32676
<211> 152
<212> PRT
<213> A.fumigatus

<400> 32676

```
Leu Ile Gln Ala Ala Ser Leu Ala Thr Pro Val Gln Thr Ala Pro Met
1               5                   10                  15
Pro Ser Thr Thr Ser Ser Ser Ser Pro Arg Glu Thr Val Ser Thr Thr
            20                  25                  30
Pro Ser Pro Arg Thr Thr Pro Val Gln Gly Ile Ser Gln Lys Gly Asn
        35                  40                  45
Thr Ile Leu Pro Gln Phe Ser His Val Leu Leu Thr Asn Pro Gly Leu
    50                  55                  60
Pro Arg Pro Arg Asn Ser Ser Pro Gly Ser Arg Lys Pro Ala Leu Ser
65                  70                  75                  80
Arg Leu Ala Arg Phe Leu Pro Pro Asp Phe Asn Leu Thr Pro Phe Asp
                85                  90                  95
Ile Thr Ser Met Met Asn Phe Cys Pro Thr Lys Pro Pro Pro Ser Ala
            100                 105                 110
Pro Ser Pro Pro Ser Val Pro Ser Ser Pro Ser Lys Asn Gly Thr Thr
        115                 120                 125
Thr Pro Thr Thr Ser Thr Phe Asn Ser Thr Ala Thr Thr Ala Ser Val
    130                 135                 140
Pro Pro Ala Ala Ala Pro Arg Gly
145                 150
```

<210> 32677
<211> 209
<212> PRT
<213> A.fumigatus

<400> 32677

```
Leu Gly Pro Met Pro Gln Ile Leu Val Phe Pro Val Ser Thr Val Ala
1               5                   10                  15
Phe Leu Ala Val Leu Gly Gly Val Ser Ala Ala Pro Thr Ala Ser Cys
```

```
            20                  25                  30
Ser Ala His Val Ser Ala Pro Thr Gly Ala Thr Phe Ala Ser Gly Phe
        35                  40                  45
Asp Ile Thr Thr Ser Trp Gly Asn Leu Ser Pro Tyr Lys Asp Ala Pro
    50                  55                  60
Gly Phe Asn Val Ser Asn Gly Val Pro Arg Gly Cys Glu Leu Ser Gln
65                  70                  75                  80
Val His Val Leu His Arg His Ala Gln Arg Tyr Pro Val Ser Ser Leu
                85                  90                  95
Leu Asp Gly Gly Gly Met Glu Ala Phe Ala Gln Lys Val Lys Asn Tyr
            100                 105                 110
Ser Lys Leu His Asp Gly Arg Val Gly Lys Gly Pro Leu Asp Phe Leu
        115                 120                 125
Asn Gln Trp Glu Tyr Met Leu Gly Glu Asp Thr Leu Gln Val Thr Gly
    130                 135                 140
Ala Ala Thr Glu Ala Thr Ser Gly Ala Ser Ile Trp Ala Lys Tyr Gly
145                 150                 155                 160
Arg Leu Leu Tyr Arg Ala Gly Pro Gly Val Ala Ala Trp Asp Ser Ser
                165                 170                 175
Leu Asn Val Tyr Pro Asn Gly Thr Ala Arg Pro Lys Pro Ile Phe Arg
            180                 185                 190
Thr Thr Ser Gln Ala Arg Ile Leu Glu Ser Ala Arg Trp Trp Leu Ser
        195                 200                 205
Glu
```

<210> 32678
<211> 185
<212> PRT
<213> A.fumigatus

<400> 32678

```
Pro Ile Thr Arg Ser Thr Tyr Lys Met Glu Phe Gln Ser Arg Ile Ala
1               5                   10                  15
Gln Tyr Ser Leu Asp Glu Met Met Ile Asp Asp Ala Ser Ala Ser Leu
            20                  25                  30
Asp Ser Cys Met Gly Lys His Pro Cys Asp Leu Asp Ala Ala Phe His
        35                  40                  45
Glu Leu Asp Phe Pro Ser Pro Pro Ser Thr Glu Glu Ile Ser Asp Thr
    50                  55                  60
Glu Thr Glu Ala Ala Thr Glu Ile Ala Glu Glu Thr Glu Gly Lys Lys
65                  70                  75                  80
Ala Leu Pro Ser Arg Leu Glu Val Ser Phe Thr Thr Pro Leu Asp Gly
                85                  90                  95
Phe Asp Pro Leu Gln Arg Arg Leu Ser Arg Leu Thr His Arg Leu Arg
            100                 105                 110
His Ser Val Leu Tyr Phe Leu Ala Leu Tyr Gly Ile Ser Ile Gln Tyr
        115                 120                 125
Ala Leu Tyr Pro Ile Glu Glu Ser Gly Ile Gly Gly Val His Asn Ala
    130                 135                 140
Leu Pro Val Val Leu Leu Val Ala Thr Asp Asp Val Pro Val Ser Met
145                 150                 155                 160
Trp Arg Lys Gly Val Lys Arg Ala Tyr Glu Tyr Leu Ser Ser Arg Thr
                165                 170                 175
Gly Lys Arg Arg Ala Ile Leu Leu Cys
            180                 185
```

<210> 32679
<211> 63
<212> PRT
<213> A.fumigatus

<400> 32679
Val Ser Ser Pro Leu Pro Asn Gly Ala Cys Leu Leu Arg Leu Ile Leu
1 5 10 15
Thr Asp Thr Gly Gly Phe Phe Gly Asn Thr Gly Ala Asn Ser Ser Tyr
20 25 30
Ala Glu Tyr Asp Leu Val Ile Ile Pro Glu Gly Asp Gly Leu Asn Asn
35 40 45
Thr Leu Ala Ser Asp His Ala Cys Pro Gly Asp Lys Ser Glu Gly
50 55 60

<210> 32680
<211> 294
<212> PRT
<213> A.fumigatus

<400> 32680
His His Pro Thr Pro Val Leu Thr Cys Leu Ile Asn Gln Pro Arg Thr
1 5 10 15
Thr Ser Pro Glu Lys Phe Ile Pro Arg Phe Thr Lys Thr Arg Pro Ile
20 25 30
Pro Ser Ser Pro Leu Pro Ser Pro Arg Leu Gln Pro His Pro Val Arg
35 40 45
His His Phe His Asp Glu Leu Leu Pro Tyr Glu Thr Ala Ala Leu Gly
50 55 60
Thr Ile Ser Pro Phe Cys Thr Leu Phe Thr Glu Gln Glu Trp His Asp
65 70 75 80
Tyr Ala Tyr Asn Val Asp Leu Gln Phe Tyr Gly Asn Tyr Gly Leu Gly
85 90 95
Ala Pro Ser Gly Arg Ala Gln Gly Ile Gly Tyr Val Leu Glu Leu Ala
100 105 110
Ser Arg Leu Ala Gly Arg Leu Ile Pro Thr Ser Asp Thr Ser Ile Asn
115 120 125
Ser Thr Tyr Asp Asn Asn Ala Ala Gln Phe Pro Leu His Gln Pro Leu
130 135 140
Tyr Met Asp Met Ser His Asp Asp Val Ile Val Ala Val Leu Ala Ala
145 150 155 160
Leu Gly Leu Glu Tyr Phe Lys Tyr Gly Glu Asp Gly Leu Pro Asp Glu
165 170 175
Ile Glu His Ala Leu Glu Arg Thr Phe Arg Leu Asn Glu Ile Val Pro
180 185 190
Phe Gly Ala Arg Leu Val Ser Glu Val Trp Thr Cys Pro Ala Gly Pro
195 200 205
Lys Met Arg Phe Lys Glu Leu Asp Ala Thr Leu Tyr Thr Asn Pro Ser
210 215 220
Val Arg Gly Thr Asp Phe Ile Arg Phe Val Leu Asn Gly Ala Pro Leu
225 230 235 240
Pro Thr Gln Gly Leu Val Gly Cys Glu Arg Ala Glu Asn Gly Phe Cys
245 250 255
Ala Leu Thr Asp Phe Leu Gly Gly Val Ala Lys Leu Lys Glu Lys Ala
260 265 270

```
Met Tyr Gln Val Ala Cys Phe Gly Asn Tyr Thr Thr Gly His Gln Val
        275                 280                 285
Gly Asp Gly Arg Pro Glu
    290
```

<210> 32681
<211> 124
<212> PRT
<213> A.fumigatus

<400> 32681

```
Arg Leu Glu Tyr Leu Pro Arg Tyr Leu Phe Ser Tyr Cys Ile Asp Ser
1               5                  10                  15
Tyr Arg Lys Gln Cys Val Ile Asp Asp Glu Val Ala Leu Leu Asp Val
            20                  25                  30
Leu Asp Thr Ala Gly Gln Glu Glu Tyr Ser Ala Met Arg Glu Gln Tyr
        35                  40                  45
Met Arg Thr Gly Glu Gly Phe Leu Leu Val Tyr Ser Ile Thr Ser Arg
    50                  55                  60
Gln Ser Phe Glu Glu Ile Met Thr Phe Gln Gln Gln Ile Leu Arg Val
65                  70                  75                  80
Lys Asp Lys Asp Tyr Phe Pro Ile Ile Val Val Gly Asn Lys Cys Asp
                85                  90                  95
Leu Glu Lys Glu Arg Ala Val Ser Gln Gln Gly Arg Arg Thr Ser Arg
            100                 105                 110
Arg Phe Ser Leu Ser Gln Pro Trp Gln Tyr Ser Tyr
        115                 120
```

<210> 32682
<211> 84
<212> PRT
<213> A.fumigatus

<400> 32682

```
Ala Ile Cys Tyr Ala Glu Gly Glu Ala Leu Ala Arg Gln Phe Gly Cys
1               5                  10                  15
Lys Phe Ile Glu Thr Ser Ala Lys Ser Arg Ile Asn Val Glu Asn Ala
            20                  25                  30
Phe Tyr Asp Leu Val Arg Glu Ile Arg Arg Tyr Asn Lys Glu Met Ser
        35                  40                  45
Ser Tyr Pro Ser Gly Ser Gly Ala Ala Gly Thr Arg Ala Pro Glu Gly
    50                  55                  60
Lys Met Asp Val Ser Glu Pro Gly Asp Asn Ala Gly Cys Cys Gly Lys
65                  70                  75                  80
Cys Val Ile Met
```

<210> 32683
<211> 67
<212> PRT
<213> A.fumigatus

<400> 32683

```
Thr Ile Cys Ser Glu Gln Ala Leu Leu Gln Glu Asp Tyr Asp Phe Asn
1               5                  10                  15
Leu Ser Phe Cys Phe Leu Ala Cys Asp Ser Thr Trp Met Leu Phe Leu
```

```
            20                  25                  30
Leu Phe Phe Leu Glu Gly Val Phe Ser Ile Leu Asn Ser Cys Ile Tyr
        35                  40                  45
Pro Cys Arg Leu Leu Phe Leu Phe Ser Arg Pro Glu Lys Lys Ala Tyr
    50                  55                  60
Ile Val Leu
65
```

<210> 32684
<211> 318
<212> PRT
<213> A.fumigatus

<400> 32684

```
Val Ser Trp Ser Gly Leu Pro Ala Ala Gly Gly Leu Ile Trp Ile Val
1               5                   10                  15
Val Phe Leu Ser Ala Tyr Leu Ala Ile Leu Val Thr Phe Pro Cys Gly
            20                  25                  30
Arg Leu Met Glu Ala Val Leu Pro Glu Arg Lys Trp Lys Ile Leu Arg
        35                  40                  45
Trp Thr Phe Thr Leu Asn Pro Gly Arg Phe Asn Gln Lys Glu His Cys
    50                  55                  60
Ile Val Ala Ile Met Ala Ser Leu Val Thr Ala Phe Asp Asn Gly Ser
65                  70                  75                  80
Leu Ala Thr Asp Val Tyr Val Ala Phe Glu Lys Phe Leu His Val Pro
                85                  90                  95
Ile Ser Leu Gly Tyr Arg Phe Met Phe Leu Leu Thr Thr Gln Ala Leu
            100                 105                 110
Ser Phe Gly Ile Ala Gly Leu Phe His Lys Phe Phe Val Glu Pro Glu
        115                 120                 125
Ala Cys Val Trp Pro Gly Val Leu Pro Thr Cys Ser Met Leu Tyr Thr
    130                 135                 140
Met His Gln Arg Asn Lys Gln Asn Glu Glu Thr Asn Gly Trp Lys Ile
145                 150                 155                 160
Ser Arg Met Lys Leu Phe Ala Val Val Ile Leu Cys Gly Thr Leu Tyr
                165                 170                 175
Gln Phe Leu Pro Gly Phe Leu Phe Thr Gly Leu Thr Thr Phe Ala Trp
            180                 185                 190
Ile Thr Trp Ile Phe Pro Asn Asn Val Thr Ile Asn Gln Val Phe Gly
        195                 200                 205
Ala Ile Ser Gly Met Asp Leu Leu Pro Met Thr Leu Asp Trp Asn Gln
    210                 215                 220
Val Thr Gly Tyr Leu Gly Ser Pro Leu Leu Val Pro Thr Trp Ala Leu
225                 230                 235                 240
Thr Asn Val Phe Cys Gly Ser Ile Phe Phe Leu Trp Val Val Ser Pro
                245                 250                 255
Ala Leu His Trp Ser Asn Val Trp Glu Gly Met Tyr Met Pro Phe Ser
            260                 265                 270
Ser Ser Lys Thr Phe Asp Asn Thr Gly Arg Val Ile Leu Asp Thr Ser
        275                 280                 285
Leu Arg Ser Tyr Leu Thr His Ser Arg Gln Ala Ile Gln His Gln Ser
    290                 295                 300
Ser Asp Glu Leu Arg Leu Phe Thr Lys Ser Asp Cys Leu Ser
305                 310                 315
```

<210> 32685

<211> 78
<212> PRT
<213> A.fumigatus

<400> 32685
Arg Leu Phe Thr Pro Tyr Lys Leu Phe Gln Ser Ile Asn Ile Asp Leu
1 5 10 15
Arg Ser Val Ser Pro Glu Val Arg Ala Ser Val Pro Ala Asp Asp Glu
20 25 30
Asp Ile Pro Val Asn Thr Phe Arg Ala Trp Phe Leu Gly Ile Val Gly
35 40 45
Thr Val Val Leu Thr Ala Leu Asn Gln Phe Phe Gln Phe His Ser Pro
50 55 60
Pro Arg Glu Cys Leu Gly Gln Gly Tyr Gln Gln Gln Glu Gly
65 70 75

<210> 32686
<211> 95
<212> PRT
<213> A.fumigatus

<400> 32686
His Ile Gln Gly Lys Pro Tyr Asn Thr Ser Arg Val Met Asn Ser Asp
1 5 10 15
Tyr Ser Leu Asn Gln Thr Ala Tyr His Asp Tyr Ser Pro Val Phe Leu
20 25 30
Ser Thr Thr Ser Val Leu Ser Tyr Gly Leu Gly Phe Ala Ala Val Ala
35 40 45
Ser Ile Ile Val His Thr Ala Leu Tyr His His Arg Glu Ile Trp Tyr
50 55 60
Gly Leu Leu Ala Ser Ile Gly Lys Ser Ser Gly Glu Glu Lys Pro Asp
65 70 75 80
Ile His Ala Arg Val Ser Thr Thr Thr Pro Val Gly Asn Thr His
85 90 95

<210> 32687
<211> 129
<212> PRT
<213> A.fumigatus

<400> 32687
Pro Lys Gln Leu Met Lys Lys Tyr Lys Gln Val Pro Thr Trp Trp Tyr
1 5 10 15
Gly Cys Thr Phe Leu Gly Ile Phe Ser Ile Ser Ile Ala Phe Leu Tyr
20 25 30
Ala Tyr Asp Thr Gly Leu Pro Trp His Gly Leu Ile Leu Ala Ile Thr
35 40 45
Leu His Val Ile Leu Leu Leu Pro Thr Gly Ile Met Met Ala Tyr Cys
50 55 60
Asn Ile Lys Leu Ser Thr Ala Val Ile Ser Ala Leu Val Ala Gly Tyr
65 70 75 80
Ile Trp Pro Gly Lys Met Met Asn Asn Val Val Phe Lys Ile Phe Thr
85 90 95
Leu Val Ser Ser Ala Gln Gly Leu Gly Tyr Ile Ser Val Met Lys Leu
100 105 110
Ala His Tyr Met Val Ser Leu Pro Phe Lys Pro Glu Glu Gln Gly Phe

115 120 125
Leu

<210> 32688
<211> 79
<212> PRT
<213> A.fumigatus

<400> 32688
Gln Phe Leu Cys Pro Leu Ala Ala Gly Tyr Ala Thr Asn Ala Thr Phe
1 5 10 15
Trp Gly Leu Ile Gly Pro Lys Arg Leu Phe Ser Glu Gly Ser Met Tyr
20 25 30
Arg Pro Met Leu Trp Phe Phe Phe Ile Gly Ala Ala Ser Pro Leu Val
35 40 45
Leu Tyr Leu Leu Asp Arg Arg Phe Pro Arg Ala Met Leu Arg Lys Val
50 55 60
Pro Thr Asp Arg Thr Thr Tyr Asn Val Tyr Val Thr Glu Cys Asn
65 70 75

<210> 32689
<211> 110
<212> PRT
<213> A.fumigatus

<400> 32689
Ile His Leu Pro Ala Ile Phe Ala Ser Thr Ala Ser Ile Pro Pro Ala
1 5 10 15
Thr Ala Ala Asn Tyr Met Ala Trp Gly Ile Val Gly Leu Tyr Phe Asn
20 25 30
Gly His Leu Lys His Arg Tyr Arg Pro Trp Trp Met Lys Tyr Asn Tyr
35 40 45
Ile Leu Ser Ala Gly Leu Asp Ala Ala Leu Ala Val Gly Asn Phe Leu
50 55 60
Ile Phe Phe Cys Leu Ala Tyr Pro Gly Ile Glu Leu Lys Trp Phe Gly
65 70 75 80
Asn Asp Ile Ala Ala Arg Thr Ala Asp Gly Leu Gly Val Pro Leu Arg
85 90 95
Thr Val Glu Arg Gly Gln Thr Phe Gly Pro Arg Asn Trp Asn
100 105 110

<210> 32690
<211> 146
<212> PRT
<213> A.fumigatus

<400> 32690
His Val Ser Arg Tyr Ser Val Pro Ser Ala Asp Ser Phe Met Met Gly
1 5 10 15
Ile Met Asp Asp Glu Leu Asp Ile Asp Thr Ala His Thr Lys Glu Asp
20 25 30
Lys Asp Thr Ala Ile Arg Ala Lys Ala Ser Lys Thr Trp Arg Ile Leu
35 40 45
Arg Leu Ser Ala Lys Gly Lys Leu Ala Ala Phe Asp Lys Ile Asp Asp
50 55 60

```
Gly Lys Asn Leu Lys Ala Leu Phe Glu Ala Pro Gln Pro Leu Glu Ser
65                  70                  75                  80
Thr Thr Pro Ala His Glu Pro Ala Ser Gln Ala Ser Glu Pro Ala Ala
                85                  90                  95
Lys Ala Ser Gly Asp Ala Gly Pro Glu Ala Asn Ala Ser Gly Gln Glu
            100                 105                 110
Glu Gln Pro Val Asp Arg Asn Thr Thr Ala Val Ser Glu Gln Thr Pro
        115                 120                 125
Gly Asp Leu Asn Asp Asn Asn Gln Glu Ala Val Thr Gly Ala Pro Gln
    130                 135                 140
Ala Thr
145
```

<210> 32691
<211> 376
<212> PRT
<213> A.fumigatus

<400> 32691

```
Val Lys Tyr Gly Val Gln Ile Thr Asn Asn Leu Phe Ser Leu Leu Val
1               5                  10                  15
Asp Pro Asp Leu Ile Phe Leu Ala Phe Leu Asn Ile Pro Leu Val Leu
            20                  25                  30
Gln Lys Asp Ala Val Arg Leu His Val Thr Leu Arg Pro Gly Ser Val
        35                  40                  45
Leu Ile Ser Ser Thr Arg Phe Ser Asp Lys Asn Leu Glu Glu Phe Gln
    50                  55                  60
Thr Leu Arg Tyr Asn Cys Arg Gln Val Ile Pro Val Phe Ser Gln Pro
65                  70                  75                  80
Phe Pro Asp Thr Arg Thr Val Lys Met Asp Asn Ala His Asp Leu Gln
                85                  90                  95
Ala Ser Thr Gln Asn Ser Thr Val Asp Leu Lys Tyr Asp Cys Asp Glu
            100                 105                 110
Glu Asn Ile Gln Gln Ala Asp Val Asn Ser Ser Leu Ser Ala Ala Val
        115                 120                 125
Thr Asp Ser Leu Glu His Val Leu Pro Arg Asp Arg Glu Met Lys Thr
    130                 135                 140
Pro Thr Tyr Asp Tyr Ala Tyr Glu Lys Ser Met Ser His Thr Glu Ala
145                 150                 155                 160
Lys Leu Phe Tyr Gln His His Gln Leu Val Ser Arg Gly Ala Asp Ser
                165                 170                 175
Glu Ser Asp Gln Gly Ser Gly Leu Ser Gly Arg Arg Ser Ala Ser Gly
            180                 185                 190
Ile Leu Ser Thr Lys Ala Gln Thr Glu Gly Lys Pro Gln Thr Gly Ile
        195                 200                 205
Leu Gly Ser Ser Asn Ser Thr Gln Leu Gly Pro Pro Thr Ser Gly Tyr
    210                 215                 220
Ala Glu Asn Ile Ser Thr Ser Ala Gly Gln Arg Pro Leu Arg Asp Asp
225                 230                 235                 240
Ala Met His His Glu Asn Leu Asn Glu Gln Gly Ser Ser Tyr Met Gln
                245                 250                 255
Phe Thr Thr Glu Val Pro Gly Ala Val Lys Ser Ala Met Asn Met Thr
            260                 265                 270
Gly Ser Gly Thr Val Ala Ser Glu Leu Asn Val Ile Tyr Arg Lys Ile
        275                 280                 285
Arg Gly Leu Leu Glu Arg Arg Ala Glu Tyr Ile Arg Leu Ser Ser Gln
```

```
    290                 295                 300
Gly Pro Gly Asp Asn Pro Lys Asp Arg Pro Asp Trp Arg Ile Tyr Pro
305                 310                 315                 320
Pro Pro Pro Glu Pro Ala Trp Asp Ala Asp Gly Glu Asn Gly Asn Gln
                325                 330                 335
Gly Ser Ser Ala Gly Ala Gly Thr Lys Lys Arg Lys Met Gly Gln Asp
            340                 345                 350
Ile Gly Glu Asp Phe Asp Met Ala Glu Leu Ile Pro Leu Pro Gly Arg
        355                 360                 365
Val Lys Leu Asp Ile Gln Ile Gly
    370                 375
```

<210> 32692
<211> 210
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (165)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32692

```
Tyr Ala Gly Tyr Ala Cys Met Tyr His Ser His Lys Ser Leu Ser Ile
1               5                   10                  15
Thr Leu Leu Leu Ile Asn Leu Gln Ala His Thr Asp Ser Phe His Arg
            20                  25                  30
Phe Asp Lys Phe Asn Leu Lys Tyr Asn Pro Val Gly Glu Ser Arg Leu
        35                  40                  45
Arg Glu Ile Phe Leu Lys Thr Asp Asn Tyr Ile Lys Gly Arg Tyr Leu
    50                  55                  60
Ala Glu Ile Thr Lys Glu Val Ile Ser Asp Leu Glu Ser Ser Lys Tyr
65                  70                  75                  80
Gln Met Val Glu Trp Arg Ile Ser Ile Tyr Gly Arg Ser Ile Gln Glu
                85                  90                  95
Trp Asp Lys Leu Ala Ala Trp Val Val Asp Asn Lys Leu Phe Ser Pro
            100                 105                 110
Asn Val Arg Trp Leu Ile Gln Val Pro Arg Leu Tyr Asp Val Tyr Lys
        115                 120                 125
Ala Ser Gly Met Met Glu Asn Phe Glu Gln Val Ile Thr Asn Val Phe
    130                 135                 140
Gln Pro Leu Phe Glu Val Thr Lys Asn Pro Ser Ser His Pro Lys Leu
145                 150                 155                 160
His Ile Phe Leu Xaa Arg Val Val Gly Phe Asp Ser Val Asp Asp Glu
                165                 170                 175
Ser Lys Ala Glu Arg Arg Leu Tyr Lys Lys Tyr Pro Ile Pro Arg Glu
            180                 185                 190
Trp Asn Thr Arg Gln Asn Pro Pro Tyr Ser Tyr Trp Asp Leu Leu His
        195                 200                 205
Val Arg
    210
```

<210> 32693
<211> 176
<212> PRT
<213> A.fumigatus

<400> 32693
Ser Arg Ser Arg Gly Glu Ser Ser Trp Thr Phe Lys Leu Asp Glu Asn
1 5 10 15
Ser Val Tyr Gln Val Tyr Glu Asn Leu Glu Ala Ala Asn Ala Asn Lys
20 25 30
Pro Thr Ile Arg Ile Pro Ser Leu Arg Asp Phe Tyr Met Asp Leu Asp
35 40 45
Ala Val Ile Asp Val Ser Thr Asp Gly Pro Ala Lys Ser Phe Ala Phe
50 55 60
Lys Arg Leu Ser Tyr Leu Glu Gly Lys Phe Gln Leu Tyr Thr Leu Leu
65 70 75 80
Asn Glu Tyr Gln Glu Ile Ala Asp Ser Lys Lys Val Pro His Arg Asp
85 90 95
Phe Tyr Asn Val Arg Lys Val Asp Thr His Val His His Ser Ala Cys
100 105 110
Met Asn Gln Lys His Leu Leu Arg Phe Ile Lys Ser Lys Met Lys Lys
115 120 125
Ser Pro Asp Glu Val Val Leu Phe Arg Asp Gly Lys His Leu Thr Leu
130 135 140
Arg Glu Val Phe Glu Ser Ile Asn Leu Thr Ala Tyr Asp Leu Ser Ile
145 150 155 160
Asp Thr Leu Asp Met His Val Cys Ile Ile Pro Thr Ser Leu Phe Leu
165 170 175

<210> 32694
<211> 378
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (4)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32694
Tyr Gly Pro Xaa Arg Ser Val Leu Lys Thr Arg Arg Leu Glu Ala Asp
1 5 10 15
Gly Phe Ala Ile Pro Ser Leu Pro Ile Asp Pro Ala Leu Thr Thr Ala
20 25 30
Asp Ser Gly Arg Arg Arg Ala Ser Val Thr Ser Val Leu Asn Lys Val
35 40 45
Val Ser Glu Val Gly Glu Glu Ala Ala Ile Ala Lys Ser Ala Arg Pro
50 55 60
Ala Ala Pro Lys Arg Pro Lys Leu Pro Pro Pro Thr Pro Glu Gln Ile
65 70 75 80
Ala Ser Glu Glu Ala Leu Glu Asn Glu Met Thr Ala Leu Leu Ser Lys
85 90 95
Gly Ser Asn Met Ile Glu Ser Val Ala Ser Gly Arg Glu Gln Glu Asn
100 105 110
Lys Val Ser Asp Arg Ala Glu Ile Asp Ala Ser Glu Phe Glu Asp Asp
115 120 125
Pro Glu Val Ala Asn Cys Leu Leu Ser Pro Ala Glu Val Glu Ile Lys
130 135 140
Glu Arg Ile Trp Val His Glu Asn Lys Asp Tyr Leu Arg Thr Gln Gln
145 150 155 160

```
Ala Lys Ala Leu Lys Arg Ala Leu Ala Glu Ala Asp Ser Gln Pro Gly
                165                 170                 175
Met Arg Lys Pro Arg Lys Arg Arg Arg Gly Arg Leu Gly Asp Val Thr
            180                 185                 190
Tyr Leu Glu Gly Asp Gly Glu Asp Ala Asp Gly Arg Ser Thr Arg Ala
        195                 200                 205
Ser Thr Pro Ala Glu Ala Thr Arg Arg Met Leu Glu Arg Arg Gly Phe
    210                 215                 220
Ser Lys Lys Ile Asn Tyr Arg Leu Leu Glu Ser Leu Phe Gly Asp Glu
225                 230                 235                 240
Gly Ala Asp Glu Ala Ala Lys Ala Lys Ala Glu Ser Met Ser Arg Ser
                245                 250                 255
Arg Ser Arg Ser Gln Ser Val Ala Ser Arg Arg Ser Ala Ser Val Glu
            260                 265                 270
Pro Arg Ala Ile Ser Leu Ala Thr Ala Lys Pro Ala Ala Ser Pro Ala
        275                 280                 285
Pro Pro Arg Arg Ser Thr Gln Phe Pro Gly Glu Lys Pro Leu Gln Pro
    290                 295                 300
Gly Val Gln Val Gly Lys Ile Asp Ser Ala His Thr Asn Glu Glu Val
305                 310                 315                 320
Leu Gly Pro Ala Pro Glu Ser Gly Lys Ile Pro Glu Glu Glu Met Asp
                325                 330                 335
Asp Tyr Asp Asp Asp Glu Glu Glu Glu Glu Glu Asp Asp Tyr Glu Glu
            340                 345                 350
Asp Pro Asp Gly Val Glu Ala Ala Phe Ala Gly Gln Tyr Gly Asp Tyr
        355                 360                 365
Tyr Asp Asp Glu Ser Asp Tyr Gly Ser Asp
    370                 375
```

<210> 32695
<211> 72
<212> PRT
<213> A.fumigatus

<400> 32695

```
Arg Asn Leu Ile His Ser Leu Gln Leu Phe Trp Asn Val Ser Thr Met
1               5                   10                  15
Ala Asp Thr Gln Lys Val Asp Gln Pro Val Phe Tyr Arg Val Val Gly
            20                  25                  30
Thr Val Pro Tyr Ser Asp Tyr Ser Gly Lys Ala Pro Arg Gln Val Tyr
        35                  40                  45
Arg Ser Leu Asp Ile Gln Cys Val Gly Arg Trp Ser Pro Val Gly Lys
    50                  55                  60
Tyr Leu Pro Lys Val Gly Ser Arg
65                  70
```

<210> 32696
<211> 101
<212> PRT
<213> A.fumigatus

<400> 32696

```
His Val Arg Gln Ile Gly Gly Arg Cys Gly Arg Val Ser Gln Asp Leu
1               5                   10                  15
Leu Asn Val Ser Ile Pro Pro Val Ala Leu Trp Asp Gly Ser His Met
            20                  25                  30
```

```
Glu Phe His Ser Pro Leu Glu Ile Tyr Ser Phe Val Leu Ser Ser Cys
        35                  40                  45
Gly Ala Ala Met Ile Gly Glu Asp Ser Gln Thr Glu Ser Gly Pro Pro
    50                  55                  60
His Leu Ser Phe Asn Leu Val Ser His Ser Thr Val Lys Val Lys Lys
65                  70                  75                  80
Val Gly Lys Ile Ser Thr Ser Thr Asp Ile Asp Thr Arg Ala Ile Glu
                85                  90                  95
Tyr Ser Ser Arg Ser
            100
```

<210> 32697
<211> 65
<212> PRT
<213> A.fumigatus

<400> 32697

```
Arg Ser Pro Val Leu Lys Gly Phe Ser Ile Pro Leu His Leu Asp Leu
1               5                   10                  15
Val Gly Phe Ser Ser Pro Phe Phe Phe Ile Lys Arg Ala Gln Ser Val
            20                  25                  30
Gly Thr Lys Cys Phe Gln Cys Phe Arg Phe Thr Ser Val Trp Val Phe
        35                  40                  45
Ser Met Leu Leu Thr Leu Asp Gly Gly Leu Ala Tyr Ile Phe Leu Gly
    50                  55                  60
Phe
65
```

<210> 32698
<211> 90
<212> PRT
<213> A.fumigatus

<400> 32698

```
Arg Glu Lys Phe Ser Ile His Ala Glu Ile Tyr Ala Thr Ser Thr Ala
1               5                   10                  15
Asn Leu Gln Pro Pro Leu Asp Glu Asn Ala Leu Leu Gln Glu Leu Val
            20                  25                  30
Ala Gln Phe Leu Thr His Glu Gly Tyr Val Asp Thr Ala Arg Ala Phe
        35                  40                  45
Ser Glu Glu Val Ala Ala Glu Ser Ala Ala Leu Glu Asn Gly Arg Lys
    50                  55                  60
Glu Ser Leu Thr Lys Tyr Glu Ala Gly Glu Gly Leu Asp Ala Ile Asn
65                  70                  75                  80
Arg Gln Ser Lys Ile Thr Pro Ala Phe His
                85                  90
```

<210> 32699
<211> 244
<212> PRT
<213> A.fumigatus

<400> 32699

```
Ala Ser Leu Thr Ser Leu Arg Val Glu Ile Arg Ala Ala Ile Leu Glu
1               5                   10                  15
Gly Asp Ile Asp Lys Ala Leu Lys Tyr Thr Asn Ala Tyr Tyr Gly Asn
```

```
            20                  25                  30
Val Leu Glu Ser Tyr Pro His Ile Gln Phe Lys Leu Arg Cys Arg Lys
        35                  40                  45
Phe Leu Glu Met Met Arg Arg Cys Asn Glu Leu Ser Ser Ala Ala Ser
    50                  55                  60
Lys Lys Gly Lys Ala Ser Asn Gly Leu Ser Asp Gly Ser Ala Val Phe
65                  70                  75                  80
Asp Gln Glu Met Glu Leu Asp Glu Gln Leu Gln Glu Gly Asp Gly Trp
                85                  90                  95
Asp Thr Glu Gly Met Asp Thr Glu Glu Ser Glu Asn Ser Gly Lys Phe
            100                 105                 110
His Glu Leu Leu Thr Glu Ala Val Gln Tyr Gly Gln Gln Leu Arg Met
        115                 120                 125
Asp Tyr Pro Asn Asp Glu Arg Gly Gly Asp Lys Lys Val Leu Asp Asp
    130                 135                 140
Ile Phe Ser Leu Val Ala Tyr Gln Asp Pro Lys Arg Ser Val His Gly
145                 150                 155                 160
His Tyr Leu Asp Pro Ala Gly Arg Val Ala Ile Ala Glu Glu Leu Asn
                165                 170                 175
Ser Ala Ile Leu Gly Gln Leu Cys Phe Ser Arg Val Leu Gln Cys Ser
            180                 185                 190
Gln Leu Leu Thr Leu Ile Leu Leu Leu Val Ser Leu Gly Lys Pro Ser
        195                 200                 205
Ser Ala Ala Leu Glu Arg Leu Tyr Gln Gln Thr Glu Val Leu Val Asn
    210                 215                 220
Glu Ile Ser Glu Glu Gly Gly Ala Gly Ala Phe Ile Asn Val Arg Asn
225                 230                 235                 240
Asp Phe Leu Leu
```

<210> 32700
<211> 110
<212> PRT
<213> A.fumigatus

<400> 32700

```
Met Glu Leu Val Arg Glu Ser Cys Pro Ile Leu Pro Lys Met Ala Phe
1               5                   10                  15
Lys Asn Gly Leu Ser Glu Arg Leu Asp Glu Leu Arg Phe Pro Ser Pro
            20                  25                  30
Arg Ser Pro Pro Ser Glu Ser Ala Phe Pro Gly Tyr Asn Ser Leu Ser
        35                  40                  45
Pro Gly His Thr Ser Phe Val Ser Ala Phe Pro Arg Ser Ser Gly Asp
    50                  55                  60
Val Arg Ala Asn Leu Gln Arg Arg Phe Thr Thr Asp Ser Ser Lys Leu
65                  70                  75                  80
Ser Ser Trp Ser Tyr Leu Asn Gln Val Gly Gly Pro Ser Gln Val Ala
                85                  90                  95
Asp Pro Leu Asp Leu Leu Ser Ser Val Ser Phe Pro Tyr Gln
            100                 105                 110
```

<210> 32701
<211> 151
<212> PRT
<213> A.fumigatus

<400> 32701
Pro Asn Pro Pro Ala Cys Leu Leu Ala Ala Ala Ser Cys Glu Ile His
1 5 10 15
Ser Pro Asn His His Leu Ser Tyr Arg Phe Pro Thr Tyr Asn Gln Lys
20 25 30
Ala Asn Met Ser His Lys Pro Gly Gly Tyr Phe Tyr Tyr Arg Tyr Thr
35 40 45
Tyr Met Cys Pro Trp Thr Asp Thr Ala Gly Gln Ser Gly Thr Asp Asn
50 55 60
Thr Tyr His Ser Ala Val Tyr Thr Pro Val Arg Lys Gln Asp His Thr
65 70 75 80
Ala Gln Thr Ser Trp Tyr Asn Asn Thr Ala Met Pro Ala Val Lys Ala
85 90 95
Asp Ile Glu Lys Asn Phe Tyr Gly Asp Ala Asp Arg Asn Lys Gln Gly
100 105 110
Arg Thr Tyr Glu Arg Tyr Asn Gln Gln Tyr Val Arg Gln Glu Gln Phe
115 120 125
Met Trp Cys Ser Lys Leu Pro Thr His Thr Ser Glu Gly Trp Glu Thr
130 135 140
Val Pro Phe Gly Lys Gln Ile
145 150

<210> 32702
<211> 293
<212> PRT
<213> A.fumigatus

<400> 32702
Arg Val Lys Gln Thr Arg Asp Gly Ile Thr Lys Ser Asp Glu Ile Ser
1 5 10 15
Thr Arg Leu His Thr Leu Ser Asp Leu Ala Gln Ala Thr Ile Arg Arg
20 25 30
Phe Ala Asp Ile Tyr Ser Gln Gln Arg Arg Phe Gly Gly Gly Thr Gly
35 40 45
Ala Ala Ser Ile Leu Gln Thr Tyr Pro Gly Lys Val Gly Val Pro Ser
50 55 60
Ser Ile Phe Ala Arg Met Asn Ser His Glu Glu Ala Gln Glu Val Ala
65 70 75 80
Glu Lys Asn Phe Leu Pro Glu Asp Ala Glu Asp Leu Leu Asp Arg Leu
85 90 95
Val Arg Ala Val Met Lys Ala Lys Asn Gly Ser Thr Ser Ser Ala Gln
100 105 110
Val Lys Lys Arg Lys Pro Glu Ala Ala Glu Met Asn Gly Asn Asn Gly
115 120 125
Ser Ala Lys Lys Ala Arg Lys Glu Lys Glu Lys Thr Ser Arg Pro Arg
130 135 140
Arg Ser Ser Ala Gly Thr Thr Ser Lys Thr Pro Lys Lys Lys Lys Lys
145 150 155 160
Gly Glu Asp Gly Trp Ser Ser Asp Glu Glu Gly Ala Pro Ala Glu Val
165 170 175
Thr Thr Ser Ala Arg Arg Arg Ser Ser Arg Gly Thr Ser Lys Arg Val
180 185 190
Ser Tyr Val Asp Lys Asp Ser Asp Glu Asp Asp Met Glu Val Asp Glu
195 200 205
Trp Gly Gln Glu Asn Asp Glu Gln Glu Asp Asn Ala Asp Asp Ala Glu
210 215 220

```
Ser Glu Asn Gly Ser Asp Ala Ala Glu Glu Lys Val Asp Asp Asp Ser
225                 230                 235                 240
Asp Ser Glu Glu Gln Leu Ser Glu Ala Glu Glu Leu Glu Asp Pro Glu
                245                 250                 255
Asp Ser Ser Glu Pro Ala Val Ala Lys Ser Glu Lys Glu Lys Pro Glu
            260                 265                 270
Ala Lys Asn Lys Arg Ser Glu Lys Thr Ala Thr Leu Pro Thr Arg Arg
        275                 280                 285
Ser Ser Arg Arg Gly
    290
```

<210> 32703
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32703

```
Lys Asp Asn Pro Gly Val Asp Ala Cys Tyr Leu Ile Asn His Glu Ile
1               5                   10                  15
Phe Gln Ser Thr Glu Ser Thr His Ile Ile Gln Arg Ser Arg Leu Ile
            20                  25                  30
Phe Phe Phe Leu Asn Leu Leu Phe Trp Ala Glu Lys Thr Ile Tyr Ile
        35                  40                  45
Ala Lys Gln Tyr Cys Lys Leu Tyr Ile Val Pro Gln His Gln
    50                  55                  60
```

<210> 32704
<211> 127
<212> PRT
<213> A.fumigatus

<400> 32704

```
Leu Val Asn Leu Leu Ile Met Leu Leu Thr Ala Leu Gln Ile Lys Glu
1               5                   10                  15
Lys Leu Gln Lys Phe Gln Asp Met His Pro Ser Asp Ala Ala Phe Met
            20                  25                  30
Pro Ile Leu Lys Ser Met Met Ala Asp Leu Glu Lys His Ile Glu Glu
        35                  40                  45
Glu Glu Thr Ile Asp Phe Val Lys Leu Glu Asp Ala Ile Thr Pro Lys
    50                  55                  60
Glu Ser Glu Ser Leu Pro Lys Ser Phe Gly Arg Thr Lys Met Phe Val
65                  70                  75                  80
Pro Thr Arg Ser His Pro Asn Thr Pro Asn Lys Pro Pro Phe Glu Thr
                85                  90                  95
Val Val Gly Leu Leu Ala Ala Pro Ile Asp His Leu Ala Asp Ile Phe
            100                 105                 110
Arg Lys Trp Pro Asp Asp Val Ile Asn Pro Asn Pro Ser Ser Glu
        115                 120                 125
```

<210> 32705
<211> 76
<212> PRT
<213> A.fumigatus

<400> 32705

```
Pro Arg Leu Val Pro Ile Thr Gly Leu Asp Gln Ala Cys Arg Gln Ser
```

```
1               5                   10                  15
Phe Arg Gly Arg Asp Gly Gly Val Ser Gly Ser Val Tyr Met Cys Thr
            20                  25                  30
Leu Tyr Val Phe Arg Pro Val Ser Pro Leu Ser Leu Asn Lys Val Asn
        35                  40                  45
Gly Val Glu Tyr Asn Thr Glu Ala Leu Cys Asp Ser Gly Ser Pro Arg
    50                  55                  60
Thr Val His Ile Leu Leu Ser Phe Trp Gly Tyr Lys
65                  70                  75
```

<210> 32706
<211> 92
<212> PRT
<213> A.fumigatus

<400> 32706

```
Phe Leu Thr Asn Asn Met Ala Arg Leu Met Asp Thr Ile Lys Lys Asp
1               5                   10                  15
His Arg Glu Leu Glu Glu Tyr Tyr Lys Ile Ile Val Ser Ser Arg Asp
            20                  25                  30
Thr Asp Glu Gln Ile Arg Phe Gln Asn Lys Phe Thr Trp Glu Leu Ala
        35                  40                  45
Arg His Ala Ile Gly Glu Glu Leu Val Val Tyr Pro Ala Leu Glu Lys
    50                  55                  60
Tyr Leu Pro Gly Gly Ala Glu Thr Ala Asp Lys Asp Arg Glu Glu His
65                  70                  75                  80
Gln Thr Ala Arg His Cys Ser Asp Leu Ser Ile Phe
                85                  90
```

<210> 32707
<211> 629
<212> PRT
<213> A.fumigatus

<400> 32707

```
Phe Pro Lys Arg Gly Pro Cys Gln Pro Arg Gly Glu Asp Leu Ala Leu
1               5                   10                  15
Tyr Lys Asp Phe Gln Thr Leu Ile Asp Ala Ser Lys Asp Leu Lys Thr
            20                  25                  30
Lys Ile Lys Arg His Lys Arg Lys Leu Gln Tyr Trp Gly Ala Gln Leu
        35                  40                  45
Asn Lys Glu Glu Phe Thr Leu Val Leu Asp Gly Arg Ala Val Lys Phe
    50                  55                  60
Lys Gln Val Pro Glu Asn Thr Arg Asp Asp Met Thr His Thr Pro Ser
65                  70                  75                  80
Glu Asn Ser Pro Leu Cys Pro Thr Asp Leu Pro Val Lys Val Gly Gly
                85                  90                  95
Ala Ser Val Gln Ile His Ser Thr Pro Thr Ser Asp Leu Thr Ala Ser
            100                 105                 110
Arg Asp Asn Thr Gln Gly Asn Gly Gly Leu Pro Pro Ala Ala Ser Met
        115                 120                 125
Glu Pro Leu Ser Thr Gln Ser Glu Ser Ser Ile Asp Ser Asp Glu Thr
    130                 135                 140
Ala Ser Thr Pro Arg Pro Leu Glu Ser Ser Thr Glu Leu Gln Ala Gly
145                 150                 155                 160
Ala Leu Lys Arg Lys Arg Asp Thr Val Thr Asp His Ala Ser Thr Lys
```

```
                 165                 170                 175
Arg Gly Tyr His Gly Thr Arg Ala Asp Asp Gln Leu Ala Gln Pro Val
            180                 185                 190
Leu Ile Lys Ser Glu Ser Met Ser Ser Pro Ile Arg Ile His Leu Asp
        195                 200                 205
His His Val Ala Gly Thr His Asp Leu Asp Asp Val Gly Ser Ala Ile
    210                 215                 220
Glu Thr Pro Thr Lys Arg Lys Ser Tyr Arg Leu Asp Gly Leu Pro His
225                 230                 235                 240
Glu Leu Pro Ser Asp Thr Thr Lys Ser Pro Leu Pro Arg Asn Pro Thr
                245                 250                 255
Ala Leu Gln Leu Asn Arg His Gln Met Glu Pro Thr Arg Leu Ala Pro
            260                 265                 270
Lys Arg Pro Thr Val Leu Gln Ser Val Asp Thr Asn Leu Pro Ser Ala
        275                 280                 285
Asn Cys Arg Arg Ile Trp Leu Glu Gln Lys Gln Ser Asn Lys Pro Glu
    290                 295                 300
Arg Arg Ser Gly Cys Ala Leu Asp Ser Val Ala Glu Asp Gly Asp Glu
305                 310                 315                 320
Ser Leu Lys Leu Val Pro Arg Arg Gly Gln Val Lys Gln Ala Ser Arg
                325                 330                 335
Gly Gln Met Thr Arg Thr Ser Thr Ser Ile Asp Asp Val Leu Ile Arg
            340                 345                 350
Gln Arg Leu Asp Asp Leu Leu Glu Arg Pro Leu Arg Ile Arg His Pro
        355                 360                 365
Leu His Val Gln Asn Lys Asn Gly Asn Ile Ala Glu Ile Gly Pro Asp
    370                 375                 380
Gln Gln Asp Ile Ser Arg Asp Ala Ser Thr Gln Val Ser Gly Arg Val
385                 390                 395                 400
Lys Glu Ala Ser Glu Ser Ser Glu Pro Thr Glu Ser Ala Ile Gly Arg
                405                 410                 415
Pro Ser Ile Ser Ala Gly Asn Arg Glu Lys Ser Lys Ala Ser Pro Gln
            420                 425                 430
Glu Gly Pro Arg Ser His Ser Phe Lys Val Thr Asp Thr Val Thr Ala
        435                 440                 445
His Ser Glu Asp Ala Pro Phe Arg Ala Arg Pro Leu His Gln Leu Gly
    450                 455                 460
Leu Arg His Phe Lys Ile Asn Thr Asn Ala Asn Gln Gly Leu Asp Phe
465                 470                 475                 480
Ala Tyr Asp Thr Val Val Arg Arg Lys Asp Glu Arg Lys Cys Ile Ser
                485                 490                 495
Gly Cys Thr Arg Pro Gly Cys Cys Arg Glu Lys Phe His Ala Met Ala
            500                 505                 510
Arg Leu Gly Cys Pro Pro Thr Thr Thr Asp Gly Ser Asn Asp Gly Glu
        515                 520                 525
Glu Glu Gln Lys Met Leu Glu Asp Tyr Leu Gly Glu Glu Lys Tyr Leu
    530                 535                 540
Leu Asp Gln Leu Ser Ala Glu Glu Arg Gln Ser Leu Leu His Glu Ala
545                 550                 555                 560
Arg Ala Arg Arg Met Ala Asn Leu Tyr Ser Lys His Arg His Asp His
                565                 570                 575
Gln Arg Pro Ser Thr Pro Pro Gly Phe Trp Arg Thr Asp Met Pro Asp
            580                 585                 590
Thr Gln Glu Leu Glu His Asp Arg Glu Val Ala Asn Asn Leu Glu Arg
        595                 600                 605
Glu Lys Val Lys Glu Arg Tyr Arg Glu Ala Met Arg Gly Gly Ile Trp
```

610 615 620
Lys Phe Ala Asp Glu
625

<210> 32708
<211> 559
<212> PRT
<213> A.fumigatus

<400> 32708
Ser Met Asp Ile Leu Phe Ala Gln Gln Ala Leu Asn His Arg Val Arg
1 5 10 15
Leu Ser Pro Phe His Phe Ser Arg Glu Glu His Leu His Gln Tyr Met
20 25 30
Arg Pro Ser Leu Arg Ser Lys Cys Ala Met Thr Leu Arg Asn Arg Lys
35 40 45
Lys Gln Gln Lys Ile Glu Pro Glu Thr Ala Lys Val Gly Trp Cys Leu
50 55 60
His Ile Ile Ser Gln Gln Thr Asn Val Lys Thr Ala Ser Leu Leu Leu
65 70 75 80
Asp Ala Ile Glu Asp Ala Leu Gly Leu Ala Thr Ser Glu Lys Ser Pro
85 90 95
Asp Ile Lys Glu Phe Arg Thr Ser Phe Met Glu Cys Phe Ser Cys Pro
100 105 110
Ser Asn Ser Arg Pro Pro Asn Leu Asp Ala Thr Phe Leu Cys Thr Phe
115 120 125
Asp Ala Val Ser Glu Phe Cys Thr Ser Thr Pro Pro Ser Lys Trp Leu
130 135 140
Val Ile Ser Ile Gly Thr Thr Met Leu Leu Ser Ile Leu Ala Ile Gln
145 150 155 160
Phe Thr Ala Leu Trp Leu Gln Gly Trp Arg Ser Ala Gly Trp Ile Val
165 170 175
Met Phe Ser Gly Tyr Val Gly Ile Ala Leu Gly Ile Ile Cys Ala Gly
180 185 190
Leu Leu Ile His Gly Ser Cys Val Phe Leu Gln Met Gly Ser Arg Asn
195 200 205
Ala Leu Arg Lys Glu Leu Trp Arg Asp Gly Leu Leu Ile Ala Val Lys
210 215 220
Asn Val Asp Ser Met Asp Thr Arg Gly Ser Asn Leu Met Leu Gly Gln
225 230 235 240
Tyr His Thr Gln Asn Phe Glu Ala Ala Phe Leu Arg Asp Leu Asp Met
245 250 255
Lys Gln His Ile Ala Ala Trp Val Val Ala Val Glu Leu Ser Phe Ala
260 265 270
Phe Ile Ala His Tyr Leu Gly Leu Arg Ser Cys Lys Trp Trp Val Ser
275 280 285
Val Gly Glu Leu Gly Val Cys Leu Thr Ala Ala Phe Ala Arg Ser Leu
290 295 300
Thr Lys Asp Arg Gln Gln Arg Tyr Arg Val Val Glu Lys Arg Leu Asp
305 310 315 320
Lys Arg Cys Thr Ser Thr Gly Val Ile Lys Cys Gln Gln Gly Gly Lys
325 330 335
Ile Asn Pro Ser Asn Gln Ser Asn Asn Ala Leu Asp Ile Arg Val Tyr
340 345 350
Ser Pro Ser Leu Phe Thr Gly Gln Pro Met Ser Ala Glu Asn Ile Ser
355 360 365

```
Trp Tyr Ala Ala Lys Leu Cys His Gln Asp Tyr His Thr Thr Ala Thr
    370                 375                 380
Gln Ile Leu Lys Ile Thr Gly Met Leu Ile Lys Ser Thr Lys Met Ala
385                 390                 395                 400
Gly Gln Leu Gly His Arg Ala Met Ile Val Ser Phe Leu Gly Gly Ile
                405                 410                 415
Leu Val Thr Glu Gly Leu Ala Tyr Pro Asn Val Arg Met Cys Ala Gly
            420                 425                 430
Phe Arg Ala Thr Val Ser Gln Leu Ala Ala His Thr Cys Leu Leu Val
        435                 440                 445
Arg Leu Ile Leu Arg Gln Pro Gln Trp Met Thr Met His Pro Glu Phe
    450                 455                 460
Gly Asn Gly Arg Val Pro Leu Gly Ser Val Tyr Ile Pro Pro Ile Asn
465                 470                 475                 480
Ser Ile Val Asp Trp Trp Ala Met Ser Glu Tyr Arg Asn Asp Ala Leu
                485                 490                 495
Asp Leu Gln Lys Asn Leu Leu Trp Ser Phe Thr Leu Val Asn Leu Ala
            500                 505                 510
Phe Tyr Leu Ser Leu Leu Arg Asn His Gly Asp Asp Ile Gln Leu Met
        515                 520                 525
Asp Ala Ile Asn Ala Ala His Gln Gly Ile Asp Met Glu Ala Glu Met
    530                 535                 540
Ile Ala Lys His Leu Val Thr Phe Val Asp Glu Ser Leu Glu Gly
545                 550                 555

<210> 32709
<211> 74
<212> PRT
<213> A.fumigatus

<400> 32709
Ser Gly Ser Asn Tyr Gly Ser Val Trp Gly Leu Trp Ser Leu Ile Arg
1               5                   10                  15
Val Phe Arg Leu Cys Ile Ile Leu Ser Ile Asn His Arg Trp Ser His
            20                  25                  30
Phe Asn Ile Leu Arg Leu Ala Ile Pro Ile Gln Ser Ala Gly Asn Val
        35                  40                  45
Ala Tyr Thr Thr Trp Val Asp Gln Leu Ser Asp Gly Val Leu Leu Phe
    50                  55                  60
Lys Ser Thr Ser Leu Asn Asp Gly Pro Ala
65                  70

<210> 32710
<211> 865
<212> PRT
<213> A.fumigatus

<400> 32710
Ile Arg Ile Ser Arg Ser Phe His Ala Cys Gly Glu Glu Leu Gln Ser
1               5                   10                  15
Glu Arg Asp Lys Phe Glu Ala Ile Ile Gln Lys Leu Gln Ala Lys Tyr
            20                  25                  30
Gln Pro Gln Gln Leu Glu Ile Gly Glu Leu Arg Lys Lys Leu Lys Asp
        35                  40                  45
Thr Glu Ala Lys Leu Glu Glu Val Glu Arg Leu Gln Ala Glu His Glu
    50                  55                  60
```

```
Ser Ile Leu Glu Met Ala Ala Leu Asp Arg Glu Met Ala Glu Glu Thr
65                  70                  75                  80
Ala Asp Ala Phe Lys His Glu Cys Ala Val Leu Arg Ala Arg Val Glu
                85                  90                  95
Glu Leu Glu Leu Glu Leu Glu Val Leu Lys Glu Glu Asn Glu Glu Leu
            100                 105                 110
Gly Gln Val Met Thr Pro Glu Glu Lys Ser Ser His Gly Trp Leu Gln
        115                 120                 125
Met Glu Lys Thr Asn Glu Arg Leu Arg Glu Ala Leu Ile Arg Leu Arg
    130                 135                 140
Asp Met Thr Gln Gln Gln Glu Ser Glu Leu Arg Asp Gln Ile Lys Glu
145                 150                 155                 160
Leu Gln Gln Asp Leu Glu Asp Tyr Ala Val Ile Lys Ser Gln Tyr Glu
                165                 170                 175
Ala Thr Lys Glu Thr Leu Leu Val Ser Glu Asn Asn Val Glu Asp Leu
            180                 185                 190
Lys Gln Gln Leu Glu Thr Ala Leu Gly Ala Glu Glu Met Ile Glu Glu
        195                 200                 205
Leu Ala Asp Lys Asn Met Arg Tyr Gln Glu Glu Ile Asn Glu Leu Lys
    210                 215                 220
Ala Ala Ile Glu Asp Leu Glu Ala Leu Lys Glu Ile Asn Asp Glu Leu
225                 230                 235                 240
Glu Tyr Asn His Ile Glu Thr Glu Lys Gln Leu Gln Glu Glu Leu Asp
                245                 250                 255
Tyr Arg Glu Ser Leu Phe Asn Glu Gln Cys Arg Lys Ile Ser Gln Gln
            260                 265                 270
Asp Glu Val Ile Glu Asp Leu Glu Tyr Ser Leu Val Arg Phe Arg Glu
        275                 280                 285
Leu Val Ser Thr Leu Gln Gly Asp Leu Glu Asp Met Arg Ala Ser Gln
    290                 295                 300
Gln Ile Ser Glu Ala Glu Ala Asn Asp Leu Thr Ala Arg Ser Arg Ala
305                 310                 315                 320
Met Met Asp Leu Asn Met Lys Leu Gln Ala Ser Met Ala Lys Thr Gln
                325                 330                 335
Thr Lys Thr Ile Asp Ile Glu Leu Gly Arg Met Asn Ala Glu Glu Ala
            340                 345                 350
Leu Gln His Leu Ser Ile Leu Lys Leu Tyr Leu Pro Asp Tyr Phe Glu
        355                 360                 365
Gly Glu Arg Asn Ser Ile Leu Ala Leu Leu Arg Phe Lys Arg Val Ser
    370                 375                 380
Phe Lys Ala Ser Leu Met Asn Asn Thr Ile Arg Glu Asn Ile Ser Glu
385                 390                 395                 400
Gln Ala Ser Ile Ala Thr Gly Leu Asp Asp Ile Phe Val Ala Tyr Asp
                405                 410                 415
Val Leu Glu Lys Leu Met Tyr Ile Ser Ser Leu Ser Asp Arg Phe Val
            420                 425                 430
Asn Tyr Ile Ser Ser Cys Ser Thr Glu Asn Phe Glu Ser Val Lys Gly
        435                 440                 445
Ala Leu Phe Glu Met Glu Pro Val Glu Arg Thr Leu Asn Phe Trp Met
    450                 455                 460
Glu Gly Leu Lys Lys Asn Glu Leu Asn Leu Arg Lys Cys Ala Val Glu
465                 470                 475                 480
Leu Gln Arg Ser Ile Ala Leu Leu Ser His Leu Ala Glu Thr Leu Leu
                485                 490                 495
Pro Ser Ser Leu Glu Ala Phe Ala Asp Glu Leu Cys Met Arg Ser Ser
            500                 505                 510
```

```
Leu Thr Gln Ser Tyr Ile Asp His Ala Ala Thr Cys Met Ala Arg Leu
        515                 520                 525
Lys Ala Leu Leu Gln Ser Lys Ile Thr Val Pro Glu Glu Gly Asp Gly
    530                 535                 540
Glu Cys Ser Leu Leu Phe Thr Lys Ala Glu Gly Phe Val Ser Gln Ala
545                 550                 555                 560
Arg Gly Leu Lys Val Ala Leu Gly Lys Val Tyr Arg Thr Leu Glu Asp
                565                 570                 575
Leu Lys Ser Arg Ser Leu Ser Leu Ser Gln Asp Val Ala Gly Pro Phe
            580                 585                 590
Lys Ser Ala Glu Glu Ala Ala Lys Glu Leu Ser Ala Trp Thr Arg Gln
        595                 600                 605
Leu Gly Glu Asn Leu Val Ile Leu Val Ser Asp Glu Ala Arg Thr Glu
    610                 615                 620
Pro Leu Thr Met Glu Glu Ala Ser Lys Thr Met Ser Glu Thr Ser Thr
625                 630                 635                 640
Ala Tyr Cys Leu Pro Ser Glu Gly Ser Glu Asn Lys Asp Thr Met Ser
                645                 650                 655
Leu Leu His Asp Arg Leu Arg Thr Leu Ser Gly Leu Leu Glu Glu Leu
            660                 665                 670
Asp Ala Val Ser Ser Asp Leu Ser Ile Thr Thr Glu Phe Glu Arg Arg
        675                 680                 685
Pro Ala Pro Trp Ile Ala Arg Ala Ala Glu Leu Lys Ser Asn Lys Thr
    690                 695                 700
Lys Ser Pro Asp Ala Asp Glu Glu Ile Arg Arg Leu Lys Asn Glu Ile
705                 710                 715                 720
His Glu Ala Ser Thr Ala Leu Gly Val Lys Asp Lys Thr Ile Glu Glu
                725                 730                 735
Gln Ala Leu Arg Val Glu Leu Val Glu Ser Arg Met Arg Glu Ala Thr
            740                 745                 750
Lys Lys Ala Ser Met Ala Lys Asp Leu Glu Ser Lys Ile Glu Lys Met
        755                 760                 765
Gln Ala Lys Gln Ala Asp Leu Glu Gly Val Ile Glu Thr Gln Arg Lys
    770                 775                 780
Asp Leu Gln Ala Met Glu Ala Glu Arg Glu Glu Leu Lys Asn Arg Leu
785                 790                 795                 800
Glu Arg Val Lys Arg Leu Ser Gly Thr Thr Gly Val Gly Thr Thr Thr
                805                 810                 815
Asp Gly Val Ala Ile Asp Asn Ser Leu Ser Leu Ala Ala Met Arg Glu
            820                 825                 830
Asn Glu Ala Leu Arg Ala Glu Val Ala Ser Leu Gln Ala Ala Val Arg
        835                 840                 845
Phe Leu Arg Glu Glu Asn Arg Arg Ser Asn Met Leu Asp Pro Tyr Ser
    850                 855                 860
Val
865
```

<210> 32711
<211> 66
<212> PRT
<213> A.fumigatus

<400> 32711

```
Pro Thr Tyr Arg Leu Ile Ile Leu Leu Phe Tyr Ile Lys Val Ser Ser
1               5                   10                  15
Ser Leu Ile Gly Met Ala Phe Ser Gly Phe Tyr Tyr Pro Leu Ala Phe
```

```
            20                  25                  30
Phe Ile Lys Tyr Leu Ala Phe Tyr Tyr Leu Ser Arg Ser Tyr Tyr Tyr
        35                  40                  45
Ser Ser Phe Thr Ser Phe Ile Val Leu Leu Asp Leu Val Ile Lys Tyr
    50                  55                  60
Leu Arg
65
```

<210> 32712
<211> 524
<212> PRT
<213> A.fumigatus

<400> 32712

```
Ser Met Pro Lys Met Ser Lys Ala Trp Phe Thr Ile Arg Leu Trp Arg
1               5                   10                  15
Thr Ser Thr Leu Ile Ala Arg Val Arg Arg Thr Ser Arg Lys Gln Val
            20                  25                  30
Lys Ala Ile Arg Arg Gly Pro Ser Ile Ala Ala Ile Ala Gly Thr Pro
        35                  40                  45
Ser Met Ser Cys Thr Leu Ser Cys Gly Cys Cys Ser Pro Gly Glu Leu
    50                  55                  60
Ser Ser Leu Ser Thr Ala Pro His Leu Leu Ala Val Leu Phe Asp Gln
65                  70                  75                  80
Asn Pro Asn Ser Ser Val Val Val Pro Leu Arg Trp Trp Ile Ala Gly
                85                  90                  95
Leu Ile Leu His Arg Tyr Asp Leu Gly Trp Leu Ile Pro Phe Leu Leu
            100                 105                 110
Tyr Leu Cys Ile Thr Leu Arg Leu Leu Thr Leu Tyr Val Pro Val Ser
        115                 120                 125
Ile Val Thr Arg Pro Ala Tyr Trp Val Trp Asp His Thr Ala Arg Pro
    130                 135                 140
Phe Val Arg Leu Ile Pro Glu Lys Leu Arg Ile Pro Gly Ala Ala Leu
145                 150                 155                 160
Leu Thr Ile Ala Val Ile Leu Val Gly Ser Phe Ala Ser Glu Glu Thr
                165                 170                 175
Ala Asp Asn Thr Arg Ala Asn Arg Ala Val Ser Leu Phe Gly Leu Ile
            180                 185                 190
Val Phe Val Phe Ala Leu Trp Leu Ser Ser Arg Asn Arg Lys Lys Ile
        195                 200                 205
Val Trp His Thr Val Ile Val Gly Met Leu Val Gln Phe Ile Val Ala
    210                 215                 220
Leu Phe Val Leu Arg Thr Lys Ala Gly Tyr Asp Ile Phe Asn Phe Val
225                 230                 235                 240
Ser Thr Leu Ala Arg Glu Leu Leu Gly Phe Ala Asp Asp Gly Val Asp
                245                 250                 255
Phe Leu Thr Glu Thr Gly Phe Ala Ser Lys His Ser Trp Phe Leu Val
            260                 265                 270
Thr Val Ile Pro Ala Ile Ile Phe Phe Val Ser Leu Val Gln Leu Leu
        275                 280                 285
Tyr Tyr Ser Gly Val Leu Gln Trp Ala Ile Gly Lys Phe Ala Val Phe
    290                 295                 300
Phe Phe Trp Ser Met Arg Val Ser Gly Ala Glu Ala Val Val Ala Ala
305                 310                 315                 320
Ala Ser Pro Phe Ile Gly Gln Gly Glu Ser Ala Met Leu Ile Lys Pro
                325                 330                 335
```

```
Phe Val Ala His Leu Thr Met Ala Glu Ile His Gln Val Met Cys Ser
            340                 345                 350
Gly Phe Ala Thr Ile Ala Gly Ser Val Leu Val Ala Tyr Ile Gly Met
        355                 360                 365
Gly Val Asn Pro Gln Ala Leu Val Ser Ser Cys Val Met Ser Ile Pro
    370                 375                 380
Ala Ser Leu Ala Ala Ser Lys Leu Arg Trp Pro Glu Glu Glu Glu Thr
385                 390                 395                 400
Leu Thr Ala Gly Arg Val Val Val Pro Glu Asp Glu Glu His Lys Ala
                405                 410                 415
Glu Asn Ala Leu His Ala Phe Ala Asn Gly Ala Trp Leu Gly Ile Lys
            420                 425                 430
Ile Ala Gly Thr Ile Gly Ala Thr Leu Leu Cys Ile Ile Ser Phe Val
        435                 440                 445
Ala Leu Ile Asn Gly Leu Leu Thr Trp Trp Gly Arg Tyr Leu Asn Ile
    450                 455                 460
Asn Asp Pro Pro Leu Thr Leu Asp Leu Ile Leu Gly Tyr Ile Cys Asn
465                 470                 475                 480
Pro Ile Ala Phe Leu Leu Gly Val Ser Arg Asp Gly Asp Leu Leu Arg
                485                 490                 495
Val Gly Lys Leu Ile Gly Val Lys Leu Val Met Val Arg Phe Tyr Pro
            500                 505                 510
Phe Thr Leu Arg Ser Pro Ser Gly Arg Thr Arg His
        515                 520
```

<210> 32713
<211> 97
<212> PRT
<213> A.fumigatus

<400> 32713

```
Ser Asn Tyr Phe Gln Asn Glu Phe Val Ala Tyr Ser Asp Leu Gln Thr
1               5                   10                  15
Lys Pro Glu Tyr Gln Glu Leu Ser Val Arg Ser Arg Ile Ile Val Thr
            20                  25                  30
Tyr Ala Leu Cys Gly Phe Ala Asn Ile Gly Ser Leu Gly Asn Gln Ile
        35                  40                  45
Gly Val Leu Asn Gln Leu Ala Pro Gln Arg Ala Gly Asp Val Ser Arg
    50                  55                  60
Val Ala Val Ser Ala Met Ile Thr Gly Ala Leu Ala Thr Phe Thr Ser
65                  70                  75                  80
Ala Ala Ile Ala Gly Leu Leu Ile Thr Glu Glu Gly Lys Tyr Leu Ser
                85                  90                  95
Gln
```

<210> 32714
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32714

```
Ala Pro Arg Gln Gly Leu Val Gln Lys Arg Lys Gly Thr Tyr Thr Val
1               5                   10                  15
Glu Val Leu Ile Leu Arg Ala Ala Ile Met Tyr Leu Pro Phe Val Glu
            20                  25                  30
```

```
Gln Leu Tyr Pro Ala Trp Asn Leu Asp His Thr Phe Glu Asp Val Gly
        35                  40                  45
Phe Ile Leu Phe His Leu Gly Leu Arg Ile Leu Ser
    50                  55                  60

<210> 32715
<211> 537
<212> PRT
<213> A.fumigatus

<400> 32715
Arg Gln Pro Pro Pro Lys Ser Phe Ser Pro Pro Val Leu Gln Ser Gln
1               5                   10                  15
Ser Val Pro Asn Val Leu Ser Ala His Arg Val Gln Ala Ser Gln Gln
            20                  25                  30
Ala His Tyr Gly Asp Ala Thr Val Ser Ala Ala Leu Thr Glu Pro Phe
        35                  40                  45
Ser Asn Leu Glu Leu Asn Val Asp Asn Asn Ala Lys Ala Pro Lys Val
    50                  55                  60
Ala Pro Gln Thr Glu Lys Pro His Asp Thr Leu Asp Asp Asn Glu Gly
65                  70                  75                  80
Leu Ala Pro Leu Gln Ala Ala Ser Gln Phe Thr Thr Lys Arg Ser Arg
                85                  90                  95
Arg Ser Gly Arg Thr Gly His Pro Gln Asn Val Ala Gly Asn Glu His
            100                 105                 110
Asp Gly Ala Asn Asn Thr Asn Pro Lys Thr Lys Gly Trp Arg Gln Thr
        115                 120                 125
Ala Phe Val Gln Pro Ala Asp Thr Ser Glu Phe Lys Thr Pro Gln Asn
    130                 135                 140
Tyr Lys Glu Asn Phe Pro Asp Pro Ala Gly Arg Arg Arg Lys Lys Lys
145                 150                 155                 160
Gly Arg Gly Tyr Ala Glu Asp Pro Asn Gly Trp Ala Thr Glu Asp Ala
                165                 170                 175
Thr Asp Ile Gln Glu Met Gly Asp Phe Asp Phe Glu Ser Asn Leu Ser
            180                 185                 190
Lys Phe Asp Lys Arg Arg Val Phe Glu Glu Ile Arg Asn Asp Asp Thr
        195                 200                 205
Thr Ala Asp Glu Asp Arg Leu Val Ser Phe Asn Arg Arg Pro Arg Pro
    210                 215                 220
Gly Thr Asn Gly Gly Lys Asn Leu His Trp Thr Glu Asn Val Leu Asp
225                 230                 235                 240
Ser Pro Gln Asp Ser Asp Asn Ala Asp Ser Asp Leu Gly Arg Ser Asp
                245                 250                 255
Ala Lys Leu Gly Ser Gly Ser Tyr Ser Gly Arg Glu His Ser Arg Thr
            260                 265                 270
Ser Gly Arg Ala Arg Glu Ser Arg Lys Gly Ser Ala Ala Leu Gly Gln
        275                 280                 285
Pro Pro Val Ala Pro Gln Ile Asn Ser Ile Gly Arg Ser Gln Leu Ser
    290                 295                 300
Ser Ser Arg Thr Thr Ser Pro Arg Pro Asn Lys Thr Pro Met Ser Ala
305                 310                 315                 320
Ser Pro Met Thr Gly Ala Val Gly Pro Gly Ala Ser Leu Arg Leu Thr
                325                 330                 335
Thr Thr Asn Arg Ser Cys Pro Thr Val Ser Pro Leu Gln Thr Leu Glu
            340                 345                 350
Val Glu Gln Ile Ala Val Ala Glu Leu Gly Leu Thr Glu Asp Met Ile
```

```
        355                 360                 365
Thr Glu Asn Ala Gly Arg Asp Ile Ala Glu Ala Ala Val Gly Leu Leu
    370                 375                 380
Ser Asn Asp Ala Ala Ala Pro Thr Ile Leu Val Leu Thr Gly Asn His
385                 390                 395                 400
Arg Thr Gly Ala Arg Ala Val Ser Ala Ser Arg His Leu Arg Asn Arg
                405                 410                 415
Gly His Arg Val Thr Leu Cys Val Leu Gly Leu Glu His Glu Asn Glu
            420                 425                 430
Leu Leu Glu Ser Cys Arg Lys Gln Leu Asp Val Phe Lys Lys Ile Gly
        435                 440                 445
Gly Arg Val Phe Arg Trp Glu Asp Leu Ser Ala Gln Leu Ser Ser Ser
    450                 455                 460
Asp Phe Ala Pro Asp Leu Val Val Asp Ala Leu Phe Gly Ile His Ile
465                 470                 475                 480
Ser Phe Glu Asp Leu Arg Thr Asp Asp Gln Ala Ile Ala Phe Glu Met
                485                 490                 495
Ile Ala Trp Val Asn Arg Ser Asn Leu Asp Ile Leu Ser Val Asp Val
            500                 505                 510
Pro Ser Gly Leu Ser Ala Ser Ser Gly Glu Phe Glu Ser Phe Phe Leu
        515                 520                 525
Cys Met Pro Ala Lys Ser Leu Thr Leu
    530                 535
```

<210> 32716
<211> 395
<212> PRT
<213> A.fumigatus

<400> 32716

```
Leu Cys Leu Gln Tyr Ala Leu Leu Thr Glu Ile Leu Lys Lys Ala Gly
1               5                   10                  15
Val Pro Ser Ser Arg Leu Val Gln Leu Ile Lys Asp Phe His Ile Ile
            20                  25                  30
Pro Ser Trp Thr Asp Ile Pro Leu Pro Thr Gly Ile Asp Met Pro Ala
        35                  40                  45
Leu Cys Leu Ser Pro Val Phe Ser Ser Phe Gly Cys Val Arg Leu Met
    50                  55                  60
Ser Tyr Leu His Cys Val Glu Val Phe Val Lys Val Arg Val Asn Gly
65                  70                  75                  80
Ser Ala Trp Leu Leu Leu Ile Tyr Phe Val Pro Gly Arg Ser Leu Asn
                85                  90                  95
Ser Cys Gln Phe Ala Phe His Thr Met Cys Gln Glu Gln Gln Gln Gln
            100                 105                 110
Gln Gln Gln Gln Gln Leu Gln Gln Pro Gln Met Ser Val Pro Val Asn
        115                 120                 125
Pro Gly Leu Val Pro Phe Pro Pro Pro Arg His Glu Leu Ser Ala Pro
    130                 135                 140
Thr Ala Val Arg Pro Glu Ala Ser His Met Arg Lys Arg Pro Leu Phe
145                 150                 155                 160
Leu Leu Asp Lys Gln Pro Leu Ala Pro Arg Ala Ile Gln Pro Arg Pro
                165                 170                 175
Ala Ala Ser Thr Ala Ser Tyr Ser Ser Glu Ser Ser Ala Ser Ala Leu
            180                 185                 190
Leu Ser Pro Ser Leu Glu Ser Thr Thr Thr Lys Gly Glu Pro Pro Arg
        195                 200                 205
```

```
Lys Arg Gly Arg Pro Ser Lys Ala Glu Ala Glu Arg Arg Lys Ala Ala
    210                 215                 220
Ala Glu Ala Arg Gly Glu Ala Tyr Pro Pro Pro Arg Arg Ser Gly Pro
225                 230                 235                 240
His Arg Leu Lys Ala Pro Ser Thr Pro Ala Asn Pro Pro Asp Val Met
                245                 250                 255
Ser Ser Gly Thr Ser Phe Thr Pro Gln Ala Gly Leu Arg Pro Leu Glu
            260                 265                 270
Val Gln Asn Pro Glu Leu Arg Tyr Ala Pro Pro Pro Gly Arg Pro Val
        275                 280                 285
Thr Leu Met Ala Pro Ile Asp Asp Gly Arg Ala Arg Gly Ala Pro Thr
    290                 295                 300
Arg Asp Thr Gly Pro Ile Ile Arg Glu Leu Pro Arg Pro Thr Asp Pro
305                 310                 315                 320
Arg Gln Thr Leu Pro Ser Pro Gln Pro Leu Gln Met Ser His Ala Glu
                325                 330                 335
Ser Val Ala Arg Met Asp Pro Gly Glu Arg Pro Phe Glu Pro Arg Pro
            340                 345                 350
Ser Glu Arg Phe Ser Phe Gly Asp Gly Ser Arg Arg Ile Leu Thr Asp
        355                 360                 365
Pro Ala Ser Arg Arg Pro Glu Ala Pro Ala Leu Pro Thr Pro Glu Leu
    370                 375                 380
Pro Ala Thr Thr Leu Ala Glu Arg Lys Pro Glu
385                 390                 395
```

<210> 32717
<211> 95
<212> PRT
<213> A.fumigatus

```
<400> 32717
Cys Val Val Ala Glu Asn Lys Val Leu Ile Val Ala Leu Gly Arg Leu
1               5                   10                  15
Thr Pro Leu Ile Arg Gln Met Met Ser Pro Asn Val Glu Val Gln Cys
            20                  25                  30
Asn Ala Val Gly Cys Ile Thr Asn Leu Ala Thr His Glu Asp Asn Lys
        35                  40                  45
Ala Lys Ile Ala Arg Ser Gly Ala Leu Gly Pro Leu Ile Arg Leu Ala
    50                  55                  60
Lys Ser Lys Asp Met Arg Val Gln Arg Asn Ala Thr Gly Ser Leu Leu
65                  70                  75                  80
Asn Met Thr His Ser Gly Asn Leu Gly Cys Val Ile Lys Arg Phe
                85                  90                  95
```

<210> 32718
<211> 66
<212> PRT
<213> A.fumigatus

```
<400> 32718
Ser Ser Thr Gly Val Leu Lys Thr Cys Gly Asn Asp Thr Pro Ile Asn
1               5                   10                  15
Asp His Cys Leu Tyr Asp Asn Gln Ser Lys Ser Cys Thr Val Ile Met
            20                  25                  30
Ile Ser Leu Thr Gly Phe Pro Asn Tyr Lys Val Glu Ala Leu Arg Leu
        35                  40                  45
```

Ile Asp Ser Met Ile Ser Val Val Ala Asn Gly Val Gly Gln Ile Thr
50 55 60
Leu Ser
65

<210> 32719
<211> 77
<212> PRT
<213> A.fumigatus

<400> 32719
Leu Ser Glu Val Arg His Ile Val Ala Met Lys Pro Glu Val Gly Thr
1 5 10 15
Asp Val Ile Ile Ile Val Ala Asp Val Arg Glu Val Asp Arg Asp Thr
20 25 30
Leu Glu Pro Ile Leu Phe Leu Leu Gln Ser Ser Asp Ile Glu Val Gln
35 40 45
Arg Ala Ala Ser Ala Ala Leu Gly Asn Leu Ala Val Asn Gly Leu Ser
50 55 60
Leu Asn Leu Ile Ser Ser Ser Ser Thr Ala Asp Val Leu
65 70 75

<210> 32720
<211> 84
<212> PRT
<213> A.fumigatus

<400> 32720
Ala Val Leu Ile His Arg His Ile Glu Met Phe Ser Asp Glu Lys Lys
1 5 10 15
Asp Leu Pro Leu Ser Glu Asp Asp Gly Phe Thr Thr Phe Ala Lys Ser
20 25 30
Asn Ser Ser Ser Lys Asn Lys Lys Asn Gln Glu Ser Asn Leu Lys Ile
35 40 45
Ser Ile Trp Leu Asp Leu Val Val Glu Val Asp Ile Lys Ile Lys Ala
50 55 60
His Leu Tyr Ser Asp Ile Val Ile Ser Leu Leu Gln Val Ala Gly Met
65 70 75 80
Thr Ile His Gly

<210> 32721
<211> 140
<212> PRT
<213> A.fumigatus

<400> 32721
Ser Ala Thr Val Pro His Thr Tyr Leu Arg Phe Glu Thr Val Ala Ser
1 5 10 15
Glu Ala Phe Trp Pro Pro Ile Thr Glu Gly Met Thr Ala Ile Ala Asn
20 25 30
Ala Cys Leu Ser Cys Leu Ser Ala Val Asp Arg Trp Cys His Ile Thr
35 40 45
Ala Cys Leu Gly Pro Ile Gly Gly Arg Ser Arg Asp Gly Ile Tyr Glu
50 55 60
Thr Thr Leu Ala Asp Asn Glu Arg Glu Ala Val Ser Asp Leu Leu Gly

65 70 75 80
Tyr Leu Glu Asn Val Arg Leu Ala Leu Ser Ser Met Pro Leu Arg Phe
85 90 95
Ala Ser Asn Ile Ile Ile Asn Val Leu Gly Pro Leu Ser Ala Val Glu
100 105 110
Ala Asp Phe Thr Cys Val Leu Ala Ser Arg Asn Arg Leu Leu Leu Arg
115 120 125
Arg Thr Ser Ser Arg Pro Glu His Leu Gly Leu Phe
130 135 140

<210> 32722
<211> 63
<212> PRT
<213> A.fumigatus

<400> 32722
Phe Val Asn Val Asn Phe Phe Leu Pro Leu Phe Ile Cys Arg Ile Arg
1 5 10 15
Pro Ser His Ala Phe Leu Ser Ala Met Asn His Thr Ser Phe Phe Tyr
20 25 30
Ser Pro Asp Lys Ala Thr Ser Glu His Phe Ala Asn Ser Leu Gln Gly
35 40 45
Gln Leu Ser Ala Asp Pro Asn Val Phe Ile Val Arg Ser Ile Arg
50 55 60

<210> 32723
<211> 546
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (444),(467),(499)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32723
Arg Leu Tyr Leu Ser Asp Pro Asp Pro Arg Thr Val Pro Arg Asp Ser
1 5 10 15
Arg Ser Gly Gln Val Thr Pro Ile Glu Glu Arg Asp Pro Asp Ala Tyr
20 25 30
Val Glu Arg Pro Thr His Tyr Arg Gly Gly Ile Leu Ser Ser Leu Leu
35 40 45
Lys Leu Tyr Asp Gln Ser Ser Gly Ser Ser His Tyr Ser Arg Gly Arg
50 55 60
Tyr Gly His Ser Arg Gln Ser Ser Leu Gly Glu Val Ser Ser Arg Gly
65 70 75 80
Leu Ser Pro Asp Pro Gly Trp Lys Gln Pro Gln Arg Gln Arg Lys Trp
85 90 95
Tyr Glu Lys Ser Pro Ser Gln Ser Ser Thr Ser Leu Ser Gly Ser Thr
100 105 110
Asp Lys Asn Ser Ser Ser Ser Pro Ile Ala Met Leu Lys Arg Ser Arg
115 120 125
Ser Ser Gly Pro Ile Pro Gly Ser Gly Gly Lys Arg Trp Thr Lys Pro
130 135 140
Arg Leu Glu Asp Glu Ile Arg Ile Thr Val His Ile Ala Glu Leu Leu
145 150 155 160

```
Ser Arg Gln Arg Tyr Leu Ile Arg Leu Cys Arg Ala Leu Met Lys Tyr
                165                 170                 175
Gly Ala Pro Thr His Arg Leu Glu Glu Tyr Met Thr Met Thr Ala Arg
            180                 185                 190
Val Leu Glu Ile Asp Gly Gln Phe Leu Tyr Ile Pro Gly Cys Met Ile
        195                 200                 205
Ile Ser Phe Asp Asp Ala Ser Thr His Thr Thr Glu Val Lys Val Val
    210                 215                 220
Arg Ser Ala Gln Gly Val Asp Leu Gly Lys Leu Ser Asp Val His Ile
225                 230                 235                 240
Val Tyr Lys Glu Val Ile His Asp Val Ile Gly Val Glu Glu Ala Ile
                245                 250                 255
Gln Arg Leu Glu Glu Ile Met Lys Lys Lys Asn Lys Tyr Ser Val Trp
            260                 265                 270
Met Leu Ile Leu Val His Gly Phe Ala Ser Ala Ser Val Gly Pro Phe
        275                 280                 285
Ala Phe Asn Ala Arg Pro Ile Asp Leu Pro Ile Ala Phe Leu Leu Gly
    290                 295                 300
Cys Leu Leu Gly Val Leu Gln Leu Val Leu Ser Pro Arg Ser Asn Leu
305                 310                 315                 320
Tyr Ser Asn Val Phe Glu Ile Ser Ala Ala Val Met Thr Ser Phe Leu
                325                 330                 335
Ala Arg Ala Phe Gly Ser Ile Arg Tyr Glu Gly Glu Arg Leu Phe Cys
            340                 345                 350
Phe Ser Ala Leu Ala Gln Ser Ser Ile Ala Leu Ile Leu Pro Gly Tyr
        355                 360                 365
Leu Val Leu Cys Ala Ser Leu Glu Leu Gln Ser Arg Ser Ile Val Ala
    370                 375                 380
Gly Ser Val Arg Met Val Tyr Ala Ile Ile Tyr Ser Met Phe Leu Gly
385                 390                 395                 400
Phe Gly Ile Thr Ile Gly Thr Ala Val Tyr Gly Leu Leu Asp Ser Asn
                405                 410                 415
Ala Ser Thr Glu Tyr Thr Cys Pro Pro Ser Pro Ile Arg Asp Glu Tyr
            420                 425                 430
Leu Gln His Phe Pro Phe Val Ile Leu Phe Thr Xaa Cys Leu Ala Leu
        435                 440                 445
Val Asn Gln Ala Lys Trp Arg Gln Ile Pro Val Met Leu Phe Ile Ala
    450                 455                 460
Phe Ala Xaa Tyr Val Thr Asn Tyr Phe Gly Ala Lys Arg Phe Ala Ser
465                 470                 475                 480
Ser Thr Gln Val Ser Ser Ala Leu Gly Ala Phe Val Val Gly Val Leu
                485                 490                 495
Gly Asn Xaa Tyr Ser Arg Leu Arg His Gly Leu Ala Ala Ala Ala Met
            500                 505                 510
Leu Pro Ala Ile Phe Val Leu Val Pro Ser Gly Leu Ala Ala Ser Gly
        515                 520                 525
Ser Leu Ile Ser Ser Pro Arg Gly Arg Lys Glu Pro Arg Asn Ala Trp
    530                 535                 540
Val Ser
545
```

<210> 32724
<211> 433
<212> PRT
<213> A.fumigatus

<400> 32724

```
Arg Lys Ala Leu Ile Met Ala Gly Gly Tyr Phe Asp Leu Pro Ile Ser
1               5                  10                  15
Ser Ser Arg Arg Ser Ser Leu Ala Asp Glu Phe His Asn Ala Ser Arg
            20                  25                  30
Pro Ala Pro Pro Pro Arg Thr Ser Pro Leu Val Thr Pro Asn Glu Gly
        35                  40                  45
Ser Ser Gln Glu Lys Pro Leu Gly Phe Ile Asn Thr Pro Gly Arg His
    50                  55                  60
Arg Asn Ala Gly Ile Leu Lys Ser Ala Asn Arg Val Lys Phe Thr Val
65                  70                  75                  80
Ser Glu Ala Gly Leu Leu Glu Ala Pro Ala Ala Gly Ser Thr Ser Glu
                85                  90                  95
Thr Arg Phe Asp Ser Arg Gly Ser Ser Leu Pro Gln Arg Pro Leu Arg
            100                 105                 110
Ala Ala Ser Ile Pro Val Ala Glu Arg Ala Pro Gln Ser Ile Ser Ser
        115                 120                 125
Val Tyr Pro Gly Ser Asn Ala Pro Ala Gly Val Thr Gly Leu Ala Asp
    130                 135                 140
His Ser Gln Ala Ala Ser Ser Glu Ile Ser Arg Asp Tyr Glu Ile Ser
145                 150                 155                 160
Gly Glu Lys Gly Arg Ala Phe Gln Phe Ala Gln Glu Arg Ala Gln Arg
                165                 170                 175
Leu Ala Ser Leu Leu Gly Arg Thr Ser Lys Ser Pro Arg Pro Ser Pro
            180                 185                 190
Arg Ser Ser Val Pro Ser Ser Val Ala Ser Thr Pro Thr Glu Val Val
        195                 200                 205
Pro Pro Ser Glu Asp Gly Ser Asp Ile Pro Met Ile Asn Leu Ser Glu
    210                 215                 220
Lys His Phe Asp Asp Asp Phe Pro Asp Glu Asp Glu Asp Gly Leu Val
225                 230                 235                 240
Asp Gly Arg Thr Leu Thr Arg Thr Ser Glu Ala His Gln Leu Val Arg
                245                 250                 255
Gln Met Thr Arg Lys Asp Phe Thr Phe Leu Thr Arg Ile Arg Ala Arg
            260                 265                 270
Ser Pro Gly Thr Pro Ala Leu Gly Arg Ser Pro Gln Ser Lys Arg Glu
        275                 280                 285
Ile Arg Thr Pro Met Ser Ser Gly Arg Pro Ile Ile Ala Gly Ala Ser
    290                 295                 300
Ser His Pro Ser Ser Ser Tyr Thr Thr Ser Leu Pro Ala Ala Ala Thr
305                 310                 315                 320
Ile Pro Ala Ala Gly Met Ala Thr Pro Val Arg Ala Val Trp Glu Arg
                325                 330                 335
Ser Val Ala Gly Ala Ser Arg Arg Thr Pro Val Gly Asn Asn Pro Ser
            340                 345                 350
Asp Asn Gly Ser Gly Thr Lys Asn Pro Arg Ala Asn Leu Ala Pro Pro
        355                 360                 365
Ser Pro Ala Arg Arg Thr Arg Thr Arg Pro Ala Arg Pro Leu Arg Cys
    370                 375                 380
Ser Ser Ala Arg Gly Ala Val Val Pro Ser Leu Val Arg Ala Ala Asn
385                 390                 395                 400
Ala Gly Pro Asn Pro Gly Trp Arg Met Arg Ser Ala Leu Leu Ser Ile
                405                 410                 415
Ser Pro Ser Cys Ser Arg Ala Ser Asp Ile Ser Ser Asp Cys Val Gly
            420                 425                 430
His
```

<210> 32725
<211> 166
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (81),(104),(136)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32725
Phe Cys Pro Gly Thr Trp Cys Cys Ala Pro Val Trp Asn Cys Ser Arg
1 5 10 15
Ala Ala Leu Ser Pro Ala Pro Cys Ala Trp Phe Thr Pro Leu Ser Thr
20 25 30
Gln Cys Ser Leu Asp Ser Ala Ser Gln Ser Glu Pro Gln Cys Thr Ala
35 40 45
Cys Trp Thr Arg Thr Pro Arg Pro Ser Thr His Ala Pro Arg Ala Gln
50 55 60
Ser Ala Thr Ser Thr Cys Ser Thr Ser Leu Ser Ser Ser Phe Ser Leu
65 70 75 80
Xaa Ala Ser Arg Ser Leu Ile Arg Pro Asn Gly Ala Arg Ser Leu Ser
85 90 95
Cys Phe Ser Ser Pro Ser Pro Xaa Thr Ser Pro Thr Thr Ser Ala Leu
100 105 110
Ser Ala Ser Pro Pro Ala Arg Arg Phe Pro Pro Pro Ser Ala Pro Leu
115 120 125
Ser Leu Ala Ser Trp Ala Thr Xaa Thr Ala Ala Ser Val Thr Ala Ser
130 135 140
Gln Pro Gln Pro Cys Ser Pro Pro Phe Ser Phe Ser Ser Pro Pro Asp
145 150 155 160
Ser Leu Pro Ala Ala Pro
165

<210> 32726
<211> 204
<212> PRT
<213> A.fumigatus

<400> 32726
Arg Phe Ile Tyr Pro Ala Gln Phe Cys Leu Leu Ser Ile Pro Asn Val
1 5 10 15
Glu Ser Ser Val Phe Pro Leu Thr Gln Phe Pro Val Ser Trp Thr Leu
20 25 30
Phe His Pro Leu Pro Leu Gly Thr Ala His Arg Pro Ile Phe Cys Pro
35 40 45
Ser Ala Ala Leu Asn Gly Arg Trp Arg Gln Leu Asp Ala Pro Val Arg
50 55 60
Ala Met Ala Thr Arg Leu Pro Pro Leu Asn Asp Val Ala Pro Ser Ser
65 70 75 80
Ala Leu Glu Ser Ser Ser Ser Val Ser Thr Thr Pro Ala Pro Ala Ala
85 90 95
Ala Ser Ala Thr Val Leu Val Ser Ala Thr Ala Ser Ile Pro Leu Thr
100 105 110

```
Ser Asn Pro Ser Ser Thr Val Leu Ser Thr Pro Asn Gln Asp Pro Asp
        115                 120                 125
Cys Val Lys Gln Glu Ala Ser Pro Thr Pro Ser Gly Phe Thr Ser Ala
    130                 135                 140
Asp Gly Asp Thr Pro Val Ala Asp Asn Gly Gly Ser Thr Ala Ala Ala
145                 150                 155                 160
Gly Arg Lys Arg Lys Leu Asn Ser Thr Ser Ser Arg Gly Val Ala Asn
                165                 170                 175
Leu Thr Pro Glu Gln Leu Ala Lys Lys Arg Ala Asn Asp Arg Gln Ala
            180                 185                 190
Pro Ala Gly Asp Pro Gly Ala Asp Gln Ile Ala His
        195                 200
```

<210> 32727
<211> 467
<212> PRT
<213> A.fumigatus

<400> 32727

```
Leu Pro Ser Ser Trp Pro Arg Ser Glu Arg Met Ile Gly Arg Pro Gln
1               5                   10                  15
Arg Ala Ile Arg Glu Arg Thr Lys Ser His Ile Glu Ser Leu Glu Gln
            20                  25                  30
Arg Val His Glu Leu Ser Ser Gln Lys Pro Phe Leu Asp Leu Gln Ala
        35                  40                  45
Ala Leu Lys Arg Asn Glu Ala Ile Gln Ala Glu Asn Arg Asp Leu Lys
    50                  55                  60
His Gly Leu Lys Ala Val Met Asp Ile Ile Gln Pro Leu Val Ala Lys
65                  70                  75                  80
Gln Asp Pro Ser Glu Cys Ser Leu Val Leu Phe Met Asn Cys Ser Cys
                85                  90                  95
Gly Leu Ser Leu Thr Gln Trp Thr Ile Asp Gln Pro Ala Pro Pro Pro
            100                 105                 110
Ala Pro Ser Gln Pro Leu Asp Pro Ser Phe Ser Pro Leu Arg Tyr Thr
        115                 120                 125
Glu Thr His His Phe Thr Ser Thr Gly Gln Arg Tyr Glu Ser Ser Tyr
    130                 135                 140
Thr Thr Thr Thr Ser Gly Ala Asp Thr Pro Thr Ser Thr His Ser Ala
145                 150                 155                 160
Pro Thr Met Ser Ala His Arg Arg Asp Ser Ser Ser Asn Gly Leu Ala
                165                 170                 175
Ser Phe Arg Ile Ala Phe Asp Tyr Gln Arg His Asn Leu Ala His Gly
            180                 185                 190
Leu Asp Phe Gly Thr Asp Glu Arg Leu Gly Phe Asn Phe Leu Leu Asp
        195                 200                 205
Ala Ser Gln Gln Val Pro Arg Val Glu Gly Phe Arg Arg Ser Thr Glu
    210                 215                 220
Ser Phe Arg Pro Cys Gln Ala Asp Leu Pro Pro Val Tyr Thr Pro Ser
225                 230                 235                 240
Pro Cys Gly Pro Ala Pro Glu Gln Pro Leu Pro Ala Tyr Lys Thr Pro
                245                 250                 255
Ile Arg Asn Ile Ala Pro Thr Cys Thr Leu Asp Ala Ile Leu Leu Asp
            260                 265                 270
Phe Leu Gln Ser Arg Arg Arg Lys Ala Ala Glu Gly Val Pro Thr Gln
        275                 280                 285
Lys Leu Val Gly Pro Pro Tyr Pro Ser Val Ser Ser Leu Leu Asn Pro
```

```
    290                 295                 300
Glu Lys Ser Val Tyr Ser His Pro Leu Ser Lys Val Phe Val Asp Ile
305                 310                 315                 320
Leu Arg Ala Phe Pro Asp Ile Ser Ser Leu Pro Glu Gln Val Ala Val
                325                 330                 335
Leu Tyr Ser Met Phe Leu Leu Met Arg Trp Gln Ile Tyr Pro Thr Pro
            340                 345                 350
Glu Asn Tyr Glu Arg Leu Pro Asp Trp Leu Thr Pro Arg Pro Ser Gln
        355                 360                 365
Leu Leu Thr Pro His Pro Ala Trp Ile Asp Tyr Ile Pro Trp Pro Arg
    370                 375                 380
Met Arg Asp Arg Leu Val Ala Ser Tyr Gln Asp Tyr Pro Phe Glu His
385                 390                 395                 400
Trp Phe Ile Pro Phe Thr Arg Thr Leu Ser Val Asn Trp Pro Tyr Glu
                405                 410                 415
Ala Thr Asp Cys Leu Leu Ser Thr Ser Asp His Glu Asp Leu Ile Ile
            420                 425                 430
Asn Pro Val Phe Glu Arg His Phe Arg Asn Leu Asp Asn Trp Ser Leu
        435                 440                 445
Gly Pro Ser Phe Ala Glu Ala Tyr Pro His Met Ala Glu Thr Ala Arg
    450                 455                 460
Ile Lys Ser
465
```

<210> 32728
<211> 66
<212> PRT
<213> A.fumigatus

```
<400> 32728
Phe Gly Val Glu Arg Thr Val Glu Asp Gly Phe Glu Val Ser Gly Ile
1               5                   10                  15
Asp Ala Val Ala Asp Thr Asn Thr Val Ala Asp Ala Ala Ala Gly Ala
            20                  25                  30
Gly Val Val Leu Thr Asp Asp Asp Asp Ser Arg Ala Asp Glu Gly Ala
        35                  40                  45
Thr Ser Phe Lys Gly Gly Arg Arg Val Ala Met Ala Leu Thr Gly Ala
    50                  55                  60
Ser Ser
65
```

<210> 32729
<211> 343
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 32729
Ala Phe Xaa Cys Ser Cys Gln Cys Leu Ser Leu Pro Gln Phe Phe Leu
1               5                   10                  15
Asp Val Leu Leu Ile Lys Lys Leu Gln Leu Leu Trp Leu Ser Val Pro
            20                  25                  30
```

```
Asp Arg Pro Phe Pro Ala Arg Thr Pro His Arg Arg Arg Lys Gly Arg
        35                  40                  45
Ser Leu Gln Ile Ser Ser Val Ser Val Glu Leu Pro Ser Lys Glu Pro
    50                  55                  60
Gln Leu Ala Lys Gln Glu Glu Arg Leu Asp Glu Glu Lys Pro Val Gln
65                  70                  75                  80
Gln Thr Val Gln Glu Gln Ser Glu Pro Gln Thr Pro Ser Pro Ser Ala
                85                  90                  95
Ala Pro Ser Val Ala Asp Ser Thr Thr Gln Pro Thr Thr Pro Ser Ser
            100                 105                 110
Ala Val Ala Ser Thr Thr Ala Arg Pro Gln Ser His Ser Lys Gly Pro
        115                 120                 125
Lys Pro Ala Val Pro Val Val Pro Val Leu Pro Val Ile Pro Ser Pro
    130                 135                 140
Val Ala His Gln Arg Gln Pro Pro Lys Asp Asp Val Ser Arg Ala Pro
145                 150                 155                 160
Glu Thr Pro Lys Ser Thr Thr Ala Ser Ala Thr Ser Val Asn Glu Thr
                165                 170                 175
Pro Lys Glu Asp Ala Val Lys Glu Thr Ala Lys Ala Ala Ser Pro Pro
            180                 185                 190
Arg Ala Ala Pro Lys Ser Trp Ala Asp Leu Val Arg Ala Lys Gly Ala
        195                 200                 205
Ser Arg Val Ser Gly Pro Ala Gly Ala Leu Ser Ile Glu Ser Asn Gly
    210                 215                 220
Leu Val Met Arg Lys Ser Glu Ser Leu Ala Asp Val Leu Thr Ser Leu
225                 230                 235                 240
Gly Glu Asp Val Ser Gln Tyr Ser Asp Lys Ile Ala Phe Leu Glu Pro
                245                 250                 255
Arg Gly Leu Ile Asn Thr Gly Asn Met Cys Tyr Met Asn Ser Val Ser
            260                 265                 270
Trp His Ala Ile Arg Phe Ala Asp Leu His Leu Leu Asn Ala Arg Glu
        275                 280                 285
Gln Val Leu Gln Ile Leu Val Ser Cys Ile Pro Phe Tyr Gln Phe Leu
    290                 295                 300
Asp His Val Gly Arg Arg Ile Ser His Ser Val Gln Ser Ala Phe Pro
305                 310                 315                 320
Met Val Asp Ala Met Ser Val Cys Pro Thr Leu Leu Pro Ala Thr His
                325                 330                 335
Asp Asn Thr Asp Ile Ile Ser
            340
```

<210> 32730
<211> 363
<212> PRT
<213> A.fumigatus

<400> 32730

```
Arg Gly His Gln Gln Asp Ala Gln Glu Phe Leu Gly Phe Leu Leu Glu
1               5                   10                  15
Glu Met His Glu Glu Cys Val Arg Ala Ala Lys Asn Ala Ser Thr Thr
            20                  25                  30
Lys Pro Ala Ala Ser Ile Thr Ala Glu Ser Ile Asp Lys Glu Glu Gln
        35                  40                  45
Ser Gly Asp Gly Trp Leu Glu Val Gly His Lys Gln Lys Ala Ala Ile
    50                  55                  60
Thr Arg Ser Ser Gly His Ile Thr Gln Glu Ser Pro Ile Thr Arg Ile
```

```
65                  70                  75                  80
Phe Gly Gly Lys Ile Arg Ser Glu Phe Lys Val Pro Gly Asn Lys Thr
                85                  90                  95
Ser Val Thr Leu Glu Pro Tyr Gln Pro Leu Gln Leu Asp Ile Gly Ser
            100                 105                 110
Pro Asp Ile His Asn Ile Val Asp Ala Leu Lys Gly Leu Thr Lys Pro
        115                 120                 125
Glu Ser Ile Gln Gly Asp Phe Asn Ser Ser Arg Gly Pro Asn Val Thr
    130                 135                 140
Ala Thr Lys Gln Ile Phe Ile Glu Asn Leu Pro Pro Val Leu Ile Leu
145                 150                 155                 160
His Leu Lys Arg Phe Gln Tyr Asp Ser Val Thr Arg Gly Thr Gln Lys
                165                 170                 175
Ile Trp Lys Lys Ile Gly Tyr Pro Leu Asp Leu Glu Ile Pro Arg Glu
            180                 185                 190
Val Phe Ala Pro Asn Lys Arg Asn Val Met Met Ala His Gly Gly Leu
        195                 200                 205
Pro Lys Tyr Arg Leu Ile Gly Val Ile Tyr His His Gly Arg Asn Ala
    210                 215                 220
Ser Gly Gly His Tyr Thr Val Asp Val Arg Arg Gln Asp Gly Arg Glu
225                 230                 235                 240
Trp Ile Arg Leu Asp Asp Thr Val Ile Arg Arg Ile Lys Ser Glu Asp
                245                 250                 255
Val Ala Glu Ala Gly Gly Glu Glu Asp Pro Lys Val Leu Ala Ala Ala
            260                 265                 270
Leu Glu Gln His Lys Arg Asp Asn Thr Ser Asn Ala Asn Ile Phe Gly
        275                 280                 285
His Ile Asp Gln Asp Asp Gln Asp Gln Ser Asp Asn Glu Arg Gly Trp
    290                 295                 300
Ser Gln Val Asn Gly Thr Ser Thr Gly Gly His Ser Ser Lys Lys Ser
305                 310                 315                 320
Thr Ser Thr Val Leu Asn Gly Ala Ser Ala Thr Ala Ser Gly Ser Ser
                325                 330                 335
Ser Gly Val Arg Thr Pro Ile Gly Arg Tyr Gly Ser Arg Asp Asn Lys
            340                 345                 350
Val Ala Tyr Leu Leu Phe Tyr Gln Arg Val Ala
        355                 360
```

<210> 32731
<211> 78
<212> PRT
<213> A.fumigatus

```
<400> 32731
Arg Cys Phe Ala Arg His Gly Glu Thr Ser Val Ser Arg Ala Glu Ile
1               5                   10                  15
Cys Leu Glu Ala Arg Leu Ser Pro Cys Lys Gly Gln Gln Ser Ala Tyr
            20                  25                  30
Ser Ser Leu Arg Val Ser Ser Gly Leu Ala Phe Ser Tyr Ala Ile Ser
        35                  40                  45
Asn Ser Ala Ala Ser Ser Gln Arg Ala Thr Leu Gln Ser Leu Leu Ala
    50                  55                  60
Met Ala Leu Ala Asn His Pro Pro Ala Met Asn Ser Ala Gly
65                  70                  75
```

<210> 32732

<211> 445
<212> PRT
<213> A.fumigatus

<400> 32732

```
His Ser Tyr Arg Ser Tyr Ile Arg Asn Gln Pro Thr Gly Asp Thr Ser
1               5                  10                  15
Ser Pro Thr Ile Ser Thr Arg Pro Thr Pro His Ser Thr Thr Met Ala
            20                  25                  30
Gly Ser Gly Lys Lys Ser Lys Gly Lys Pro Gly Ala Lys Gln Lys Asn
        35                  40                  45
Lys Lys Gly Lys Asn Gln Glu Thr Ser Glu Asn Pro Ser Glu Thr Pro
    50                  55                  60
Phe Ala Glu Lys Gln Asp Gln Gln Thr His Pro Glu Ile Asp Ser Glu
65                  70                  75                  80
Thr Pro Leu Asp Gln Glu Gly Gln Pro Leu Gln Ala Glu Val Glu Ala
                85                  90                  95
Glu Pro Gln Pro Ala Glu Ser Gln Gly Phe Glu Ser Asn Val Pro Leu
            100                 105                 110
Gln Ser Leu Pro Glu Pro Gly Pro Asn His Gly Gln Ala Pro Glu Gln
        115                 120                 125
Val Pro Glu Leu Glu His Pro Gln Pro Val Ala Ala Thr Ala Ser Ala
    130                 135                 140
Val Thr Glu Asn Trp Glu Asp Pro Gln Pro Ser Thr Asn Leu Asp Gln
145                 150                 155                 160
Glu Gly Ile Ser Ser Gln Pro Gln Thr Leu Asn Asp Val Gln Asn Ile
                165                 170                 175
Leu Glu Ala Thr His Glu Ser Ile Leu Glu Glu Leu Ala Ala Ser Asp
            180                 185                 190
Pro Pro Thr Glu Thr Ala Ala Val Glu Thr Asn Pro Glu Pro Asn His
        195                 200                 205
Gly Leu Ser Gly Gln Ser Asp Ala Ala Glu Pro Pro Glu Pro Ile Pro
    210                 215                 220
Val Thr Ala Pro Gln Thr Pro Met Phe Gln Glu Ala Ala Ala Ala Cys
225                 230                 235                 240
Pro Leu Pro Ser Pro Ser Leu Thr Glu Thr Glu Tyr Ile Ala Ala Ser
                245                 250                 255
Ser His Ser Asn Ala Ala Ser Pro Ala Pro Asn Pro Ser Pro Glu Ala
            260                 265                 270
Glu Ala Glu Val Asn Leu Pro Asn Pro Gln Gln Glu Pro Thr Pro Pro
        275                 280                 285
Ala Asp Gln Ala Val Ser Pro Ala Pro Asp Pro Ala Ser Ser Ser Arg
    290                 295                 300
Pro Leu Ser Pro Ala Pro Val Ala Ala Ser Ser Glu Pro Pro Ala Ser
305                 310                 315                 320
Ser Ser Val Leu Gln Thr Ala Ser Pro Ala Leu Glu Ala Asp Ala Phe
                325                 330                 335
His Ser Ala Ser Pro Val Asn His Pro Ala Ser Pro Ala Phe His Thr
            340                 345                 350
Ala Ser Pro Ala Ser Lys Pro Ser Ser Pro Ile Pro Gln Ser Ala Ser
        355                 360                 365
Ser His Tyr Lys Gly Ala Ser Pro Ala Met Ala Lys Pro Ala Ser Pro
    370                 375                 380
Val Gln Arg Tyr Ala Ser Lys Pro Ala Ser Pro Leu Ala Lys Ala Asn
385                 390                 395                 400
Asn Pro Leu Thr Arg Pro Tyr Val Ser Pro Ala Val Ser Pro Ser Ala
```

```
                405                 410                 415
Thr Pro Phe Arg Thr Pro Pro Pro Ala Pro Ser Val Pro Pro Phe Asn
            420                 425                 430
Arg Ser Trp Leu Trp His Trp Leu Ile Ile Pro Leu Arg
        435                 440                 445
```

<210> 32733
<211> 65
<212> PRT
<213> A.fumigatus

<400> 32733

```
Ser Tyr His Pro Gly Arg Cys Ser Leu Ile Leu Met Pro Asn Pro Leu
1               5                   10                  15
His Phe Thr Lys Ile Val Gln Pro Cys Arg Ser Gly Thr Asp Gly Phe
            20                  25                  30
Gly Pro Ile Leu Thr Ile Thr Ala Leu Ala Pro Lys Thr Gly Ala Leu
        35                  40                  45
Arg Ser Pro Asn Tyr Gln Tyr Ser Gly Val Thr Arg Thr Thr His Gly
    50                  55                  60
Tyr
65
```

<210> 32734
<211> 74
<212> PRT
<213> A.fumigatus

<400> 32734

```
Thr Asp Thr Ile Ala Ala Thr Val Gly Val Gly Pro Ala Val Asp Val
1               5                   10                  15
Thr Tyr Asn Ser Ile Glu Leu Gln Pro Cys Phe Asp Thr Ala Gln Ser
            20                  25                  30
Thr Trp Thr Met Thr Thr Leu Met Pro Leu Thr Gln Ala Arg Lys Glu
        35                  40                  45
Tyr Asn Leu Ile Lys Lys Gln Gln Ser Cys Thr Thr Leu Lys Met Cys
    50                  55                  60
Leu Ser Gln Ser Ser Asp Trp Asp Leu Asp
65                  70
```

<210> 32735
<211> 113
<212> PRT
<213> A.fumigatus

<400> 32735

```
Leu Thr Leu Pro Gln Ala Ile Asn Glu Leu Asn Ile Leu Pro Leu Arg
1               5                   10                  15
Ala Arg Gly Ser Val Ser Phe Ile Arg Ser Ala Ala Gln Ala Phe Ser
            20                  25                  30
Ser Phe Pro Pro Ile Ile Ala Arg Asn Val Gly His Val Ile Met Trp
        35                  40                  45
Ser Ile Thr Cys Ile Gly His Glu Arg Ala Arg Leu Ser Ser Gly Val
    50                  55                  60
Tyr Glu Asn Glu Thr Arg Gln Gly Leu Ala Asp Glu Leu Leu Val Met
65                  70                  75                  80
```

```
Ala Lys Asp Leu Met Ile Phe Ser Gly Met Val Lys Tyr Lys Leu Pro
                85                  90                  95
Pro Arg Val Tyr Glu Thr Leu Ala Arg Ala Gly Ala Asp Ile Gly Ala
            100                 105                 110
Tyr
```

<210> 32736
<211> 226
<212> PRT
<213> A.fumigatus

<400> 32736

```
Arg Pro Leu Val Asp Pro Gly Thr Thr Asn Thr Pro Lys Gln Leu Ala
1               5                   10                  15
Leu Asp Gln Ser Ala Arg Lys Val Tyr Phe Ser Asp Arg Glu Gly Leu
            20                  25                  30
Arg Val Phe Arg Cys Asn Tyr Asp Gly Ser Asp Leu Glu Ile Ile Val
        35                  40                  45
Gln Thr Gly Asp Tyr His Arg Pro Gly Asp Met Gln Asp Ala Thr Lys
    50                  55                  60
Trp Cys Val Gly Ile Ala Val Ser Pro Arg Phe Gly Lys Phe Tyr Trp
65                  70                  75                  80
Thr Gln Lys Gly Phe Ser Lys Ser Ser Thr Gly Arg Ile Phe Cys Ala
                85                  90                  95
Asp Ile Asp Met Pro Pro Gly Gln Thr Ala Ala Lys Arg Asn Asp Ile
            100                 105                 110
Arg Cys Leu Leu Glu Gly Leu Pro Glu Pro Ile Asp Leu Glu Val Asp
        115                 120                 125
Glu Glu Ser Gly Arg Leu Tyr Trp Thr Asp Arg Gly Glu Leu Pro Phe
    130                 135                 140
Gly Asn Ser Leu Asn Arg Val Ser Leu Lys Glu Thr Gly Ser Glu Val
145                 150                 155                 160
Glu Arg Thr Gly His Leu Gly Tyr Glu Val Leu Thr Arg Asn Leu Asn
                165                 170                 175
Glu Ala Ile Gly Leu Lys Leu Asp Leu Gly Arg Gly His Ile Tyr Leu
            180                 185                 190
Thr Asp Leu Gly Gly Ser Val Tyr Arg Thr Asp Gly Asp Gly Lys Gln
        195                 200                 205
Lys Val Lys Leu Tyr Ser Asp Glu Ser Arg Ala Phe Thr Gly Ile Ala
    210                 215                 220
Leu Leu
225
```

<210> 32737
<211> 349
<212> PRT
<213> A.fumigatus

<400> 32737

```
Ala Pro Glu Pro Asp Gln Gln Leu Phe Ile Pro Pro Ala Leu Arg Thr
1               5                   10                  15
Ile Ser Pro Gln Arg Lys Pro Glu Ala Pro Leu Gln Leu Ser Arg Thr
            20                  25                  30
Cys Arg Arg Leu Arg Asp Val Cys Gln Pro Leu Leu Phe Gln Cys Tyr
        35                  40                  45
```

```
Tyr His Ser Ser Lys Ser Leu Thr Ser Leu Leu Ser Phe Leu Arg Thr
    50                  55                  60
Leu Glu Ala Arg Pro Asp Leu Ala Lys Cys Val Thr Ser Leu Asp Phe
65                  70                  75                  80
Asn Gly Gln Gly Gln Ala Asp Ala Leu Ser Asp Gly Asp Gln Gln Leu
                85                  90                  95
Leu Glu Ser Cys Ile Ala Lys Phe Gly Leu Pro Leu Leu Leu Asp Asp
            100                 105                 110
Trp Gln Asp Cys Leu Gly Val Glu Arg Arg Leu Leu Ala Ala Glu Leu
        115                 120                 125
Val Val Ala Ser Cys Pro Asn Ile Glu Ala Leu Arg Leu Pro Met Asn
    130                 135                 140
Pro Glu Trp Leu Val Ser Val Leu Asp Ser Leu Pro Lys Asp Phe Val
145                 150                 155                 160
Phe Ala Lys Leu Arg Lys Leu Asp Val Trp Leu Tyr Tyr Ile Ser Gly
                165                 170                 175
Asp His Tyr Gly Ile Gly Tyr Arg Lys Ile Ser Gly Leu Leu His Ala
            180                 185                 190
Ser Pro Asn Leu Glu His Leu Ser Leu Pro Ser Ile Glu Ala Phe Tyr
        195                 200                 205
Pro Gly Glu Ala Gly Val Pro Ile Leu Glu Lys Val Arg His Leu Asp
    210                 215                 220
Leu Gly Asp Ser Ala Pro Ser Pro Tyr Phe Leu Lys Arg Val Leu Glu
225                 230                 235                 240
Ala Cys Pro Asn Leu Glu Arg Phe Glu Leu His Trp Ile Val Ser Asp
                245                 250                 255
Gly Tyr Asp Glu Asp Ser Glu Glu Trp Ser Pro Leu Asp Arg Arg Arg
            260                 265                 270
Ala Leu Gln Arg Val Gln Ser Ser Val Arg Glu Ile Ile Phe Glu Ala
        275                 280                 285
Thr Ile Glu Phe Arg Asp Asp Asp Asn Leu Glu Asp Ser Val Pro Thr
    290                 295                 300
Leu Arg Asp Phe Ser Arg Leu Glu Ile Leu Lys Val Asn Asp Ile Ala
305                 310                 315                 320
Leu Gln Ala Leu Tyr Lys Val Trp Thr His Pro Asn Arg His Gly Thr
                325                 330                 335
Val Glu Gln Phe Val Tyr Gln Gly Val Ser Val Tyr Asp
            340                 345
```

<210> 32738
<211> 106
<212> PRT
<213> A.fumigatus

<400> 32738

```
Gln Ile Ser Val Phe Ser His Gln Leu Gln Pro Thr Ser Ile Ala Ile
1               5                   10                  15
Arg Gln Gln Gln Glu Tyr Ile Ser Leu Val Arg Pro Asp Ser Asn Pro
            20                  25                  30
Gly Lys Arg Asn Thr Leu Ile Thr Met Val Val Thr Ser Leu Glu Thr
        35                  40                  45
Leu Pro Val Glu Leu Leu Ser Gln Ile Ser Ser Tyr Leu Ser Pro Leu
    50                  55                  60
Arg Cys Gly Gln Tyr Pro His Ser Val Ser Gln Lys His Leu Ser Ser
65                  70                  75                  80
Ser Val Ala His Val Gly Gly Ser Val Met Ser Ala Asn Arg Phe Tyr
```

```
                85                  90                  95
Ser Ser Ala Ile Thr Ile Leu Pro Ser Pro
            100                 105
```

<210> 32739
<211> 227
<212> PRT
<213> A.fumigatus

<400> 32739

```
Tyr Ala Gly Cys Tyr Gly Cys Gln Tyr Arg Cys Cys Arg Gln Glu Glu
1               5                   10                  15
Gly Ala Asp Lys Cys Arg Arg Thr Glu Ile Leu Cys Gly Ala Arg Glu
            20                  25                  30
Gln Arg Gly Arg Arg Ser Ala Leu Gly Thr Pro Asn Leu Phe Thr Pro
        35                  40                  45
Ser Pro Ser Phe Pro Leu Gly Cys Asp Ala Phe Val Ala Phe Trp Phe
    50                  55                  60
Gln Arg Leu Thr Val Arg Gln Ser Lys Arg Arg Arg Thr Ser Val Lys
65                  70                  75                  80
His Glu Asp Pro Glu Thr Asp Glu Asp Val Pro Leu Ala Leu Asn Gly
                85                  90                  95
Arg Lys Leu Pro Lys Ala Ser Glu Thr Ala Leu Gly Ala Glu Glu Ser
            100                 105                 110
Asp Ser Asp Val Pro Ile Glu Arg Lys Leu Val Ala Gln Lys Lys Lys
        115                 120                 125
Ile Gln Gln Lys Ala Glu Lys Asp Ala Lys Ala Ser Arg Lys Ser Asp
    130                 135                 140
Ala Ser Gln Ala Ala Lys Ala Thr Ala Ala Ser Lys Lys Lys Gln Val
145                 150                 155                 160
Asn Gly Val Lys Ser Glu Pro Val Asp Glu Lys Lys Pro Ala Val Lys
                165                 170                 175
Lys Thr Thr Lys Gln Ala Asn Ala Glu Pro Ala Ala Ser Ala Arg Asn
            180                 185                 190
Gly Lys Thr Lys Ala Thr Pro Val Lys Lys Glu Glu Ser Thr Glu Ala
        195                 200                 205
Glu Glu Gly Glu Glu Glu Glu Glu Glu Tyr Arg Trp Trp Glu Asp Pro
    210                 215                 220
Thr Lys Gly
225
```

<210> 32740
<211> 69
<212> PRT
<213> A.fumigatus

<400> 32740

```
Asp Glu Val Arg Arg Cys Ser Arg Ala Phe Phe Thr Arg Lys Pro Lys
1               5                   10                  15
Lys Trp Arg Ala Leu Phe Gly Ser Met Leu Asn Ala Thr Gln His Val
            20                  25                  30
Glu Asn Pro Thr Phe Gln Lys Asn Phe Phe Met Asp Phe Lys Glu Val
        35                  40                  45
Leu Glu Lys Thr Gly Gly Ala Lys Asp Pro Lys Gly His Pro Asn Arg
    50                  55                  60
Asp Gln Gly Val Leu
```

65

<210> 32741
<211> 139
<212> PRT
<213> A.fumigatus

<400> 32741
Val Val Phe Thr Val Ala Ser His Gly Val Glu Ser Ser Gln Pro Phe
1 5 10 15
Ala Pro Pro Tyr Leu Leu Ser Phe Leu Thr Phe Val Leu Ile Pro Gln
20 25 30
Ile Ser His Ser Tyr Ala Tyr Ile Gln Leu Asn Leu Thr Phe His Gly
35 40 45
Met Ser Ala Thr Ser Thr Asp Val Lys Met Glu Asp Thr Pro Glu Thr
50 55 60
Asn Gly His Val Glu Pro Gly Val Ser Leu Arg Phe Gly Pro Val Lys
65 70 75 80
Ser Ala Gly Asp Ile Asp Met Gln Asp Ala Thr Asp Ala Asn Thr Gly
85 90 95
Val Ala Gly Lys Arg Lys Ala Arg Thr Ser Val Gly Glu Arg Lys Ser
100 105 110
Tyr Ala Glu Pro Glu Ser Ser Glu Asp Glu Asp Gln Pro Leu Val Arg
115 120 125
Arg Thr Ser Leu Arg Arg Leu Pro Arg Phe Pro
130 135

<210> 32742
<211> 117
<212> PRT
<213> A.fumigatus

<400> 32742
Arg Val Asn Leu Ser Met Arg Arg Asn Arg Gln Ser Arg Arg Gln Pro
1 5 10 15
Asn Lys Pro Met Gln Ser Arg Gln Leu Leu Leu Gly Thr Gly Lys Arg
20 25 30
Arg Arg His Leu Ser Arg Arg Lys Lys Ala Leu Lys Leu Arg Lys Val
35 40 45
Lys Lys Lys Arg Lys Ser Thr Asp Gly Gly Arg Ile Arg Pro Lys Gly
50 55 60
Asp Gly Thr Ile Lys Trp Thr Thr Leu Glu His Asn Gly Val Val Phe
65 70 75 80
Leu Leu Pro Tyr Glu Leu Leu Pro Ser Asp Val Lys Met Lys Tyr Asp
85 90 95
Gly Val Pro Gly His Ser Ser Pro Glu Ser Arg Lys Ser Gly Gly Leu
100 105 110
Phe Ser Val Ala Cys
115

<210> 32743
<211> 338
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (338)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32743

```
Met Arg Leu Asn Met Trp Lys Thr Gln Pro Ser Arg Arg Thr Ser Leu
1               5                  10                  15
Trp Ile Ser Lys Arg Ser Trp Lys Arg Gln Val Glu Arg Arg Ile Gln
            20                  25                  30
Arg Gly Thr Gln Ile Glu Ile Lys Glu Phe Ser Lys Cys Asp Phe Arg
        35                  40                  45
Pro Ile Phe Asp Tyr Tyr Asp Ala Lys Arg Ile Glu Lys Lys Asn Leu
    50                  55                  60
Pro Pro Ala Glu Lys Lys Arg Leu Lys Ala Glu Lys Asp Ala Ala Glu
65                  70                  75                  80
Ala Pro Tyr Met Tyr Cys Leu Trp Asp Gly Arg Lys Gln Lys Val Gly
                85                  90                  95
Asn Phe Arg Val Glu Pro Pro Ala Leu Phe Arg Gly Arg Gly Glu His
            100                 105                 110
Pro Lys Thr Gly Arg Val Lys Ala Arg Val Gln Pro Glu Gln Ile Thr
        115                 120                 125
Ile Asn Ile Gly Lys Asp Ala Pro Val Pro Pro Pro Pro Glu Gly His
    130                 135                 140
Arg Trp Lys Glu Val Lys His Asp Gln Glu Gly Thr Trp Leu Ala Met
145                 150                 155                 160
Trp Gln Glu Asn Ile Asn Gly Asn Tyr Lys Tyr Val Met Leu Ala Ala
                165                 170                 175
Asn Ser Asp Val Lys Gly Leu Ser Asp Tyr Lys Lys Phe Glu Lys Ala
            180                 185                 190
Arg Glu Leu Lys Lys His Ile Asp Arg Ile Arg Lys Asp Tyr Gln Lys
        195                 200                 205
Ala Leu Lys His Glu Leu Met Val Glu Arg Gln Lys Ala Thr Ala Val
    210                 215                 220
Tyr Leu Ile Asp Gln Phe Ala Leu Arg Ala Gly Asn Glu Lys Gly Glu
225                 230                 235                 240
Asp Glu Ala Glu Thr Val Gly Cys Cys Ser Leu Lys Tyr Glu Asn Val
                245                 250                 255
Thr Leu Lys Pro Pro Asn Lys Val Ile Phe Asp Phe Leu Gly Lys Asp
            260                 265                 270
Ser Ile Arg Phe Tyr Asp Glu Val Glu Val Asp Pro Gln Val Phe Lys
        275                 280                 285
Asn Leu Lys Ile Phe Lys Lys Pro Pro Lys Lys Glu Gly Asp Glu Ile
    290                 295                 300
Phe Asp Arg Leu Thr Val Cys Ala Gln Leu Gly Leu Phe Val Ile Asp
305                 310                 315                 320
Asp Asp Asn Phe Cys Leu Thr Arg Pro Gly Met Glu Gly Val Ala Ser
                325                 330                 335
Pro Xaa
```

<210> 32744
<211> 110
<212> PRT
<213> A.fumigatus

<400> 32744

```
Glu Asp Thr Ile Glu Lys Phe Leu Gln Val Gly Val Ser Thr Asn Tyr
1               5                  10                  15
Gln Tyr Thr Lys Thr Ser Thr Leu Thr Gly Thr Val Thr Met Thr Ile
            20                  25                  30
Pro Lys Asn Lys Trp Gly Ala Ile Val Ser Asn Pro Leu Thr His Arg
        35                  40                  45
Lys Arg Gly Tyr Ile Phe Thr Gly Ser Pro Gly Arg Gly Gln Phe Glu
    50                  55                  60
Tyr Tyr Gln Ala Asp Ser Phe Thr Asp Glu Thr Tyr Arg Tyr Lys Asp
65                  70                  75                  80
Gly Ser Leu Asn Trp Val Lys Gly Val Val Thr Thr Cys Leu Arg Asp
                85                  90                  95
Thr Tyr Pro Val Lys Arg Cys Val Gly Gln Gly Glu Leu Lys
            100                 105                 110
```

<210> 32745
<211> 252
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (52),(57),(81)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32745

```
Glu Ser Gly Val Pro Thr Ser Cys Gln Ile Ser Ile Gln Asp His Lys
1               5                  10                  15
Gly Arg Thr Arg His Phe Leu Ile Ala Trp Thr Gly Glu Lys Glu Met
            20                  25                  30
Ile Asp Ser Phe Glu Arg Ser Ser Ala Met Val Thr Val Ser Leu Gln
        35                  40                  45
Leu Ala Pro Xaa Glu Thr Ser Ile Xaa Ser Leu Glu Lys Ser Gly Ser
    50                  55                  60
Cys Asp Leu Thr Lys Leu Thr Lys Thr Ala Ser Ser Ser Thr Ile Arg
65                  70                  75                  80
Xaa Tyr Gly Ile Ala Asn Leu Thr Arg Trp Asp Leu Ser Ile Glu Asp
                85                  90                  95
Phe His Ala Pro His Ser Arg Phe Gln Val Gln Thr Ala Ile Thr Ser
            100                 105                 110
His Asn Phe Ser Asn Ile Ala Ile Arg Pro Trp Ser Ala Ile Ser Pro
        115                 120                 125
Glu Leu Ala Lys Val Gly Gly Ile Gly Arg Tyr Ser Thr Ser Phe Thr
    130                 135                 140
Val Pro Ser Val Ser Arg Ile Arg Gly Lys Leu Ser Leu Gly Pro Ile
145                 150                 155                 160
Ile His Thr Ala Arg Val Tyr Ile Gly Gly Gln Arg Leu Pro Pro Ile
                165                 170                 175
Asp Pro Val Asn Pro Val Ile Asp Ile Ser Ser Tyr Ile Arg Pro Gly
            180                 185                 190
Gln Thr Tyr Lys Leu Ile Val Glu Val Thr Thr Pro Leu Phe Asn Arg
        195                 200                 205
Ile Lys Thr Asp Ala Asn His Thr Lys Ile Ala Gly Ser Thr Ala Val
    210                 215                 220
Glu Leu Gln Pro Leu Tyr Ala Ser Thr Pro Tyr Gln Glu Tyr Gly Leu
225                 230                 235                 240
```

```
Met Gly Pro Val Val Val Thr Trp Ser Ile Ser Thr
                245                 250

<210> 32746
<211> 67
<212> PRT
<213> A.fumigatus

<400> 32746
Asn Arg Pro Cys Val Gln Ala Glu Thr Gln Ala Tyr Pro Gln Ala Val
1               5                  10                  15
Ser Thr Pro Ser Leu Ala Phe Ile Ser Thr Leu Leu Ile Cys Lys Leu
            20                  25                  30
Thr Thr Glu Ile Asn Phe Gln Ile Ser Arg Gln Leu Gly Pro Gln Gln
        35                  40                  45
Gln Thr Leu Arg Pro Val Gly Asn Ser Arg Asp Ser Ile Phe Tyr Leu
    50                  55                  60
Thr Leu Pro
65

<210> 32747
<211> 232
<212> PRT
<213> A.fumigatus

<400> 32747
Phe Pro Gln Arg Val Gly His Glu Leu Thr Ser Val Ser Ser Ala Ala
1               5                  10                  15
Leu Leu Thr Arg Pro Thr Cys Ser Gln Phe Asn Thr Leu Ile Asp Gln
            20                  25                  30
Lys Val Arg Leu His Phe Ala Ser Ala Ser Leu Asp Arg Thr Ala Ile
        35                  40                  45
Asn Ile Val Tyr Ser His Val Leu Asn Pro Met Val Val Thr Arg Ser
    50                  55                  60
Tyr Met Cys Ile Glu Pro Ile Glu Leu Trp Leu Asp Leu Arg Ser Leu
65                  70                  75                  80
Arg Gln Gly Leu Val Cys Pro Val Asp Ala Asp Thr Asp Pro Thr Ala
                85                  90                  95
Leu Leu Val Gln Asp Ser Gly Met Val Pro Val Asn Thr Gln Val Ala
            100                 105                 110
Ile Val Asn Pro Glu Thr Cys Thr Leu Ser His Val Gly Glu Tyr Gly
        115                 120                 125
Glu Ile Trp Ile Gln Ser Asp Ala Cys Ala Lys Ala Phe Tyr Gly Ser
    130                 135                 140
Arg Asn Asp Phe Asp Ala Glu Arg Phe Asn Gly Arg Ile Val Asp Gly
145                 150                 155                 160
Asp Pro Asn Val Ala Tyr Val Arg Thr Gly Asp Leu Gly Phe Leu His
                165                 170                 175
Thr Val Thr Arg Pro Ile Gly Pro Ser Gly Gln Pro Val Glu Met Gln
            180                 185                 190
Val Leu Phe Val Leu Gly Gly Ile Gly Glu Thr Phe Glu Val Asn Gly
        195                 200                 205
Leu Asn His Phe Pro Met Asp Ile Glu Asn Ser Val Glu Lys Cys His
    210                 215                 220
Arg Asn Val Val Pro Gly Gly Trp
225                 230
```

<210> 32748
<211> 313
<212> PRT
<213> A.fumigatus

<400> 32748
Pro Leu Gln Phe Ser Cys Val Phe Gln Ala Gly Gly Leu Ile Val Val
1 5 10 15
Val Val Glu Val Thr Arg Lys Ala Tyr Leu Ala Ser Leu Val Pro Val
20 25 30
Ile Val Asp Ala Ile Leu Gly Glu His Gln Val Ile Ala Asp Ile Val
35 40 45
Ala Phe Val Ser His Gly Asp Phe Pro Arg Ser Arg Leu Gly Glu Lys
50 55 60
Gln Arg Gly Lys Val Leu Ala Ser Trp Val Thr Arg Arg Leu Arg Thr
65 70 75 80
Ile Ala Gln Phe Ser Ile Arg Asp Met Glu Gly Ser Met Asn Leu Phe
85 90 95
Ala Glu Ala Pro His His Arg Ser Ser Lys Gly Ser Lys Pro Gly Ser
100 105 110
Val Met Gly Asn Ser Leu Arg Arg Ser Thr Leu Val Pro Glu Ala Asp
115 120 125
Ser Ala Thr Val Pro Arg Ser Pro Ala Pro Val Leu Val Glu Gln Pro
130 135 140
Gln Glu Ser Met Val Pro Gln Tyr His Asp Val His Glu Arg Ala Gly
145 150 155 160
Gly Glu Met Leu Ala Pro Pro Leu Pro Asp Val Gln Leu Ser Leu Pro
165 170 175
Gln Ile Glu Asp Pro Val Pro Pro Met Arg Ser Ser Asn Asn Glu Ser
180 185 190
His Ser Ala Gly Ile Ala Gln Pro Asp Leu Gly Phe Asn Phe Gly Asp
195 200 205
Phe Ala Asn Ala Thr Gly Ser Thr Pro Met Asp Glu His Thr Gly Ala
210 215 220
Gly Ala Val Gly Glu Thr Leu Pro Tyr Arg Asp Val Arg Gly Gln Gly
225 230 235 240
Ser Ile Pro Thr His Gln Pro Pro Arg Thr Ser Ser Leu Pro Ile Gly
245 250 255
Thr Ala Pro Ala Ser Gly Arg Pro Asp Ser Ser Asp Arg Leu Ser Glu
260 265 270
Asp Lys Met Gly Asp Trp Pro Gln Glu Ala Leu Met Tyr Gln Ser Ala
275 280 285
Leu Gly Gly Asp Asp Pro Tyr Gly His Asn Ala Val Asp Trp Thr Pro
290 295 300
Gly Asp Ala Thr Arg Asn Tyr Arg Asp
305 310

<210> 32749
<211> 86
<212> PRT
<213> A.fumigatus

<400> 32749
Leu Gly Ala Pro Thr Tyr Leu Val Ser Pro Val Asp Phe Ala Gln Asn
1 5 10 15

```
Pro Met Thr Leu Phe Val Ala Leu Ser Arg Tyr Lys Ile Lys Asp Thr
            20                  25                  30
Tyr Ala Thr Ser Gln Met Leu Asp Tyr Ala Met Ser Val Met Pro Ala
        35                  40                  45
Lys Gly Phe Gln Leu Gln Glu Met Lys Asn Leu Met Ile Ser Ala Glu
    50                  55                  60
Gly Arg Pro Arg Thr Asp Ile Cys Lys Phe Arg Gly Ser Ser His Pro
65                  70                  75                  80
Ser Asn Leu Phe Ser Ile
                85
```

<210> 32750
<211> 240
<212> PRT
<213> A.fumigatus

<400> 32750

```
Leu Pro Pro Trp Cys Val Gln Pro Asn Gln Ile Leu His Met Leu Val
1               5                   10                  15
Leu Pro Gln Leu Arg Ser Thr Leu Ile Asn Asn Ile Asn Asn His Arg
            20                  25                  30
Asn Tyr Ser His Gly Pro Cys Arg Arg Trp Arg His His Arg His His
        35                  40                  45
Arg His His Arg His His Arg His His Arg Gln Ser Leu Ser Arg Asp
    50                  55                  60
Pro His Leu Asn Pro Ile Leu Arg Asn Lys Tyr Asn Leu Pro Leu Ile
65                  70                  75                  80
Pro Ser Leu Gly Arg Thr Leu Arg Pro Lys Tyr Asn Cys Lys His Ser
                85                  90                  95
Pro Arg Arg Ser Arg Asn Gln Ser Pro Asp Pro Arg Phe Lys Phe Val
            100                 105                 110
Gln Arg His Ser Arg Leu Leu Lys Gln Ser Arg His Arg Ala His Gln
        115                 120                 125
Pro Ile Trp Ser Gly Glu Asp Leu Gly Asp Arg Gln Arg Ala Leu Arg
    130                 135                 140
Leu Arg Leu Gln Tyr Gln Ser Leu Pro Arg Phe Arg Ile Arg Ser Thr
145                 150                 155                 160
Arg Val Ala Gly Arg Ser Ala Lys Arg Ser Cys Thr Ile Leu Lys Cys
                165                 170                 175
Ser Arg Ser Thr Phe Leu Lys Phe Thr Cys Leu Thr Arg Ser Arg Val
            180                 185                 190
Asn Gly Lys Thr Ala His Phe Ala Arg Thr Tyr Arg Arg Cys Asn Cys
        195                 200                 205
Thr Ser Met Ser Phe Gln Asn Met Trp Cys Leu Ser His Gly Arg Trp
    210                 215                 220
Ala Met Asp His Gln Cys Leu Gln Leu Val Arg Glu Tyr Arg Asp Asp
225                 230                 235                 240
```

<210> 32751
<211> 545
<212> PRT
<213> A.fumigatus

<400> 32751

```
Thr Val Pro Ser Ile Ala Pro Gln Arg His Cys Leu Pro Asn Met Ala
1               5                   10                  15
```

```
Asn Asp Tyr Phe Glu Arg Leu Gln Asn His Arg Glu Thr Gly Pro Ser
            20                  25                  30
Gln Phe Pro Gln Gln Asn Gln Tyr Ala Ser Phe Arg Ser Pro Phe Gln
        35                  40                  45
Arg Tyr Pro Asp Ala Val Leu Asp Leu Pro Pro Thr Tyr Gln Thr Pro
    50                  55                  60
Leu Ser Asp Ile His Gln Pro Tyr His Tyr Gln Thr His Tyr Ala Pro
65                  70                  75                  80
Leu Glu Gln Tyr Val Arg Pro Gln Asp Thr Thr Tyr Ser Ser Leu Thr
                85                  90                  95
Thr Tyr Pro Leu Ile Pro Tyr Gln Gly Gly Gln Gln Tyr Arg Ala Asn
            100                 105                 110
Pro Pro Ala Thr Thr His Gln Pro Pro Pro Ala Pro Pro Leu Ser Thr
        115                 120                 125
Leu Ser Gln Pro Leu Pro Trp Asn His Ala Gln Thr Gln Pro Gln Asn
    130                 135                 140
Thr Leu Ser Tyr Leu Asn Tyr Pro Pro Ser Thr Arg Ala Ala Glu Val
145                 150                 155                 160
Val Asp Val Asp Val Ser Gly His Asp Gly Lys Arg Arg Arg Leu Glu
                165                 170                 175
Ser Ser Ala Thr Val Thr Leu Ser Lys Pro Thr Met Pro Pro Gln Gly
            180                 185                 190
Arg Leu Ser Lys Tyr Ser Phe Thr Pro Gln Asp Thr Thr Asp Arg Ser
        195                 200                 205
Tyr Leu Lys Thr Arg Ala Asp Ile Ala Lys Pro Leu Asp Val Thr Asp
    210                 215                 220
Ala Ala Glu Lys Leu Gln Tyr Asp Pro Lys Thr Ile Ala Arg Asp Val
225                 230                 235                 240
Leu Ile Ala Ser Gly Arg His Pro Thr Glu Ala Pro Leu Asn His His
                245                 250                 255
Leu Phe Arg Leu Arg Asp Val Phe Thr Gly Leu Asp Thr Ala Ser Asp
            260                 265                 270
Leu Glu Thr Phe Arg Trp Asp Leu Val Asp Pro Asp Asp Lys Gln Ala
        275                 280                 285
Asn Asn Thr Thr Thr Ala Arg Asp Val Gln Leu Leu Ser Ala Pro Ala
    290                 295                 300
His Val Thr Ser Ala Met Val Arg Pro Ala Gln Pro Asn Pro Pro Tyr
305                 310                 315                 320
Ala Gly Val Thr Ala Thr Pro Gln His Pro His Gln Gln Tyr Gln Gln
                325                 330                 335
Pro Ser Gln Leu Gln Pro Arg Pro Leu Gln Thr Leu Glu Thr Ser Gln
            340                 345                 350
Thr Ser Gln Thr Ser Gln Thr Ser Gln Thr Ser Gln Thr Val Pro Glu
        355                 360                 365
Gln Arg Ser Ser Ser Gln Pro Asn Ser Gln Lys Gln Val Gln Pro Pro
    370                 375                 380
Ser Asp Pro Gln Pro Arg Ser His Pro Ser Pro Gln Val Gln Leu Gln
385                 390                 395                 400
Ala Gln Pro Pro Ser Gln Pro Gln Pro Lys Pro Gly Pro Ser Ile Gln
                405                 410                 415
Ile Arg Thr Lys Thr Gln Pro Pro Pro Lys Ala Lys Ser Ser Pro Arg
            420                 425                 430
Ser Ser Thr Asn Met Val Gly Arg Arg Pro Gly Arg Pro Pro Ala Ser
        435                 440                 445
Ser Lys Ile Glu Val Thr Ile Pro Ile Thr Ser Gln Ile Pro Tyr Lys
    450                 455                 460
```

```
Val Tyr Thr Cys Gly Trp Glu Lys Cys Gln Ala Glu Leu His Asn Leu
465                 470                 475                 480
Glu Met Leu Lys Lys His Ile Phe Lys Ile His Val Pro Tyr Thr Leu
                485                 490                 495
Thr Cys Gln Trp Lys Asp Cys Thr Phe Arg Glu Asn Leu Pro Ala Val
            500                 505                 510
Gln Leu Tyr Lys His Val Leu Ser Glu His Val Val Ser Ile Ala Trp
        515                 520                 525
Thr Leu Gly Asp Gly Pro Ser Val Pro Ala Thr Gly Glu Arg Ile Ser
    530                 535                 540
Arg
545
```

<210> 32752
<211> 129
<212> PRT
<213> A.fumigatus

<400> 32752

```
Leu Asn Leu Cys Phe Phe Phe Ser Phe Leu Phe Phe Cys Phe Val Ala
1               5                   10                  15
Gln Trp Val Arg Trp Leu Thr Thr Phe Ile Phe Thr Cys His Leu Glu
            20                  25                  30
Asp Arg Val Ala Gly Glu Ser Pro Leu Pro Lys Thr Ile Pro Glu Ser
        35                  40                  45
Thr Gln Pro Gly Gly Glu Asp Ser Leu Val Phe Pro Ala Ser Tyr Ser
    50                  55                  60
Ser Ile Arg Ala Phe Asn Arg Val His Gly Asn His Thr Gln Ile Glu
65                  70                  75                  80
Lys Ala Arg Glu Ile Phe Lys Ala Val Gln Arg Leu Lys Glu His Ile
                85                  90                  95
Gly Tyr Gly Leu Asp Pro Gly Gly Cys Gln Leu Ala Thr Pro Thr Arg
            100                 105                 110
Ile Gly Arg Val Ser Asn Asp Glu Asp Val Tyr Ala Val Arg His Glu
        115                 120                 125
Ser
```

<210> 32753
<211> 80
<212> PRT
<213> A.fumigatus

<400> 32753

```
Tyr His Asp Ser Ser Met Trp Arg Val Ser Glu Ala Met Leu Leu Gly
1               5                   10                  15
Pro Ser Asn Arg Leu Pro Gly Tyr Leu Ser Trp Lys Leu Glu Glu Asp
            20                  25                  30
Ser Leu Ser Ser Val Ser Gln Val Gln Glu Ser Gly Met Ile Ile Ile
        35                  40                  45
Gly Ser Val Ser Ser Ser Leu Asp Asp Tyr Asp Leu Val Arg Arg Thr
    50                  55                  60
Glu Pro Asn Ser Leu Gly Gly Cys Gln Asp Arg Ala Ile Ser Pro Ser
65                  70                  75                  80
```

<210> 32754

<211> 136
<212> PRT
<213> A.fumigatus

<400> 32754
Pro Pro Leu Gln Arg Leu Pro Gly Gly Phe Gly Val His Leu Ala Pro
1 5 10 15
Arg Arg Leu Pro His Ala His Arg Leu Leu Gly Arg Gln Val His Ala
20 25 30
Arg Pro Ala Asp Pro Gln Arg Ala Gly Pro Glu Ser Leu Leu His Leu
35 40 45
Leu Gln Arg Pro Gln His Arg His Gln Gln Pro Asp His Arg Arg Leu
50 55 60
Pro Gly Leu Ser Arg Pro Gly Ser Ala Gly Arg Pro Arg His Arg Gly
65 70 75 80
Tyr His Pro Leu Arg Pro Leu Ala Gly Arg Arg Pro Arg Pro Arg Pro
85 90 95
Asp His Arg Val Ala Val Gln Ala Gly Arg Gln Pro Trp Leu Arg Gly
100 105 110
Arg Arg Ala Pro Gly Pro Pro Gly Arg Trp Leu Arg Leu Ser Glu Pro
115 120 125
Pro Val Cys Asp Val Pro Arg Val
130 135

<210> 32755
<211> 390
<212> PRT
<213> A.fumigatus

<400> 32755
Gln Ser Arg Asn Asn Phe Thr Ile Thr Pro Thr Trp Ala Thr Pro Gly
1 5 10 15
Tyr Asn Pro Gly Ala Ile Glu Pro Gly Ile Trp Asn Val Val Leu Gly
20 25 30
Pro Tyr Glu Ser Val Pro Asp Gly Ile Asp Trp Gln Leu Asp Ile Glu
35 40 45
Met Ser Phe Asp Pro Val Asp Ser Trp Phe Ala Pro Asp Tyr Ala Thr
50 55 60
Thr Asp Leu Asp Pro Leu Cys Asn Gly Cys Gln Glu Asp Ser Ala Phe
65 70 75 80
Thr Trp Leu Arg Gly Asp Phe His Met His Thr Val Tyr Ser Asp Gly
85 90 95
Lys Tyr Thr Pro Asp Gln Gln Ile His Asn Ala Leu Ala Gln Asn Leu
100 105 110
Ser Phe Ile Phe Phe Ser Asp His Asn Thr Asp Thr Ser Asn Gln Ile
115 120 125
Ile Gly Ala Tyr Gln Ala Ser Leu Ala Pro Asp Leu Leu Val Gly Arg
130 135 140
Ala Ile Glu Val Thr Thr Arg Ser Gly His Trp Gln Ala Val Gly Leu
145 150 155 160
Asp Arg Gly Gln Ile Ile Glu Trp Arg Tyr Lys Pro Asp Asp Asn Pro
165 170 175
Gly Phe Ala Ala Ala Ala His Gln Val His Arg Val Gly Gly Phe Val
180 185 190
Ser Ala Asn His Pro Phe Ala Thr Cys Pro Ala Cys Asn Trp Ser Leu
195 200 205

```
Gly Trp Glu Glu Thr Asp Ala Val Glu Val Trp Asn Ala Gln Trp Asp
    210                 215                 220
Glu Gln Asp Gln Gln Ala Val Gln Lys Trp Gln Glu Leu Leu Val Asp
225                 230                 235                 240
Gly Lys Phe Leu Thr Ala Ile Gly Gly Ser Asp Ser His Ser Pro Pro
                245                 250                 255
Ser Leu Asn Gly Trp Pro Thr Thr Ile Val Lys Ala Arg Gly Arg Ser
            260                 265                 270
Gln Ala Ala Ile Val Glu Gly Val Lys Ala Gly Arg Ala Tyr Leu Val
        275                 280                 285
Gln Gly Pro Gly Met Asp Leu Thr Phe Glu Val Arg Val Pro Ser Leu
    290                 295                 300
Asp Ala Pro Ala Gln Ile Gly Asp Lys Val Arg Arg Thr Ala Ala Gly
305                 310                 315                 320
Ala Lys Ala Val Leu Val Thr Asp Gly Met Ser Lys Leu Lys Ala Cys
                325                 330                 335
Phe Val Ser Asp Lys Gly Tyr Phe Tyr Asn Thr Thr Ile Glu Asp Gly
            340                 345                 350
Val Arg Val Lys Thr Gly Val Leu Ser Gly Ala Arg Phe Val Arg Val
        355                 360                 365
Glu Val Arg Asn Gly Thr Thr Asp Glu Val Leu Ala Leu Thr Asn Pro
    370                 375                 380
Val Trp Phe Leu Gly Pro
385                 390

<210> 32756
<211> 356
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (55),(113)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32756
Lys Gln Phe Pro Lys Met Lys His Ile Cys Ser Ile Ala Trp Leu Val
1               5                   10                  15
Pro Leu Leu Glu Leu Ala Ile Ala Ala Arg Ala Pro Ile Lys Lys Thr
            20                  25                  30
Leu Thr Gly His Ile Asp Pro Ser Gln Val Phe Ser Phe Val Tyr Val
        35                  40                  45
Pro Phe Glu Val Glu Val Xaa Thr Thr Ser Ile Tyr Val Val Gln Asn
    50                  55                  60
Tyr Ser Asn Lys Gly Arg Gly Asn Ala Leu Asp Leu Gly Val Phe Asp
65                  70                  75                  80
Gln Arg Gly Tyr Gln Met Met Asp Ala Gln Ser Gly Thr Thr Gly Phe
                85                  90                  95
Arg Gly Trp Ser Gly Gly Phe Arg Tyr Val Cys Pro Arg Leu Ser Leu
            100                 105                 110
Xaa Trp Phe Leu Leu Asp Lys Val Glu Thr Thr Ser Pro Ser Arg Pro
        115                 120                 125
Pro Gly Pro Arg Pro Ala Thr Ile Pro Ala Pro Ser Ser Gln Ala Ser
    130                 135                 140
Gly Thr Ser Cys Ser Ala His Thr Asn Pro Ser Pro Thr Val Ser Thr
145                 150                 155                 160
```

```
Gly Ser Trp Ile Ser Lys Cys Pro Ser Thr Pro Ser Thr Arg Gly Ser
                165                 170                 175
Pro Gln Thr Thr Pro Pro Pro Thr Leu Thr Pro Ser Ala Thr Ala Ala
            180                 185                 190
Arg Arg Ile Arg Arg Ser Pro Gly Ser Ala Ala Thr Ser Thr Cys Thr
        195                 200                 205
Pro Ser Thr Arg Thr Ala Ser Thr Arg Pro Thr Ser Arg Ser Thr Thr
    210                 215                 220
Arg Trp Pro Arg Ile Ser Pro Ser Ser Ser Ser Ala Thr Thr Thr Pro
225                 230                 235                 240
Thr Pro Ala Thr Arg Ser Ser Ala Pro Thr Arg Pro Leu Ser Pro Arg
                245                 250                 255
Ile Cys Trp Ser Ala Ala Pro Ser Arg Leu Pro Pro Ala Pro Ala Thr
            260                 265                 270
Gly Arg Pro Ser Ala Ser Thr Ala Ala Arg Ser Ser Ser Gly Gly Thr
        275                 280                 285
Ser Arg Thr Thr Thr Leu Ala Ser Arg Pro Pro Arg Thr Arg Ser Thr
    290                 295                 300
Gly Ser Val Ala Ser Ser Gln Arg Thr Thr Arg Leu Arg Arg Ala Pro
305                 310                 315                 320
Arg Val Thr Gly Val Ser Gly Gly Lys Arg Pro Thr Pro Trp Arg Cys
                325                 330                 335
Gly Thr Arg Ser Gly Thr Ser Arg Ile Asn Arg Pro Ser Arg Ser Gly
            340                 345                 350
Arg Ser Cys Leu
        355
```

<210> 32757
<211> 69
<212> PRT
<213> A.fumigatus

<400> 32757

```
His Thr Ile His Arg Leu Val Lys Ile Cys His Ile Arg Lys Glu Ser
1               5                   10                  15
Lys Gly Asn Asn Thr Ile Ile Phe Thr Lys Leu Gln Glu Phe Asn Ser
            20                  25                  30
Glu Met Arg Ala Met Ala Ile Lys Tyr Lys Tyr Leu Phe Leu Pro Leu
        35                  40                  45
Leu Tyr Thr Leu Ile Tyr Tyr Ile Asn Lys Gly Leu His His Gly Leu
    50                  55                  60
Asp Ile Arg Ile Thr
65
```

<210> 32758
<211> 63
<212> PRT
<213> A.fumigatus

<400> 32758

```
Arg Asn Ala Asp Val Glu Ala Val Val Lys Thr Phe Ile Asn Val Ile
1               5                   10                  15
Asn Glu Cys Ile Lys Lys Gly Glu Lys Gln Ile Leu Ile Phe Asp Gly
            20                  25                  30
His Gly Ser His Leu Thr Val Glu Phe Leu Gln Leu Cys Glu Asp Tyr
        35                  40                  45
```

```
Ser Val Ile Pro Phe Arg Phe Leu Pro Tyr Met Thr Tyr Leu Tyr
    50                  55                  60

<210> 32759
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32759
Glu Ala Glu Tyr Pro Tyr Leu Asn Pro Tyr Pro Pro Ser Glu Pro Cys
1               5                  10                  15
Ile Asn Gln Leu Ile Leu Ala Cys Tyr Thr Ser Tyr Thr Ser Ala Ile
            20                  25                  30
Thr Gln Ala Ser Ile Leu Ser Gln Glu Ala Pro Lys Thr Thr Ile Ser
        35                  40                  45
Lys Pro Phe Asp Ala Phe Lys Ile Ser Tyr Pro Ala Ala Tyr
    50                  55                  60

<210> 32760
<211> 83
<212> PRT
<213> A.fumigatus

<400> 32760
Ile Leu Ser Arg Asp Leu Arg Gly Val Pro Pro Arg Pro Ser His Val
1               5                  10                  15
Gln Glu Met Ala Asn Ile Leu Leu Gln Thr Asp Asn Pro Ser Gly Phe
            20                  25                  30
Lys Pro Ile Gly Lys Asn Trp Val Ser Thr Phe Ile Lys Arg Arg Asp
        35                  40                  45
Glu Ile Lys Thr Gln Tyr Ala Arg Arg Tyr Asn Tyr Ser Arg Ala Gln
    50                  55                  60
Cys Glu Asp Pro Lys Val Ile Lys Gly Trp Phe Asn Cys Leu Gln Gln
65                  70                  75                  80
Ile Gln Met


<210> 32761
<211> 290
<212> PRT
<213> A.fumigatus

<400> 32761
Lys Val Phe Ile Pro Ala Thr Ala Ser Arg Thr Val Gly Arg Tyr Arg
1               5                  10                  15
Leu Leu Ile Leu Asp Gly His Gly Ser His Leu Thr Pro Gly Phe Asp
            20                  25                  30
Lys Ala Cys Arg Asp Asn Asp Ile Ile Ala Ile Cys Met Pro Ala His
        35                  40                  45
Ser Ser His Leu Leu Gln Pro Leu Asp Val Gly Cys Phe Gly Pro Leu
    50                  55                  60
Lys Arg Ala Tyr Gly Gly Leu Val Glu Gln Lys Met Arg Leu Gly Tyr
65                  70                  75                  80
Asn His Ile Asn Lys Phe Asp Phe Leu Lys Ala Tyr Pro Ala Ala His
                85                  90                  95
Leu Glu Val Phe Thr Pro Leu Asn Ile Gln Asn Gly Phe Ala Ala Ala
```

```
            100                 105                 110
Gly Ile His Pro Leu Lys Pro Glu Arg Val Leu Glu Lys Leu Asn Ile
        115                 120                 125
His Ile Ser Thr Pro Thr Pro Pro Ser Arg Ala Ser Thr Asn Ser
    130                 135                 140
Ser Trp Leu Ala Thr Pro His Thr Leu Arg Gln Leu His Lys Gln Ala
145                 150                 155                 160
Ser Ser Val Lys Lys Leu Leu Lys Gln Arg Ser Gln Ser Pro Leu Thr
                165                 170                 175
Pro Ser Lys Leu Ala Ile Gln Gln Leu Ile Lys Gly Cys Glu Met Ala
            180                 185                 190
Met His Asn Ala Ala Leu Leu Ala Lys Glu Asn His Asp Leu Arg Ala
        195                 200                 205
Ala Asn Glu Lys Glu Lys Gln Lys Arg Lys Gln Ser Arg Arg Gln Met
    210                 215                 220
Thr Pro Asn Glu Gly Leu Ser Ile Gln Glu Ala Arg Asp Leu Ile Gln
225                 230                 235                 240
Ala Arg Asn Glu Gln Gly Asn Glu Val Glu Gly Ser Ser Ile Asp Ser
                245                 250                 255
Ala Pro Leu Pro Leu Glu Pro Pro Lys Arg Ala Pro Pro Arg Cys Ser
            260                 265                 270
Asn Cys Phe Ile Ile Gly His Thr Arg Val Arg Cys Pro Thr Arg Asn
        275                 280                 285
Thr Ser
    290
```

<210> 32762
<211> 752
<212> PRT
<213> A.fumigatus

<400> 32762

```
Lys Lys Asp Thr Glu Arg Pro Ser Asp Leu Val Lys Ser Ala Thr Ala
1               5                   10                  15
Arg His Arg Lys Gly Asn His Ala Thr Pro Ile Val Gln Ile Glu Ser
            20                  25                  30
Asn Glu Pro Ser Lys Ser Ala Asn Pro Thr Thr Lys Ala Ser Ala Lys
        35                  40                  45
Gln Ser Pro Gly Leu Lys His Glu His Phe Pro Ser Lys Asp Glu Pro
    50                  55                  60
Pro Val Pro Glu Pro Val Asp Lys Met Leu Cys Arg Phe Gln Gly Gln
65                  70                  75                  80
Arg Gly Lys Glu Tyr His Ser Ala Gln Asn Lys Arg Arg Lys Leu Asp
                85                  90                  95
Val Ser Gln Lys Lys Gln Gly Leu Asp Gln Asp Val Ser His Leu Leu
            100                 105                 110
Gln Asp Ser Ser Ser Arg Ile Ala Pro Arg Asp Lys Arg Asp Leu Ser
        115                 120                 125
Ala Val Thr Asp Met Ser Tyr Thr Asp Glu Lys Arg Phe Val Asp Gln
    130                 135                 140
Ser Asp Leu Lys Leu Gln Ile Gly Gly Gln Asn Leu Gln Gln Ala Lys
145                 150                 155                 160
Ser Tyr Gly Ser Ser Gly Arg Asn Lys Val Ser Thr Ala Met Pro Tyr
                165                 170                 175
Leu Gln Ser Thr His Met Glu Gln Thr Lys Ser Lys Asn Lys Thr Leu
            180                 185                 190
```

```
Ser Ile Ala Ala Asp Phe Ala Thr Ser Arg Ser Gln Phe Gln Ser Asn
        195                 200                 205
Ser Lys Ala Glu Thr Ser Thr Gln Val Thr Ala Arg Arg Arg Leu Val
    210                 215                 220
Asp Ser Leu Gly Pro Leu Glu Pro Thr Val Glu Asp Ala Val Arg Ala
225                 230                 235                 240
Ser Arg Thr Asn Asp Asp Thr Glu Val Asp Pro Leu Pro Arg His Ser
                245                 250                 255
Pro Arg Arg Asp Ser Ser Ser Asn Ser Gln Pro Gln Thr Ser Ser Arg
            260                 265                 270
Pro Val Lys Leu Val Thr Asp Ser Ala Asn Lys Gly Thr Ala Glu Thr
        275                 280                 285
Ser Gly Pro Val Ser Ser Arg Val Gly Gly Cys Lys Val Thr Tyr Ala
    290                 295                 300
Arg Gln Arg Ser Phe Leu Asp Asp Thr Ser Ile Val Asp Ser Arg Arg
305                 310                 315                 320
Pro Ser Glu Thr Leu Ala Ser Thr Ala Asp Ser Phe Val Gln Gly His
                325                 330                 335
Arg Lys Tyr Gly Pro Gln Ile Leu Ser Asn His Ala Ser His Leu Gly
            340                 345                 350
Asp Gly Glu Thr Ser Asp Ser Gly Pro Val Arg Gly Ile His Glu Leu
        355                 360                 365
Arg Gln Ala Gly Asp Asn Ser Arg Phe Arg Ser Ala Ile Glu Leu Ile
    370                 375                 380
Phe Glu Asp Ile Glu Asp Ala Tyr Asn Thr Thr Ser Gly Arg Cys Ser
385                 390                 395                 400
Ser Phe Val Gln Ile Cys Glu Lys Leu Leu Asp Arg Gln Phe Val Arg
                405                 410                 415
Arg Phe Leu Glu His Gly Phe His Glu Arg Leu Val Gly Cys Ile Asp
            420                 425                 430
Asp Arg Leu Asp Val Val Ser Ala Ser Phe Ala Leu Cys Ala Cys Gly
        435                 440                 445
Leu Ile Asn Leu Cys Asp Lys Leu Ser His Ile Ser Leu Ile Ser His
    450                 455                 460
Trp Ser Asn Val Leu Val Leu Ser Pro Val Leu Leu Pro Val Lys Arg
465                 470                 475                 480
Asp Leu Leu Ser Leu Ser Gln Ser Pro Ala Thr Gly Leu Ser Arg Ser
                485                 490                 495
Val Gln Met Ser Ile Lys Gln Val Leu Pro Arg Leu Ser Ser Ser Ile
            500                 505                 510
Ser Gly Asp Glu Pro Ala Phe Glu Leu Ser Pro Gln Phe Val Ala Leu
        515                 520                 525
Ser Ser Ile Gln Ser Cys Leu Val Ser Leu Asn Asn Lys Gly Gly Ser
    530                 535                 540
Ile Glu Pro Ile Pro Ala Thr Leu Ser Asp His Ile Val Lys Leu Leu
545                 550                 555                 560
Leu Pro Glu Arg Gly Lys Thr Ile Lys Leu Pro Val Ser Arg Glu Arg
                565                 570                 575
Phe Lys Thr Leu Ala Leu Ile Phe Ser Ile Leu Glu Ser Tyr Ala Ile
            580                 585                 590
Val Phe Ser Ala Ala Asp His Asp Gln Asn Tyr Leu Ser Leu Arg Thr
        595                 600                 605
Leu Ser Arg Leu His Glu Ile Leu Asn Leu Ser Gln Cys Asn Gln Gly
    610                 615                 620
Arg Gln Leu Arg Met Tyr Tyr Ile Arg Ala Ile Leu Asn Leu Thr Asn
625                 630                 635                 640
```

```
Asn Asp Pro Asn Leu Cys Asn Glu Tyr Ala Thr Pro Glu Leu Val Met
                645                 650                 655
Gly Leu Val Asn Ile Val Met Ser Asp Ile Arg Asp Ala Ser Asp Asn
            660                 665                 670
Ser Ser Thr Gly Asp Asp Ser Ser Leu Asn Thr Leu Ile Leu Val Leu
        675                 680                 685
Gly Val Leu Ile Asn Met Thr Glu Lys Ser Glu Ser Ala Arg Asp Leu
    690                 695                 700
Phe Leu Arg Leu Thr Leu Asp Ser Thr Pro Leu Ile Gln Ser Leu Leu
705                 710                 715                 720
Glu Arg Phe Tyr Glu Met Val Asn Ser Val Ser Glu Val Trp Lys Arg
                725                 730                 735
Ser Lys Gln His Val Ala Phe Lys Phe Val Leu Leu Ile Thr Met Ser
            740                 745                 750
```

<210> 32763
<211> 123
<212> PRT
<213> A.fumigatus

<400> 32763

```
Thr Met Ala Ser Ser Gln Arg Gln Tyr Asn Thr Leu Pro Ser Ser Gly
1               5                   10                  15
Ser Ile Ala Ala Pro Pro Leu Ser Glu Asn Gly Ser Asn Val Tyr Glu
            20                  25                  30
Asp Asp Ile Arg Arg Pro Leu Leu Gly Ser Ser Ser Ser Thr Asp Leu
        35                  40                  45
Asp Gly Asn Gly Lys Lys Gly Ser Gln Ser Trp Leu Arg Ala Val Tyr
    50                  55                  60
Gly Glu Gly Lys Glu Ile Trp Leu Gln Gly Lys Gly Met Ile Leu Val
65                  70                  75                  80
Thr Leu Ala Gln Phe Phe Gly Ala Ser Met Asn Val Met Thr Gln Ile
                85                  90                  95
Leu Glu Leu Asp Ser Gly Leu His Pro Phe Gln Val Gly Ser Ile Ser
            100                 105                 110
Ala Thr Ser Ala Gly Cys Ser Ala Thr His Cys
        115                 120
```

<210> 32764
<211> 320
<212> PRT
<213> A.fumigatus

<400> 32764

```
Ile Leu Phe Ala Arg Met Ser Val Thr Val Val Ala Ser Tyr Leu Tyr
1               5                   10                  15
Met Trp Tyr Thr Lys Val Pro His Pro Phe Gly Thr Arg Pro Val Leu
            20                  25                  30
Gly Leu Leu Ile Phe Arg Ala Met Gly Gly Phe Phe Gly Val Tyr Ser
        35                  40                  45
Ile Tyr Tyr Ala Val Gln Tyr Leu Pro Leu Ser Glu Ala Thr Val Leu
    50                  55                  60
Thr Phe Leu Ala Pro Ile Leu Cys Cys Tyr Ala Cys Ser Leu Phe Ile
65                  70                  75                  80
Pro Asn Glu Thr Phe Thr Arg Arg Gln Gln Leu Ala Ala Leu Val Ser
                85                  90                  95
```

```
Met Val Gly Val Val Leu Ile Ala Arg Pro Phe Ser Ser Ser Ala Met
            100                 105                 110
Pro Pro Asn Pro Glu Lys Leu Glu Gly Arg Lys Pro Gly Thr Thr Asp
        115                 120                 125
Glu Phe Gln His Ile Val Ala Ile Leu Ala Met Met Val Gly Val Leu
    130                 135                 140
Gly Ser Thr Cys Ala Tyr Thr Ser Ile Arg Ile Ile Gly Gln Arg Cys
145                 150                 155                 160
His Pro Leu Val Ser Val Thr Tyr Phe Ser Leu Phe Thr Thr Val Met
                165                 170                 175
Ser Phe Leu Ala Met Leu Leu Val Pro Ser Val Pro Phe Lys Leu Pro
            180                 185                 190
Glu Thr Gly Leu Glu Trp Thr Leu Ile Val Gly Leu Gly Val Cys Gly
        195                 200                 205
Phe Leu Leu Gln Phe Leu Leu Thr Ala Gly Leu Ser Tyr Val Pro Pro
    210                 215                 220
Pro Pro Arg Arg Ser Gln Arg Val Ser Gly Gly Ala Gly Ser Glu Cys
225                 230                 235                 240
Lys Pro Ala Arg Ser Ser Ser Gly Ser Arg Ala Thr Ser Met Ile Tyr
                245                 250                 255
Thr Gln Met Leu Phe Ala Leu Phe Tyr Asp Lys Val Val Trp Gly Asn
            260                 265                 270
Thr Leu Ser Pro Leu Ser Trp Ala Gly Ser Ala Leu Ile Val Gly Ser
        275                 280                 285
Ala Leu Tyr Val Ala Leu Val Arg Asp Gly Lys Lys Asn Ala Ala Ala
    290                 295                 300
Ala Val Ala Val Asp Glu Thr Ala Glu Glu Glu Arg Glu Pro Val Ala
305                 310                 315                 320

<210> 32765
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32765
Leu Pro His Ala Cys Arg Ser Ser Pro Val Val Lys Ile Ser Ile Gln
1               5                   10                  15
Glu Gly Gln Glu Ile Ile Gln Arg Arg Asp Gln Ala Ala Glu Ala Ile
            20                  25                  30
Pro Thr Ile Pro Pro Glu Gln Val Val Asp Thr Glu Gln Arg Pro Gln
        35                  40                  45
Arg Ala Pro Pro Arg Cys Ser Asp Cys His Ile Leu Gly His Arg Arg
    50                  55                  60
Leu Gln Cys Pro Gln Arg Lys Asn Asn
65                  70

<210> 32766
<211> 61
<212> PRT
<213> A.fumigatus

<400> 32766
Asn Leu Ala Ala Ala Glu Ile Gly Gly Tyr Phe Glu Pro Leu Lys His
1               5                   10                  15
Asp Phe Ile Thr Lys Ser Ser Tyr Ser Cys Ala Ala Asp Ile Ala Ile
            20                  25                  30
```

```
Ala Tyr Gly Leu Glu Tyr Gly Ser His Cys Ser Val Gly Val Pro Val
        35                  40                  45
Glu Gly Val Val Leu Tyr Leu Leu Pro Ala Leu Glu Gly
    50                  55                  60
```

<210> 32767
<211> 388
<212> PRT
<213> A.fumigatus

<400> 32767

```
Val Thr Tyr Tyr Phe Arg Pro Val Leu Leu Glu Asp Pro Ser Gly Asn
1               5                   10                  15
Arg Pro Phe Tyr Arg Cys Val Leu Thr Asp Arg Leu Phe Leu Val Arg
            20                  25                  30
Phe Pro Ala Ser Ser Asp Thr Pro Asp Ser Pro Pro Leu Ser Asp His
        35                  40                  45
Pro Ile Ser Pro Leu Leu Leu Tyr Pro Ser Gly Phe Ser Lys Phe Asp
    50                  55                  60
Gln Asn Ser Glu Asn Asn Gln Ser Thr Glu Met Val Arg Asn Ile Val
65                  70                  75                  80
Val Ile Gly Gly Thr Ser His Pro Gln Leu Thr Gln Thr Ile Cys Asn
                85                  90                  95
Val Leu Gly Ile Pro Pro Ala Asp Val Leu Leu Ser Lys Phe Ala Val
            100                 105                 110
Gly Glu Thr Arg Val Glu Ile Lys Glu Ser Val Arg Glu Lys Asp Val
        115                 120                 125
Tyr Ile Ile Gln Ser Gly Gly Leu Lys Val Asn Asp Ser Leu Met Glu
    130                 135                 140
Leu Leu Ile Thr Ile Ser Ala Cys Lys Thr Ala Ser Ala Lys Arg Val
145                 150                 155                 160
Thr Ala Val Leu Pro Leu Phe Pro Tyr Ser Arg Gln Ser Asp Ile Pro
                165                 170                 175
Tyr Asn Lys Ala Gly Ala Pro Leu Val Lys Ser Ser Asn Ala Ala Lys
            180                 185                 190
Pro Gly Asn Gly Tyr Thr Phe Glu Ser Thr Pro Pro Thr Pro His Pro
        195                 200                 205
Gly Lys Pro Glu Ser Gly Gly Leu Leu Asn Asn Val Asp Ser Leu Gln
    210                 215                 220
Lys Gly Leu Ala Asn Ala Gln Leu Asp Asp Tyr Asn Asn Gly Ser Pro
225                 230                 235                 240
Val Lys Lys Arg Ile Pro Asn Gly Pro Pro Arg Ser Asp Thr Thr Glu
                245                 250                 255
Ser Leu Lys Ser Asp Val Gly Leu Arg Ser Thr Val Val Asn Gly Gln
            260                 265                 270
Ala Asn Asp Glu Asn Ile Gln Ser Lys Ile Ser Ser Phe Arg Pro Arg
        275                 280                 285
Pro Gly Tyr Lys Gln Trp Val Ala Gln Ala Gly Thr Leu Val Ala Asp
    290                 295                 300
Leu Leu Thr Cys Ala Gly Ala Asp His Ile Ile Thr Met Asp Leu His
305                 310                 315                 320
Asp Pro Gln Tyr Gln Gly Phe Phe Asp Ile Pro Val Asp Asn Leu Tyr
                325                 330                 335
Gly Arg Pro Leu Leu Lys Ser Tyr Ile Gln Gln Asn Ile Pro Asn Tyr
            340                 345                 350
Lys His Ala Val Ile Val Ser Pro Asp Ala Gly Gly Ala Lys Arg Ala
```

```
        355                 360                 365
Thr Ala Ile Ala Asp Ser Met Gly Met Glu Phe Ala Leu Ile His Lys
    370                 375                 380
Val Pro Phe Thr
385
```

<210> 32768
<211> 121
<212> PRT
<213> A.fumigatus

<400> 32768

```
Glu Arg Arg Pro Thr Lys Ile Thr Asp Arg Gln Asn Ala Thr Met Met
1               5                  10                  15
Leu Val Gly Asp Val Lys Asp Arg Thr Thr Ile Leu Ile Asp Asp Leu
            20                  25                  30
Ala Asp Thr Ser Asn Thr Ile Thr Arg Ala Ala Lys Leu Leu Lys Lys
        35                  40                  45
Glu Gly Ala Ser Gln Val Tyr Ala Leu Val Thr His Gly Ile Leu Ser
    50                  55                  60
Gly Asp Ala Ile Asp Arg Ile Asn Ala Ser Ala Leu Asp Lys Val Val
65                  70                  75                  80
Val Thr Asn Ser Val Asp Gln Ser Asp His Leu Arg Arg Cys Pro Lys
                85                  90                  95
Leu Glu Val Leu Glu Val Gly His Val Phe Ala Glu Val Ser Arg Phe
            100                 105                 110
Ser Phe Leu Thr Asn Thr Asn Met Ser
        115                 120
```

<210> 32769
<211> 156
<212> PRT
<213> A.fumigatus

<400> 32769

```
Asn Gln Ala Asp His Glu Glu Glu Glu Glu Glu Glu Glu His His Ile
1               5                  10                  15
Leu Ser Pro Leu Ala Ala Thr Ile Ala Leu Val Val Val Thr Ile Leu
            20                  25                  30
Val Ala Ile Cys Ala Asp Tyr Leu Val Gly Ser Ile Asp Ser Ile Val
        35                  40                  45
Glu Lys Thr Ser Met Ser Arg Thr Phe Ile Gly Leu Ile Leu Ile Pro
    50                  55                  60
Ile Val Gly Asn Ala Ala Glu His Val Thr Ala Val Val Val Ala Trp
65                  70                  75                  80
Lys Gly Lys Met Asp Leu Ala Ile Gly Val Ala Val Gly Ser Ser Leu
                85                  90                  95
Gln Ile Ala Leu Phe Val Thr Pro Phe Leu Val Ile Met Gly Trp Ile
            100                 105                 110
Leu Asn Val Glu Met Thr Leu Asn Phe His Ile Phe Glu Thr Val Ala
        115                 120                 125
Phe Phe Ile Ser Ser Leu Val Val Thr Phe Leu Ile Gln Asp Gly Lys
    130                 135                 140
Ser Asn Tyr Leu Glu Gly Gly Leu Cys Leu Gly Met
145                 150                 155
```

<210> 32770
<211> 138
<212> PRT
<213> A.fumigatus

<400> 32770
Asp Gly Gly Thr Leu Thr Asp Gly Ile Glu Leu Ala Tyr Val Ile Arg
1 5 10 15
Arg Val Glu Pro Asn Asn Ser Pro Thr Asp Lys Gly Val Cys Pro Trp
20 25 30
Ser Ile Arg Gln Thr Gly Val Tyr His Lys Met Leu Tyr Pro Asn Gln
35 40 45
His Ser Gln Asn Ser Leu Arg Ser Thr Ser Val Phe Ile Leu Ile Ala
50 55 60
Pro Ser His Ala Val Glu Lys Ser Ile Pro Tyr Arg Leu Ser Glu Asn
65 70 75 80
Val Ser Gln Asp Asp Thr Phe Arg Gln Asp Phe Leu Ile His Glu Tyr
85 90 95
Ile Val Gly Asp Ser Leu Lys Gly Trp Met Asp Tyr Gln Ala Trp Leu
100 105 110
Glu Ala Glu Ser Lys Gln Ile Val Cys Cys Trp Leu Leu Leu Arg Ile
115 120 125
Ile Arg Ser Gln Tyr Tyr Lys Glu Arg His
130 135

<210> 32771
<211> 90
<212> PRT
<213> A.fumigatus

<400> 32771
Gln Val Phe Asn Tyr Leu Val Gly Ser Leu Ser Arg Ile Phe Thr Thr
1 5 10 15
Leu Gln Glu Val Asp Asp Lys Leu Ile Leu Tyr Gly Phe Ile Ala Gly
20 25 30
Phe Val Leu Asn Val Ile Leu Ala Ala Gln Met Val Tyr Tyr Trp Lys
35 40 45
Ser Pro Ala Gln Pro Lys Lys Arg Pro Ala Arg Ala Ser Arg Pro Leu
50 55 60
Glu Lys Ile Pro Ala Ala Glu Ser Thr Gly Val Ser Thr Lys Pro Ser
65 70 75 80
Ala Lys Ser Pro Thr Thr Arg Arg Arg Gly
85 90

<210> 32772
<211> 94
<212> PRT
<213> A.fumigatus

<400> 32772
Ser Ser His Pro Ser Ser Ser Ser Ser Pro Pro Gly Ser Pro Arg Gln
1 5 10 15
Ala Pro Asn Pro Thr Ala Pro Pro Ala His Ser His Ser Thr His Pro
20 25 30
Gly Pro Gln Ala Arg Thr Pro Pro Pro Ala Asp Arg Ala Ile Pro Ser
35 40 45

```
Pro Gln Pro Leu Asp Gln Val Ser Cys Ala Gly Val Ala Pro Val Ser
    50                  55                  60
Gly Pro Ala Cys Gly Arg Gly Thr Arg Gly Pro Gly Arg Arg Arg Ala
65                  70                  75                  80
Arg Arg Gly Gly Leu Cys Tyr Arg Arg Asp Ala Arg Arg Cys
                85                  90
```

<210> 32773
<211> 212
<212> PRT
<213> A.fumigatus

```
<400> 32773
Ser Arg Ser Ser Leu Gln Ser Gln Ala Gly Ile Ile Ser Asn Asn Leu
1               5                   10                  15
Val Ser Ile Ser Glu His Leu Ala Asp Asn Lys Asp Leu Leu Ser Ala
            20                  25                  30
Leu Val Ala Tyr Pro Gly Pro Ser Tyr Pro Gly Arg Thr Gln Ala Pro
        35                  40                  45
Thr Leu Glu Gln Leu Leu Arg Thr Lys Leu Asp Pro Arg Val Glu Asp
    50                  55                  60
Trp Val Ser Arg Gly Arg Arg Ala Gly Ala Ser Ala Leu Glu Asp Arg
65                  70                  75                  80
Gly Ala Leu Ser Glu Ser Ala Leu Ala Glu Leu Trp Asp Trp Ala Pro
                85                  90                  95
Val Glu Ala Asn Gln Glu Ala Arg Arg Arg Asn Trp Gly Gly Asn Phe
            100                 105                 110
Thr Leu Glu Glu Arg Glu Met Gly Ile Gln Asn Val Val Thr Gly Leu
        115                 120                 125
Arg Arg Gln Leu Glu Asp Glu Asp Glu Glu Ala Ser Glu Ser Glu Glu
    130                 135                 140
Glu Gly Glu Gly Glu Gly Glu Glu Glu Glu Met Glu Val Val Gly Val
145                 150                 155                 160
Arg Arg Arg Ser Gly Ala Gly Ala Gly Leu Glu Phe Asp Ile Ala Ala
                165                 170                 175
Pro Ala Pro Gly Ser Arg Gln Gln Gln Gln Gln Lys Ala Ala Gly Pro
            180                 185                 190
Ala Val Pro Leu Glu Asp Ile Leu Arg Tyr Met Thr Thr Gly Ile Pro
        195                 200                 205
Pro Thr Gln Arg
    210
```

<210> 32774
<211> 104
<212> PRT
<213> A.fumigatus

```
<400> 32774
Leu Trp Gly Cys Arg Ile Ala Asn Leu Pro Ala Ile Arg Pro Thr Tyr
1               5                   10                  15
Ser Leu Ser Ala Gly Thr Ser Pro Ser Pro Ser Gln Pro Leu Tyr Leu
            20                  25                  30
Asn Ser Ile Ala Ala Gln Ser Glu Leu Leu Ile Gln Ser Lys Met Ala
        35                  40                  45
Ser Leu Asn Gln Asp Gln Ile Lys Ile Leu Glu Gln Ser Arg Gln Arg
    50                  55                  60
```

```
Leu Val Gln Leu Thr Arg Ser Leu Ala Ser Leu Ile Gly Ser Leu Asn
65                  70                  75                  80
Gln Ser Glu Pro Leu Pro Ser Trp Phe Asn Pro Thr Pro Ala Gln Thr
                85                  90                  95
Thr Ala Ser Lys Gly Lys Ile Cys
            100
```

<210> 32775
<211> 401
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (401)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32775

```
Pro Pro Arg Ile Pro His Gln Lys Lys Phe Pro Arg Leu Ile Cys Ala
1               5                  10                  15
Ser Ser Glu Phe Cys Trp Asn Leu Glu Arg Gly Thr Gln Asn Gln Leu
            20                  25                  30
Val Phe Tyr Met Gly Pro Phe Gly Pro Ile Pro Val Ala Arg Ile Gly
        35                  40                  45
Ile Tyr Cys Asn Asp Ala Ser Gly Ile Arg Thr Arg Asp Ser Thr Asp
    50                  55                  60
Arg Arg Arg Gly Val Glu Arg Ile Arg Trp Arg His Ser Val His Gln
65                  70                  75                  80
Ala Trp Leu Arg Gly Ser Thr Ser Gly Pro Ala Arg Pro Val Pro Ala
                85                  90                  95
Ala Pro Pro Asp Asp Cys Pro Gly Trp His Asn Trp His Arg Ala Leu
            100                 105                 110
Pro Gln Leu Arg Ala Ser Thr Cys Asn Gly Gly Pro Pro Gly Cys Ile
        115                 120                 125
Ser Gly Leu Tyr Asn Cys Trp Pro Trp Gly Phe Glu Arg Arg Pro Asp
    130                 135                 140
Cys Arg Arg Asp Gly Cys Val Gly Ser Pro Glu Arg Arg Ala Arg Pro
145                 150                 155                 160
Ile Cys Gly Ile Leu Leu Arg Pro Gly His Gly Leu Cys Gln Arg Met
                165                 170                 175
Glu Ser Ser Leu Leu Ile His Ser His Tyr Pro Cys Gly Asn Arg Gly
            180                 185                 190
Ser Leu Ser Ala Gly Ser Ile Leu Asp His Arg Gln Gln Arg His Leu
        195                 200                 205
Asp Tyr Arg Leu Gln Leu Ala Gly Ala Asp Tyr Gly Ala Gly Val Arg
    210                 215                 220
Pro Asn Leu Trp Gly Ala Gly Ile Cys Ile Arg His Leu Glu Asn Pro
225                 230                 235                 240
Ala His His Trp Gly Glu His His Gly Ala Gly Asp Tyr Leu Arg Arg
                245                 250                 255
Arg Thr Gly Trp Thr Ile Asp Trp Phe Gln Ile Leu Glu Arg Pro Arg
            260                 265                 270
Ala Phe Cys Ser Val Pro Trp Asp Gln Arg Leu Pro Trp Pro Val Pro
        275                 280                 285
Trp Phe Leu Asp Met Ser Gln Gln Cys Arg Leu Leu Val Leu Gly Asn
    290                 295                 300
```

```
Pro Glu Tyr His Asp Pro Arg Gly Arg Asp Gln Val Arg Pro Thr Val
305                 310                 315                 320
His Pro Arg Ser Asn Pro Ala Arg Leu Gly Thr Tyr Leu Pro Leu Pro
                325                 330                 335
Cys Ser Asn Asp Leu Tyr Asp Trp Pro Gly Ser Ser Leu Arg Thr Ile
            340                 345                 350
Pro Leu Phe Cys Gln Leu Met Gly Arg Ala Leu Thr Pro His Leu Leu
        355                 360                 365
Met Val Ala Ser Pro Gly Arg Asp Gln Asp Gly Thr Leu Asp His Gln
    370                 375                 380
Arg Tyr Tyr Pro Asp Phe Arg Val Val Pro Arg Gly Ile Gln Ile Ser
385                 390                 395                 400
Xaa
```

<210> 32776
<211> 344
<212> PRT
<213> A.fumigatus

<400> 32776

```
Ser Ala Gln Ala Arg Asn Phe Val Gly Thr Trp Ser Gly Glu His Lys
1               5                   10                  15
Ile Asn Leu Ser Ser Ile Trp Val Leu Leu Val Arg Tyr Pro Trp Leu
            20                  25                  30
Val Ser Ala Ser Ile Ala Thr Met Pro Leu Glu Ser Glu Leu Gly Ile
        35                  40                  45
Gln Leu Thr Glu Gly Glu Gly Ser Ser Ala Ser Asp Gly Asp Ile Ala
    50                  55                  60
Phe Ile Arg Arg Gly Phe Gly Glu Val Gln Ala Val Arg Gln Gly Leu
65                  70                  75                  80
Tyr Gln Arg His Leu Gln Met Ile Ala Leu Ala Gly Thr Ile Gly Thr
                85                  90                  95
Gly Leu Phe Leu Ser Ser Gly Gln Ala Leu Val Met Gly Gly Pro Leu
            100                 105                 110
Gly Ala Phe Leu Ala Tyr Thr Ile Val Gly Leu Gly Val Ser Ser Val
        115                 120                 125
Val Leu Thr Val Gly Glu Met Gly Ala Leu Val Pro Leu Ser Gly Gly
    130                 135                 140
Leu Val Arg Tyr Ala Glu Tyr Phe Phe Asp Pro Ala Met Ala Phe Ala
145                 150                 155                 160
Asn Gly Trp Asn Gln Val Tyr Leu Tyr Thr Val Thr Ile Pro Ala Glu
                165                 170                 175
Ile Val Ala Ala Ser Val Leu Val Gln Phe Trp Ile Thr Val Asn Asn
            180                 185                 190
Ala Ile Trp Ile Thr Val Phe Ser Leu Leu Val Leu Ile Thr Ala Leu
        195                 200                 205
Val Phe Val Arg Ile Tyr Gly Glu Leu Glu Phe Ala Phe Ala Ile Leu
    210                 215                 220
Lys Ile Leu Leu Ile Ile Gly Val Asn Ile Met Ala Leu Val Ile Thr
225                 230                 235                 240
Cys Gly Gly Gly Pro Asp Gly Gln Ser Ile Gly Phe Arg Tyr Trp Arg
                245                 250                 255
Asp Pro Gly Pro Phe Val Gln Tyr Leu Gly Ile Lys Gly Ser Leu Gly
            260                 265                 270
Gln Phe Leu Gly Phe Trp Thr Cys Leu Asn Asn Ala Val Phe Ser Tyr
```

```
        275                 280                 285
Ser Gly Ile Gln Asn Ile Thr Ile Pro Ala Ala Glu Thr Arg Ser Ala
    290                 295                 300
Arg Arg Ser Ile Pro Glu Ala Thr Arg Arg Val Leu Val Arg Ile Phe
305                 310                 315                 320
Leu Cys His Val Leu Thr Ile Phe Met Ile Gly Leu Gly Arg Pro Ser
                325                 330                 335
Glu Arg Phe Pro Ser Ser Ala Asn
            340
```

<210> 32777
<211> 68
<212> PRT
<213> A.fumigatus

<400> 32777

```
Leu Tyr Arg Pro Ser Arg Ser Pro Pro Gln Leu Ile Val Ser Gln Leu
1               5                   10                  15
Asp Glu Ala Val Arg Tyr Ser Gly Met Ser Lys Ser Asn Ile Met Glu
            20                  25                  30
Ile Gly Ala Tyr Arg Tyr Ile Arg Val Tyr Leu Glu Lys Phe Ser Leu
        35                  40                  45
Arg Tyr Pro Asp Ile Ile Ile Ile Asp Gly Gly Thr Glu Ser Pro Thr
    50                  55                  60
Asp Ser Asn Leu
65
```

<210> 32778
<211> 209
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (12),(13),(25)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32778

```
Leu Pro Arg Gly Ser Ala Gly Asn Ser Asn Ile Xaa Xaa Ala Ser Arg
1               5                   10                  15
Ile Leu Tyr Gly Met Ala Val His Xaa His Ala His Ala Val Phe Glu
            20                  25                  30
Arg Leu Asn Arg Phe Ser Val Pro Tyr Val Ala Ile Ser Cys Ile Gly
        35                  40                  45
Phe Phe Met Ser Leu Gly Tyr Met Ser Leu Thr Glu Ser Ser Thr Ile
    50                  55                  60
Val Phe Arg Trp Leu Arg Asp Val Val Ser Val Ala Thr Leu Val Asp
65                  70                  75                  80
Trp Ile Ile Val Cys Ile Val Tyr Leu Arg Phe Tyr Tyr Gly Cys Lys
                85                  90                  95
Lys Gln Gly Val Asp Arg His Lys Glu Leu Pro Trp Ala Ala Pro Phe
            100                 105                 110
Gln Pro Tyr Phe Thr Trp Ala Ser Leu Ile Leu Phe Ala Leu Leu Leu
        115                 120                 125
Ile Thr Gly Gly Tyr Ser Thr Phe Ile His Gly His Trp Asp Thr Glu
    130                 135                 140
```

```
Thr Phe Val Ser Ser Tyr Ile Asn Ile Pro Ile Val Leu Gly Leu Tyr
145                 150                 155                 160
Tyr Gly Tyr Lys Phe Trp Lys Lys Thr His Ile Val Thr Leu Glu Asn
                165                 170                 175
Met Pro Leu Val Gly Leu Leu Gln Phe Tyr Leu Ser Gln Asp Glu Asp
            180                 185                 190
Glu Pro Glu Pro Arg Pro Arg Lys Gly Leu Ala Lys Leu Asn Ile Leu
        195                 200                 205
Trp
```

<210> 32779
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32779

```
Lys Val Leu Pro Arg Phe His Val Asp Arg Phe Ser Leu Val Arg Val
1               5                   10                  15
Phe Arg Glu Thr Gly Pro Leu Leu Ser Cys Pro Trp Glu Ile Ser Tyr
            20                  25                  30
Asn Ser Pro Glu Thr Val Ile Lys Gln Ser Cys Ile Phe Thr Tyr Met
        35                  40                  45
Arg Tyr Asn Phe Thr Val Arg Gln Asp Leu Leu Leu Ser Leu
    50                  55                  60
```

<210> 32780
<211> 129
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (64)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32780

```
Cys Asp Glu Val Lys Pro Asn Cys Gly Asn Cys Leu Arg His Ser Ile
1               5                   10                  15
Glu Cys Asp Tyr Thr Leu Asn Thr Glu Gly Thr Ser Thr Pro Ser Thr
            20                  25                  30
Glu Glu Glu Asn Arg Thr Pro Thr Ser Leu Asn Asp Asn Tyr Thr Phe
        35                  40                  45
Ile Ser Ser Ser Gln Ser Asn Phe Thr Pro Pro Arg Arg Arg Arg Xaa
    50                  55                  60
Ser Arg Pro Leu Pro Thr Gln Glu Asp Ile Glu Pro Lys Pro Gln Leu
65                  70                  75                  80
His Leu Pro Val Gly Lys Lys Leu Phe Gln Phe Thr Thr Asn Asp Met
                85                  90                  95
Gly Leu Phe His His Phe Ile Thr Ser Ala Glu Leu Gly Arg Ile Phe
            100                 105                 110
Lys Thr Leu Ala Glu Pro Thr Val Ser Thr Lys Asp Ser Pro Pro Ile
        115                 120                 125
Met
```

<210> 32781
<211> 70
<212> PRT
<213> A.fumigatus

<400> 32781
Ser Ser Ile His Val Leu Thr Val Leu Thr Val Ile Asn Phe Leu Gln
1 5 10 15
Gly Ser Ser Leu Ala Ala Asp Thr Val Gly His Ile Ile Thr Tyr Glu
20 25 30
Val Val Thr Leu Gly Thr Tyr Leu Leu Tyr Thr His Asn Lys Ile Val
35 40 45
Leu Ala Arg Val Gly Ser Arg Arg Ser Cys His Leu Cys Thr Glu Val
50 55 60
Leu Asn Ser Ile Ile His
65 70

<210> 32782
<211> 68
<212> PRT
<213> A.fumigatus

<400> 32782
Leu His Ala Val Arg Pro Cys Leu Asp His Phe Leu Phe Tyr His Cys
1 5 10 15
Ile Asp Cys Ser Phe Ser Val Ser Gly Gln Thr Lys Pro Ser Leu Phe
20 25 30
Pro Val Asn Phe Pro Leu Tyr Ser Arg Arg Gln Asp Phe Ala Leu Val
35 40 45
Arg Leu Asn Ala Val Lys Leu Ser Pro Pro Ser Phe Gly Leu Glu Thr
50 55 60
Thr Tyr Val Phe
65

<210> 32783
<211> 170
<212> PRT
<213> A.fumigatus

<400> 32783
Met Thr Ala Leu Gln Thr Ala Arg Ile Thr Leu Ala Gly Glu Gln Leu
1 5 10 15
Gly Phe Met Asn Val Ser Asn Ala Gly Ser Thr Val Phe Asn Trp Phe
20 25 30
Leu Asn Ile Ser Gly Val Ala Gly Trp Ile Thr Trp Ala Ser Leu Asn
35 40 45
Ala Cys His Ile Ala Phe Met Arg Ala Leu Lys Ala Arg Asn Ile Ser
50 55 60
Arg Asp Leu Leu Pro Tyr Lys Ala Leu Trp Gln Pro Trp Tyr Ala Tyr
65 70 75 80
Tyr Gly Leu Phe Phe Asn Val Leu Ile Ile Leu Thr Gln Gly Phe Thr
85 90 95
Ala Trp Ile Pro Thr Phe Ser Val Thr Asp Phe Phe Val Ala Tyr Leu
100 105 110
Ser Val Ile Leu Phe Val Val Leu Tyr Leu Gly His Lys Ile Ile Phe
115 120 125

```
Arg Pro Ala Phe Val Arg Pro Ile Glu Ala Asp Ile Asp Thr Gly Arg
    130                 135                 140
Val Ala Leu Glu Asn Glu Met Trp Glu Thr Val Thr Pro Thr Lys Trp
145                 150                 155                 160
Tyr Lys Lys Leu Gly Ser Ala Ile Leu Gly
                165                 170
```

<210> 32784
<211> 111
<212> PRT
<213> A.fumigatus

<400> 32784

```
Leu Arg Arg Phe Ala Trp Pro Phe Ser Cys Ser Ala Ile Ser Lys Pro
1               5                   10                  15
Gln Ser Gly Val Leu Pro Asn Ser Gly Asn Tyr Pro Ile Pro Arg Gly
            20                  25                  30
Asp Leu Ala Asp Phe Pro Trp Pro Gly Val Ala Gly Asn Pro Ser Gly
        35                  40                  45
Phe Phe Phe Ser Pro Asp Ile Tyr Phe Ser Ile Arg Arg Thr Gly Lys
    50                  55                  60
Arg Lys Glu Arg Thr Arg Leu Ala Arg Arg Arg Arg Phe Val Leu Ile
65                  70                  75                  80
Arg Ser Leu Ala Ser Phe Pro Leu Ser Pro Phe Thr Tyr Pro Asp Ser
                85                  90                  95
Met Leu Ser Val Leu Val Ser Ile Thr Phe Ser Phe Ile Ile Val
            100                 105                 110
```

<210> 32785
<211> 148
<212> PRT
<213> A.fumigatus

<400> 32785

```
Ser Arg Gly Arg Leu Leu Arg Gly Gly Val Arg Val Val Thr Arg Glu
1               5                   10                  15
Glu Glu Arg Pro Thr Phe Ala Arg Cys Ala Gly Asn His Lys Gly Pro
            20                  25                  30
Val Tyr Ser Pro Phe Asn Pro Arg Gly Ser Val Lys Pro Pro Gln Tyr
        35                  40                  45
Ser Pro His Gln Pro Gly Pro His Gln Pro His Arg Ser Pro Ala Pro
    50                  55                  60
Ser Cys Pro Leu Gly Ser Gln Thr Pro Arg Pro Pro Ser Pro Pro Pro
65                  70                  75                  80
Ala Pro Arg Ser Thr Pro Leu Ala Ser Arg Ala Pro Cys Thr Pro Gly
                85                  90                  95
Arg Arg Pro Ser Arg Gln Trp Ser Ala Gly Thr Arg Asp Ser Ser Ala
            100                 105                 110
Arg Gly Gly Ile Pro Ala Ala Gly Gly Gly Arg Cys Gly Ala Arg Gly
        115                 120                 125
Arg Pro Ser Arg Ser Arg Arg Arg Gly Arg Arg Ala Ala Arg Pro Gly
    130                 135                 140
Gly Ser Arg Arg
145
```

<210> 32786

<211> 65
<212> PRT
<213> A.fumigatus

<400> 32786
Thr Thr Pro Ile Leu Ala Ala Ser Ala Gly Ser Ala Pro Thr Ala Ser
1 5 10 15
Phe Ala Ser Thr Val Val Pro Thr Trp Phe Pro Asn Ala Ala Thr Pro
20 25 30
Val Pro Thr Thr Gly Ala Thr Val His Thr Pro Cys Val Ala Cys Ala
35 40 45
Val His Thr Arg Lys Thr Thr Ile Pro Ala Met Val Ser Arg Asn Pro
50 55 60
Arg
65

<210> 32787
<211> 136
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (9)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32787
His Glu Ile His Asn Gly Arg Gly Xaa Phe Val Phe Arg Gly Leu Asp
1 5 10 15
Val Asp Arg Tyr Ser Arg Ala Asp Asp Ile Leu Ile Tyr Pro Gly Val
20 25 30
Ser Ser His Ile Gly Ser Ile Arg Gly Arg Gln Gln Asp Gln Arg Gln
35 40 45
Ala Asp Gly Thr Ser Val Val Leu Ala His Ile Lys Asp Leu Thr Arg
50 55 60
Thr Asp Gln Ala Gly Asn Ile Gly Gly Pro Gly Ser Thr Ala Asp Lys
65 70 75 80
Gln Val Phe His Thr Asp Ala Gly Asp Ile Val Ser Leu Phe Cys Leu
85 90 95
Glu Thr Ala Ala Glu Gly Gly Glu Ser Gln Ile Ser Ser Ser Trp Leu
100 105 110
Val Tyr Asn Ile Leu Ala Lys Glu Arg Pro Asp Leu Ile Trp Thr Leu
115 120 125
Ala Thr Asp Trp Pro Val Asp Gly
130 135

<210> 32788
<211> 209
<212> PRT
<213> A.fumigatus

<400> 32788
Arg Lys Gln Arg Ile Ala Asn Leu Val Leu Val Ala Phe His Ala Phe
1 5 10 15
Met Gly Thr Phe Ile Ala Ala Gly Ile Ile Ala Ala Tyr Glu Asp Ile
20 25 30

```
Ala Val Asp Leu Asp Val Ser Ile Gln Lys Val Ser Tyr Leu Thr Ser
        35                  40                  45
Leu Gln Ile Ala Ile Leu Gly Gly Gly Pro Leu Val Trp Lys Pro Leu
    50                  55                  60
Ser Gln Arg Phe Gly Arg Arg Pro Ile Phe Leu Val Ser Leu Val Leu
65                  70                  75                  80
Ser Cys Val Cys Asn Ile Gly Cys Ala Thr Ser Pro Gly Tyr Ala Ser
                85                  90                  95
Met Ala Ala Cys Arg Ala Leu Ala Ala Phe Phe Ile Cys Pro Ala Met
            100                 105                 110
Ala Ile Gly Ser Ala Val Val Ala Glu Thr Phe Phe Lys Arg Glu Arg
        115                 120                 125
Ala Arg Tyr Met Gly Val Trp Thr Val Met Val Thr Leu Gly Val Pro
    130                 135                 140
Thr Gly Pro Phe Ile Phe Gly Phe Val Ala Gln Arg Val Gly Tyr Arg
145                 150                 155                 160
Trp Ile Tyr Trp Ile Leu Ala Ile Val His Thr Phe Ser Thr Asn Pro
                165                 170                 175
Thr Tyr Glu Pro Pro Leu Thr Glu Ala Tyr Arg Pro Thr Pro Ser Ser
            180                 185                 190
Ser Ser Ser Thr Ser Ser Ser Ala Leu Arg Pro Ala Thr Ser Ala Pro
        195                 200                 205
Thr
```

<210> 32789
<211> 176
<212> PRT
<213> A.fumigatus

<400> 32789

```
Pro Thr Ser Ser Trp Trp His Ser Thr Pro Ser Trp Ala Pro Ser Leu
1               5                   10                  15
Gln Pro Ala Ser Ser Pro Arg Thr Lys Thr Ser Arg Ser Thr Trp Met
            20                  25                  30
Cys Pro Ser Lys Lys Ser Ala Thr Ser Pro Pro Cys Arg Ser Leu Tyr
        35                  40                  45
Trp Ala Ala Ala Arg Trp Ser Gly Asn Arg Ser Arg Ser Ala Ser Asp
    50                  55                  60
Gly Gly Arg Ser Ser Leu Ser Arg Trp Cys Ser Ala Ala Cys Val Ile
65                  70                  75                  80
Ser Gly Ala Pro Arg Val Arg Val Met Arg Arg Trp Arg Arg Val Gly
                85                  90                  95
Arg Ser Leu Arg Ser Ser Ser Ala Leu Arg Trp Arg Leu Gly Val Arg
            100                 105                 110
Ser Leu Arg Lys Arg Ser Ser Ser Ala Arg Glu Gln Gly Ile Trp Val
        115                 120                 125
Ser Gly Arg Ser Trp Ser Arg Trp Gly Cys Arg Leu Gly Arg Ser Phe
    130                 135                 140
Leu Gly Leu Leu Arg Ser Ala Trp Asp Ile Gly Gly Tyr Thr Gly Phe
145                 150                 155                 160
Trp Gln Leu Tyr Ile His Ser Leu Leu Thr Leu Arg Met Ser His His
                165                 170                 175
```

<210> 32790
<211> 189

<212> PRT
<213> A.fumigatus

<400> 32790
Asp Pro Leu His Arg His Arg His Asp Leu Pro Asn His Leu Gly Leu
1 5 10 15
Pro Thr Gly Ile Pro Val Ser Pro Ala His Arg Ser His Pro Leu Tyr
20 25 30
Ala Pro Arg Ile Leu Pro Pro Ala His Ala Leu His Gln His Pro Arg
35 40 45
Pro His Arg Arg Val Arg Leu Arg His Gly Leu Pro Leu Arg Gln Arg
50 55 60
Pro Gln Leu Arg Arg Ser Ala Pro Ala Ala Pro Ile Gln Val Leu Pro
65 70 75 80
Gln Arg Ala Ala Ala Arg Pro Ala Val Pro Arg Ala His Arg Arg Leu
85 90 95
Pro Pro Gly Arg Ala Ala Arg Arg Pro Arg Leu Arg Leu Leu Asp Gly
100 105 110
Leu Pro Arg Ala Pro His Leu Pro Pro Pro Ala Ala Gly Ile Pro Pro
115 120 125
Leu Ala Glu Leu Ser Arg Val Pro Ala Asp His Cys Arg Asp Gly Arg
130 135 140
Leu Pro Gly Val His Gly Ala Arg Asp Ala Arg Gly Val Asp Arg Gly
145 150 155 160
Ala Gly Gly Gly Asp Gly Gly Arg Gly Val Trp Glu Pro Ser Gly His
165 170 175
Asp Gly Ala Gly Glu Arg Cys Gly Trp Cys Gly Pro Gly
180 185

<210> 32791
<211> 94
<212> PRT
<213> A.fumigatus

<400> 32791
Asn Gln Asp Ser Lys Met Gly Glu Ile Gln Thr Leu Arg Gln Pro Asp
1 5 10 15
Ile Gln Tyr His Pro Asp Tyr Glu Lys Tyr Leu Ala Arg Val Gln Arg
20 25 30
Arg Lys Ala Thr Glu Asp Leu Pro Thr Ser Leu Pro Pro Gly Phe Pro
35 40 45
Glu Lys Leu Ser Ser Pro Leu Val Trp Glu Gly Lys Glu Ile Glu Lys
50 55 60
Gln Asn Asp Trp Ile Tyr Lys Leu Asp Asp Ala Gln Arg Glu Glu Ile
65 70 75 80
His Ala Ala Leu Ser His Phe Lys Gly Lys Leu Pro Asn Arg
85 90

<210> 32792
<211> 143
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (44)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32792

```
Gln Gly Met Thr Asn Val His Ser Pro Glu Pro Arg Thr Arg Leu His
1               5                  10                  15
Gln Ser Arg Asp Ile Pro Pro Pro Asn Ser Pro Ser Tyr Thr Ala Gly
            20                  25                  30
Thr Ile Ala Arg Asp Ser Gln Arg Ala Arg Leu Xaa Arg Leu Pro Arg
        35                  40                  45
Pro Arg Arg Arg Ser Val Leu Pro Arg Arg Arg His Pro His Leu Pro
    50                  55                  60
Gly Arg Ile Leu Ala Tyr Trp Lys His Pro Arg Pro Ala Ala Gly Pro
65                  70                  75                  80
Thr Thr Ser Arg Arg Asp Val Ser Arg Ala Arg Thr Tyr Gln Gly Pro
                85                  90                  95
Asp Ser His Arg Ser Ser Arg Gln His Arg Arg Ala Arg Gln His Ser
            100                 105                 110
Arg Gln Ala Ser Leu Pro His Arg Arg Arg Arg His Arg Leu Ala Val
        115                 120                 125
Leu Ser Arg Asp Ser Gly Arg Gly Arg Arg Lys Pro Asp Leu Gln
    130                 135                 140
```

<210> 32793
<211> 145
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (116)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32793

```
Leu Ala Gly Val Gln His Pro Arg Gln Gly Thr Thr Gly Phe Asp Leu
1               5                  10                  15
Asp Val Gly Asn Gly Leu Ala Gly Gly Trp Val Ser Val Arg Leu Leu
            20                  25                  30
Pro Gln Leu Leu Ser Cys Leu Pro Arg Ser Phe Asn Asn Pro Glu Arg
        35                  40                  45
Pro Tyr Thr Leu Arg Pro Leu Leu Tyr His Gln Asp Ala Thr Ala Ser
    50                  55                  60
Thr Pro Glu Arg Val Leu Ile Gln Tyr Ala Arg Arg Tyr Phe Thr Gly
65                  70                  75                  80
Phe Leu Ala Gln Pro Arg Ser Ala Asn Ile Pro Pro Ile Thr Glu Ala
                85                  90                  95
Gln Ala Glu Ala Leu Glu Arg Gly Glu Phe Ser Trp Pro Glu Glu His
            100                 105                 110
Ser Ala Ala Xaa Asp Phe Gln Lys Gly Asp Val Gln Tyr Ile Ile Asn
        115                 120                 125
Leu Ser Ile Phe His Ala Arg Lys Gly Phe Arg Asp Gly Pro Gly Lys
    130                 135                 140
Glu
145
```

<210> 32794
<211> 212

<212> PRT
<213> A.fumigatus

<400> 32794
Thr Asn Ala Val Gln Phe Ile Leu Tyr Leu Phe Leu Gly Pro Glu Thr
1 5 10 15
Arg Tyr Ile Gly Thr Asp Met Thr Ser Gln Thr Thr Ser Ala Phe Gln
20 25 30
Arg Glu Tyr Leu Ser Leu Arg Arg Ile Asp Pro Thr Pro Phe Thr Leu
35 40 45
His Glu Phe Tyr His Pro Leu Thr Leu Phe Thr Asn Ile Pro Val Leu
50 55 60
Thr Ala Ala Cys Ala Tyr Ala Met Val Phe Leu Phe Gly Ser Val Leu
65 70 75 80
Asn Ser Val Glu Val Pro Gln Leu Leu Gln Ser Lys Phe Ser Leu Asn
85 90 95
Ala Gln Gln Leu Gly Leu Gln Phe Leu Gly Leu Ile Val Gly Ser Leu
100 105 110
Leu Gly Glu Gln Leu Gly Gly His Ala Ser Asp Ser Trp Met Ala Phe
115 120 125
Arg Ala Arg Arg Ile Ser Arg Arg Pro Pro Pro Glu Phe Arg Leu Trp
130 135 140
Leu Ser Tyr Leu Gly Phe Leu Leu Thr Ile Ala Gly Met Val Val Phe
145 150 155 160
Leu Val Cys Thr Ala His Ala Thr Gln Gly Val Trp Thr Val Ala Pro
165 170 175
Val Val Gly Thr Gly Val Ala Ala Phe Gly Asn Gln Val Gly Thr Thr
180 185 190
Val Leu Ala Asn Asp Ala Val Gly Ala Asp Pro Ala Asp Ala Ala Ser
195 200 205
Ile Gly Val Val
210

<210> 32795
<211> 90
<212> PRT
<213> A.fumigatus

<400> 32795
Arg Cys Leu Gly Glu Ser Ser Thr Ile Arg Asp Gly Pro Ala Thr Thr
1 5 10 15
Gly Ile Val Phe Lys Gly Asp Met Ala Glu Asn Glu Ala Phe Arg Leu
20 25 30
Arg Asp Met Ala Ser Ser Cys Ala Thr Asn Asn Asp Thr Glu Val Asn
35 40 45
Val Ile Lys Val Ser Ala Leu Pro Ile Gly Arg Phe Arg Lys Trp Arg
50 55 60
Ile Cys Arg Thr Met Glu Lys Gln Tyr Asp Glu Glu Ile His Gly Ser
65 70 75 80
Ala Ser Ser Phe Ala Glu Glu Arg Arg Arg
85 90

<210> 32796
<211> 138
<212> PRT
<213> A.fumigatus

<400> 32796
Gln Gly Thr Phe Ser Arg Asn His Arg Ser Ser Leu Ser Ser Leu Thr
1 5 10 15
Thr Leu Ala Pro Arg Arg Thr Pro Ser Pro Thr Pro Ser Val Ala Gly
20 25 30
Ile Glu Arg Tyr Pro Leu Lys Val Thr Arg Arg Met Gly Lys Lys Met
35 40 45
Val Glu Lys Arg Ser Arg Ile Lys Pro Phe Ile Lys Ile Val Asn Tyr
50 55 60
Asn His Leu Met Pro Thr Arg Tyr Thr Leu Glu Leu Glu Gly Leu Lys
65 70 75 80
Gly Ala Ile Ser Gln Glu Thr Phe Lys Glu Val Ser Thr Arg Glu Asp
85 90 95
Ala Lys Lys Thr Val Lys Lys Ala Leu Glu Asp Arg Tyr Thr Ser Gly
100 105 110
Lys Asn Arg Trp Phe Phe Thr Pro Leu Arg Thr Cys Asn Leu Cys Leu
115 120 125
Phe Leu Pro Cys Cys Glu Arg Val Leu Cys
130 135

<210> 32797
<211> 137
<212> PRT
<213> A.fumigatus

<400> 32797
Glu Gly Thr Thr Lys Pro Phe Leu Phe Leu Arg Val Leu Ala Lys Ile
1 5 10 15
Trp Met Arg Val Glu Gly Leu Val Arg His Phe Ser Met Val Asp Val
20 25 30
Glu Arg Lys Asn Glu Arg Asp Val Leu Asp Glu Leu Gly Lys Arg Glu
35 40 45
Ile Gly Leu Gly Arg Asp His Leu Asp Ile Glu Lys Asp Val Leu Thr
50 55 60
Arg Asp Leu Phe Ala Lys Ser Gln Val Val Ile Val Gln Pro Asn Asp
65 70 75 80
Thr Gly Ser Lys Ala His Pro Phe Pro Tyr Ala Ile Arg Arg Arg Tyr
85 90 95
Arg Ala Leu Pro Pro Gln Gly His Pro Pro His Gly Gln Glu Asp Gly
100 105 110
Arg Glu Ala Gln Pro His Gln Ala Phe His Gln Asp Cys Gln Leu Gln
115 120 125
Pro Leu Asp Ala His Pro Leu His Ser
130 135

<210> 32798
<211> 348
<212> PRT
<213> A.fumigatus

<400> 32798
Glu Pro Arg Arg Thr Ser Leu Phe Asn Glu Arg Leu Ile Leu Ser Ser
1 5 10 15
Glu Lys Ser Arg Ile Pro Ala Trp Cys Asp Arg Ile Leu Trp Lys Gly
20 25 30

```
Ser Asn Ile His Gln Leu His Tyr Asp Ser Ala Cys Leu Gln Cys Ser
        35                  40                  45
Asp His Arg Pro Val Trp Ala Val Phe Ser Cys Asp Ile Asn Phe Val
    50                  55                  60
Asp Asp His Leu Arg Glu Asn Ile Arg Ser Met Ile Tyr Ala Met Glu
65                  70                  75                  80
Val Gly Asp Ser Pro Glu Thr Pro Ala Lys Ser Lys Thr Gln Ala Lys
                85                  90                  95
Val Arg Lys Arg Glu Ser Ala Glu Leu Asp Phe His Thr Leu Asp Leu
            100                 105                 110
Pro Ser Ala Ser Ser Asp Asp Arg Arg Trp Trp Leu Asp Asn Gly Met
        115                 120                 125
Thr Ser Gln Ile Leu Asn Arg Leu Leu Glu Asn Ile Phe Val Ser Gly
    130                 135                 140
Tyr Ser Asn His Ser Tyr Val Ala Gly Met Pro Val Lys Ser Ile Ile
145                 150                 155                 160
Gln Pro Pro Ser Asn Gly Trp Ser Leu Asn Met Asn Arg Glu Ser Asn
                165                 170                 175
Pro Phe Ser Ser Ser Asn Ala Pro Asp Trp Val Pro Ala Arg Arg Leu
            180                 185                 190
Thr Asp Ser Gln Lys Ala Val Val Asp Asn Ile Asp Pro Ile Thr Tyr
        195                 200                 205
Lys Pro Pro Leu Pro Pro Arg Gly Gly Asn Gly Ala Ala Asp Ser Ser
    210                 215                 220
Asp Leu Ile Tyr Glu Thr Asp Met Gln Ser Ser Arg Ala Asn Gly Ala
225                 230                 235                 240
Lys Lys Ala Pro Pro Ile Pro Arg Lys Pro Val Ala Leu Arg Asn Asp
                245                 250                 255
His Lys Ala Leu Ser Gly Gln Ala Gly Trp Gln Ser Gly Met Lys Ala
            260                 265                 270
Leu Gly Ser Val Pro Ser Gln Pro Ser Asn Arg Leu Asp Val Pro Arg
        275                 280                 285
Phe Asp Leu Gly Asp Gln Ile Lys Pro Pro Pro Ala Val His Arg Val
    290                 295                 300
Pro Gly Ser Gln Asp Ser Leu Ser Val Gly Ser Arg His Leu Gly Gly
305                 310                 315                 320
Phe Glu Arg His Thr Asp Ile Thr Lys Asp Leu Leu Asp Gly Glu Val
                325                 330                 335
Asp Ser Glu Ile Lys Trp Glu Pro Leu Leu Pro Lys
            340                 345
```

<210> 32799
<211> 184
<212> PRT
<213> A.fumigatus

<400> 32799

```
Ala Leu Leu Gln Ser Ala Asp Pro Ser Thr Pro Val Val Lys Thr Arg
1               5                   10                  15
Ile Ala Arg Gly Phe Phe Gln Pro Gly Lys Val Lys Pro Asp Ile Val
            20                  25                  30
Val Pro Gly Val Leu Leu Glu Leu Phe Leu Val Leu His Pro Ala Leu
        35                  40                  45
Gly Gln Asn His Ile Leu Asn Ala Leu Ser Val Thr Lys Leu Leu Leu
    50                  55                  60
Lys Cys Arg Val Gly Leu Val Lys Arg His Arg Leu Gly Thr Gly Gln
```

65 70 75 80
Pro Val Gln Gly Val Phe Val Asp Cys Ser Arg Pro Leu Ile Leu Leu
85 90 95
Glu Leu Cys Leu Glu Phe Arg Val Arg Asp Glu Glu Leu Leu Val His
100 105 110
Lys Ile Leu Thr Gln Gly Leu Asp Cys His Pro Val His Phe Pro His
115 120 125
Gln Val Thr Arg Pro Val Leu Leu Leu Lys Pro Gly Pro Phe Asp Pro
130 135 140
Val Pro Trp Leu Arg Val Asp Asp Arg Lys Pro Leu Glu Asp Cys Ala
145 150 155 160
Arg Ala Leu Lys Leu Ile Val Pro Leu Leu Lys Leu Asp Ile Arg Thr
165 170 175
Pro Arg Ala Leu Val Arg Leu Pro
180

<210> 32800
<211> 146
<212> PRT
<213> A.fumigatus

<400> 32800
His Pro Pro Leu Lys His Leu Pro Arg Ser Leu Asp Ile Pro Gln Arg
1 5 10 15
Leu Leu His Val His Val Leu Val Pro Glu Leu Val His Ala Gly Gln
20 25 30
Asp Gly Asp Arg Pro Val Gln Gln Val Pro Arg Met Val Asp Val Ala
35 40 45
Ile Pro His Phe Arg Leu Asp Ile Pro Asp Pro Glu Tyr His Arg Gly
50 55 60
Arg Val Asp Val Gln Arg Pro Phe Glu Asp Arg Ser Arg Pro Ala Lys
65 70 75 80
Phe Leu Leu Leu Gln Leu Pro Arg Cys Ile Pro His Pro Val Val His
85 90 95
Val Gln Pro Ile Ala Ala His Ile Val Phe Lys Leu Leu Ser Leu Ala
100 105 110
Ala Leu Val Leu Val Gln Phe Phe Glu Val Arg Glu Ser Leu Cys Arg
115 120 125
Arg Leu Gln Arg Arg Leu Leu Pro Ile Asn Ser Leu Ala Lys Gln Leu
130 135 140
Leu Arg
145

<210> 32801
<211> 536
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (521),(532),(536)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32801
Pro Ala Ala Ser Leu Ala Ser Ala Val Ala Cys Gly Tyr Ile Ala Val
1 5 10 15

```
Ile Met Ser Asn Ala Glu Glu Phe Leu Arg Asp Phe Glu Glu Glu Asp
            20                  25                  30
Asp Glu Val Phe Gln Ala Gly Glu Glu Val Glu Glu Asp Val Gly Glu
        35                  40                  45
Glu Val Gln Arg Pro Thr Pro Glu Val Thr Asn Glu Phe Asp Val Ala
    50                  55                  60
Val Ser Thr Thr Asp Glu Leu Thr Arg Leu His Lys Ser Leu Arg Asp
65                  70                  75                  80
His Tyr Ser Ile Arg Phe Pro Glu Leu Glu Thr Leu Val Thr Asn Pro
                85                  90                  95
Ile Asp Tyr Ala Lys Thr Val Ala Ile Leu Lys Asn Gly Pro Leu Asn
            100                 105                 110
Asp Ile Lys Ala Leu Ser Ser Ser Ala Asp Asn Met Val Gly Ala Pro
        115                 120                 125
Leu Lys Ser Ile Leu Asp Gly Pro Ser Leu Met Val Val Ala Val Glu
    130                 135                 140
Gly Thr Thr Thr Arg Gly Arg Glu Met Thr Glu Ala Glu Leu Lys Val
145                 150                 155                 160
Val Leu Asp Thr Cys Glu Arg Ile Leu Lys Leu Asp Arg Glu Arg Thr
                165                 170                 175
Ala Leu Thr Gln Ser Ile Gln Ser Arg Met Asn Gln Ile Ala Pro Asn
            180                 185                 190
Leu Ala Ala Leu Ile Gly Pro Glu Thr Ala Ala Gln Phe Leu Asn Gln
        195                 200                 205
Thr Gly Gly Leu Arg Glu Leu Ala Lys Ile Pro Ala Cys Asn Leu Ala
    210                 215                 220
Ala Gln Gly Ser Lys Arg Ser Glu Gly Leu Gly Phe Ala Thr Asn Ile
225                 230                 235                 240
Gly Ile Arg Ser Gln Gly Phe Leu Tyr His Ser Pro Ile Ile Gln Asp
                245                 250                 255
Ile Pro Asn Asp Leu Lys Lys Gln Ala Ile Arg Ile Val Ala Ala Lys
            260                 265                 270
Met Val Leu Ala Thr Arg Ala Asp Val Ala Lys Tyr Ser Pro Asp Gly
        275                 280                 285
Ser Leu Gly Glu Glu Leu Lys Gln Gln Cys Tyr Gln Arg Leu Glu Lys
    290                 295                 300
Leu Thr Glu Pro Pro Pro Asn Ala Gly Val Lys Ala Leu Pro Ala Pro
305                 310                 315                 320
Asp Asp Lys Pro Ser Arg Lys Arg Gly Gly Arg Arg Ala Arg Lys Ala
                325                 330                 335
Lys Glu Ala Ile Ala Met Thr Glu Leu Arg Lys Ala Gln Asn Arg Val
            340                 345                 350
Ala Phe Gly Lys Glu Glu Ala Glu Val Gly Tyr Gly Thr Gly Glu Thr
        355                 360                 365
Thr Val Gly Leu Gly Met Leu Gly Gln Gln Asn Asp Gly Arg Ile Arg
    370                 375                 380
Ala Thr Gln Ile Asp Gln Arg Thr Arg Ala Lys Leu Ser Lys Ser Asn
385                 390                 395                 400
Lys Gly Trp Gly Ala Ala Thr Pro Ile Ser Gly Thr Ala Thr Ser Leu
                405                 410                 415
Arg Gly Phe Gly Ser Gly Ala Gly Gly Thr Ala Ser Val Leu Gln Ala
            420                 425                 430
Lys Gly Leu Arg Thr Ser Gly Val Gly Pro Ser Phe Ala Gly Ile Ala
        435                 440                 445
Gly Thr Ala Ser Thr Ile Ala Phe Thr Pro Val Gln Gly Leu Glu Leu
    450                 455                 460
```

```
Val Asp Pro Lys Ala Gln Ala Glu Leu Gln Arg Lys Arg Lys Ala Glu
465                 470                 475                 480
Glu Asp Arg Trp Phe Lys Ser Gly Thr Phe Thr Gln Val Gly Gly Gln
                485                 490                 495
Ser Ser Ser Thr Asn Asn Ser Gly Ala Asn Gly Gly Phe Lys Val Pro
            500                 505                 510
Arg Thr Ala Cys Met Glu Lys Gly Xaa Thr Pro Leu Arg Ala Asp Ala
        515                 520                 525
Pro Pro Pro Xaa Pro Val Gln Xaa
    530                 535
```

<210> 32802
<211> 99
<212> PRT
<213> A.fumigatus

<400> 32802

```
Ile Thr Phe Ala Leu Gln Lys Leu Asn Leu Pro Pro Pro Ile Val Asp
1               5                   10                  15
Thr Gln Pro Ile Val Pro Pro Thr His His Pro Leu Ser Pro Trp Ser
            20                  25                  30
His Pro Ala Gly Pro Leu Gly Ser Arg Thr Arg Leu Pro Arg Arg Ser
        35                  40                  45
Arg Ser Gln Arg Ser Ser Cys Phe Ala Arg Leu Leu Ile Gly Arg Ser
    50                  55                  60
Arg Arg Cys Arg Arg Arg His Ser Asp Ser Arg Thr Ser Lys Asn Cys
65                  70                  75                  80
Thr Ser Thr Arg Ala Ala Arg Glu Arg Ser Leu Lys Thr Met Cys Ala
                85                  90                  95
Ala Ile Gly
```

<210> 32803
<211> 364
<212> PRT
<213> A.fumigatus

<400> 32803

```
Tyr Pro Thr His Arg Thr Ser Asn Thr Pro Ser Ile Val Thr Met Glu
1               5                   10                  15
Ser Ser Arg Gly Pro Pro Arg Val Lys Asn Lys Ala Pro Ala Pro Ile
            20                  25                  30
Gln Ile Ser Ala Glu Gln Leu Leu Arg Glu Ala Val Asp Arg Gln Glu
        35                  40                  45
Pro Ala Leu Gln Ala Pro Thr Gln Arg Phe Ala Asp Leu Glu Glu Leu
    50                  55                  60
His Glu Tyr Gln Gly Arg Lys Arg Lys Glu Phe Glu Asp Tyr Val Arg
65                  70                  75                  80
Arg Asn Arg Leu Asn Met Asn Asn Trp Met Arg Tyr Ala Ser Trp Glu
                85                  90                  95
Leu Glu Gln Lys Glu Phe Arg Arg Ala Arg Ser Ile Phe Glu Arg Ala
            100                 105                 110
Leu Asp Val Asn Pro Thr Ser Val Val Leu Trp Ile Arg Tyr Ile Glu
        115                 120                 125
Ser Glu Met Arg Asn Arg Asn Ile Asn His Ala Arg Asn Leu Leu Asp
    130                 135                 140
```

```
Arg Ala Val Thr Ile Leu Pro Arg Val Asp Lys Phe Trp Tyr Lys Tyr
145                 150                 155                 160
Val Tyr Met Glu Glu Thr Leu Gly Asn Ile Gln Gly Thr Arg Gln Val
                165                 170                 175
Phe Glu Arg Trp Met Ser Trp Glu Pro Asp Glu Gly Ala Trp Ser Ala
            180                 185                 190
Tyr Ile Lys Leu Glu Lys Arg Tyr Asn Glu Phe Glu Arg Ala Arg Ala
        195                 200                 205
Ile Phe Gln Arg Phe Thr Ile Val His Pro Glu Pro Arg Asn Trp Ile
    210                 215                 220
Lys Trp Ala Arg Phe Glu Glu Glu Tyr Gly Thr Ser Asp Leu Val Arg
225                 230                 235                 240
Glu Val Tyr Gly Met Ala Ile Glu Thr Leu Gly Glu Asp Phe Met Asp
                245                 250                 255
Glu Lys Leu Phe Ile Ala Tyr Ala Lys Phe Glu Ala Lys Leu Lys Glu
            260                 265                 270
Tyr Glu Arg Ala Arg Ala Ile Tyr Lys Tyr Ala Leu Asp Arg Leu Pro
        275                 280                 285
Arg Ser Lys Ala Met Ala Leu His Lys Ala Tyr Thr Thr Phe Glu Lys
    290                 295                 300
Gln Phe Gly Asp Arg Glu Gly Val Glu Asp Val Ile Leu Ser Lys Arg
305                 310                 315                 320
Arg Val Gln Tyr Glu Glu Gln Leu Lys Glu Asn Pro Arg Asn Tyr Asp
                325                 330                 335
Val Trp Phe Asp Phe Ala Arg Leu Glu Glu Thr Ser Gly Asp Pro Gly
            340                 345                 350
Leu His His Gly Gly Gly Arg Val Ser Arg Leu Gln
        355                 360
```

<210> 32804
<211> 67
<212> PRT
<213> A.fumigatus

```
<400> 32804
Thr Thr His Leu Val Arg Val Arg Tyr Ile Asn Val Phe Asp Gly Gly
1               5                   10                  15
Val Met Ala Ser Tyr Leu Met Phe Gln Ser Ala Ser Gly Val Ser Gly
            20                  25                  30
His Asn Ile Thr Trp Ala Arg Leu Ala Leu Gly His Val Ile Thr Ser
        35                  40                  45
Gln Leu Cys Pro Thr Ile Ile Asn Thr Ser Arg Cys Ile Ala Met Ile
    50                  55                  60
Phe Gly Gly
65
```

<210> 32805
<211> 163
<212> PRT
<213> A.fumigatus

```
<400> 32805
Arg Val Pro Asp Glu Tyr Ser Asn Leu Pro Lys Glu Leu Tyr Gln Pro
1               5                   10                  15
Arg Ile Met Thr Asp Thr Phe Pro Ala Ala Leu Val Gly Pro Ser Ser
            20                  25                  30
```

```
Lys Glu Arg Lys Tyr Asp Arg Gln Leu Arg Leu Trp Ala Ala Ser Gly
        35                  40                  45
Gln Gln Ala Leu Glu Glu Ser Arg Val Leu Leu Val Asn Ser Asp Gly
    50                  55                  60
Ser Trp Gly Asp Gln Gly Thr Gly Val Ser Gly Val Ala Gly Val Glu
65                  70                  75                  80
Thr Leu Lys Asn Leu Val Leu Pro Gly Ile Gly Gly Phe Thr Ile Val
                85                  90                  95
Asp Pro Ala Val Val Thr Glu Pro Asp Leu Gly Val Asn Phe Phe Leu
            100                 105                 110
Glu Ser Glu Ser Leu Gly Lys Ser Arg Ala Glu Glu Thr Cys Arg Leu
        115                 120                 125
Leu Arg Glu Leu Asn Pro Asp Val Glu Gly Ser Phe Arg Pro Lys Val
    130                 135                 140
Tyr Met Thr Ala Thr Ser Ser Leu Ala Leu Arg Ile Gly Gly Ala Asn
145                 150                 155                 160
Leu Asn Tyr
```

<210> 32806
<211> 206
<212> PRT
<213> A.fumigatus

```
<400> 32806
Tyr Trp Thr Pro Pro His Arg Gly Leu Phe Ser Gly Asp Cys Ala Pro
1               5                   10                  15
Ala Gly Gly Pro Arg Lys Pro Ser Gln Arg Met His Ala Leu Ser Ala
            20                  25                  30
Leu Asn Leu Thr Cys Leu Ser Met Leu Cys Arg Thr Arg Pro Leu Phe
        35                  40                  45
Arg Phe Ser Ser Phe Ile Ser Tyr Pro Arg Ser His Pro Ile Tyr Pro
    50                  55                  60
Thr Leu Ser Pro Ile Tyr His Pro Pro Thr Arg Phe Gln Ser Asn Met
65                  70                  75                  80
Ala Ser Val Ile Glu Ala Ala Lys Arg Ala Ala Gly Lys Ala Ala Val
                85                  90                  95
Ala Asn His Tyr Pro Lys Asp Ala Lys Phe Val Gly Ile Gly Ser Gly
            100                 105                 110
Ser Thr Ile Val Tyr Val Val Glu Ala Ile Lys Glu Ser Gly Ile Asp
        115                 120                 125
Thr Ser Met Thr Arg Tyr Val Pro Thr Gly Phe Gln Ser Lys Gln Leu
    130                 135                 140
Ile Leu Ser Ala Gly Leu Thr Ala Val Asp Phe Asp Ser Leu Pro Glu
145                 150                 155                 160
Gly Thr Val Leu Asp Val Ala Phe Asp Gly Ala Asp Glu Val Asp Asp
                165                 170                 175
Glu Leu Asn Leu Ile Lys Gly Gly Gly Ala Cys Leu Phe Gln Glu Lys
            180                 185                 190
Ile Val Ala Leu Gln Ala Lys Glu Phe Ile Cys Val Ala Gly
        195                 200                 205
```

<210> 32807
<211> 130
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (112)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32807
Tyr Leu Arg Pro Asp Ser Arg Lys Leu Gln Ser Arg Leu Leu Thr Asn
1 5 10 15
Trp Lys Tyr Ile Pro Ile Glu Val Ala Pro Ile Ala Ala Pro Arg Val
20 25 30
Leu Thr Lys Leu Arg Glu Leu Gly Ser Ile Gln Pro Ala Ile Arg Pro
35 40 45
Ser Gly Thr Ser Lys Gly Pro Leu Lys Thr Asp Gln Asp Phe Tyr Ile
50 55 60
Ile Asp Ala Pro Phe Pro Pro Leu Leu Thr Lys Ala Asp Val Ala Ala
65 70 75 80
Gly Lys Asp Gly Ser Gly Lys Gly Gly Ile Trp Glu Val Asp Ala Leu
85 90 95
Ala Gln Ala Ile Lys Met Ile Ala Gly Val Leu Glu Val Gly Ile Xaa
100 105 110
Ser Gly Val Thr Gly Pro Gln Ala Gln Ala Leu Gly Gly Val Gly Gly
115 120 125
Gln Lys
130

<210> 32808
<211> 109
<212> PRT
<213> A.fumigatus

<400> 32808
Leu Pro Gln Ser Thr Met Leu Tyr Arg Asn Ser Val Ala Arg Ser Val
1 5 10 15
Leu Arg Ala Ile Ser Ser Ser Asn Ala Ser Val Ala Arg Ser Thr Leu
20 25 30
Ser Asn Asn Val Phe Lys Ala His Leu Thr Ser Ser Ala Arg Phe Pro
35 40 45
Ala Arg Ala Ser Ser Leu Ala Leu Thr Thr Arg Lys Pro Val Thr Thr
50 55 60
Ala Leu Val Arg Tyr Ala Ser Ser Val Pro Gly Ser Thr Asn Val Pro
65 70 75 80
Lys Val Ser Ile Thr His Val Val Ser Ser Gly Arg Ser Leu Ile Phe
85 90 95
Val Cys Arg Lys Pro Arg Leu Pro Arg Arg Thr Met Thr
100 105

<210> 32809
<211> 114
<212> PRT
<213> A.fumigatus

<400> 32809
Thr Leu Ala Phe Gly Asp Leu Gln Lys Val Ile Lys Asp Thr Phe Ser
1 5 10 15
Leu Glu Gly Thr Pro Lys Glu Ala Leu Tyr Leu Gly Met Ala Gly Val

```
            20                  25                  30
Ile Pro Tyr Leu Ala Thr Ser Leu Glu Thr Val Tyr Leu Ser Tyr Glu
        35                  40                  45
Ile Asn Arg Ala Thr Ala Thr Gly Asp Gly Leu Ile Phe Ser Gly Gln
    50                  55                  60
Thr Ala Glu Leu Met Leu His Met Leu Glu Pro Ile Gln Val Gly Tyr
65                  70                  75                  80
Gly Ala Val Val Ser Leu Asn Leu Ser Cys Cys Gln Ala Pro Cys Leu
                85                  90                  95
Thr Arg Ser Asp Pro Pro Asp Pro Leu Leu Pro Trp Ser Tyr Ser Leu
            100                 105                 110
Gly Ser
```

<210> 32810
<211> 148
<212> PRT
<213> A.fumigatus

<400> 32810

```
Arg Glu Ala Thr Leu Gln Ile Leu Ser Phe Leu Gly Ala Ile His Trp
1               5                   10                  15
Gly Leu Glu Trp Ala Gly Tyr Gly Gly Lys His Gly Tyr Lys Arg Tyr
            20                  25                  30
Ala Ala Gly Val Ile Ala Pro Ala Val Ala Trp Pro Thr Leu Leu Leu
        35                  40                  45
Pro Val Glu Tyr Ala Leu Ile Ser Gln Phe Leu Ala Phe Thr Phe Leu
    50                  55                  60
Tyr Tyr Asn Asp Ala Arg Ala Ala Ala His Gly Arg Ala Pro His Trp
65                  70                  75                  80
Tyr Gly Met Tyr Arg Phe Val Leu Thr Phe Val Val Gly Ala Ser Ile
                85                  90                  95
Val Ala Ser Leu Ile Gly Arg Glu Gln Ile Ala Asn Thr Ile Ser Thr
            100                 105                 110
Glu His Thr Ile Thr Asp Lys Ile Asn Ala Leu Leu Phe Leu Gln Lys
        115                 120                 125
Lys Glu Lys Glu Glu Ala Asp Ala Arg Arg Arg Ala Glu Leu Gly Glu
    130                 135                 140
Glu Glu Ser Glu
145
```

<210> 32811
<211> 109
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (33),(41),(97)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32811

```
Cys Phe Gln Leu Leu Ala Tyr Ala Ile Asn Asn Met Asp Gly Val Ala
1               5                   10                  15
Gly Tyr Ser Gly Trp Arg Trp Ile Phe Ile Leu Glu Gly Leu Ala Thr
            20                  25                  30
```

```
Xaa Val Val Ala Val Ile Ala Lys Xaa Ile Val Val Asp Trp Pro Glu
        35                  40                  45
Thr Ala Arg Phe Leu Asn Glu Asp Glu Arg Ala Leu Leu Leu Arg Arg
    50                  55                  60
Leu Ala Gln Asp Gln Gly Glu Ala Arg Met Asp Arg Leu Asp Lys Lys
65                  70                  75                  80
Ser Leu Arg Arg Ala Phe Ser Asp Pro Lys Ile Tyr Leu Gly Tyr Val
                85                  90                  95
Xaa Cys Pro Pro Ser Phe Asp Leu Arg Val Ile Gln Asn
            100                 105
```

<210> 32812
<211> 146
<212> PRT
<213> A.fumigatus

<400> 32812

```
Val Val Met Val Arg Ser Val Leu Asp Pro Ala Asn Ile Leu Ile Ser
1               5                   10                  15
Asp Lys Pro Ser Trp Gly Ala Thr Val Trp Ile Trp Thr Ser Glu Val
            20                  25                  30
Phe Ser Met Asn Val Arg Ala Gln Ala Val Gly Met Ala Ser Gln Thr
        35                  40                  45
Gln Asn Val Ala Asn Ala Ile Val Gln Gln Phe Phe Pro Ile Phe Leu
    50                  55                  60
Lys Asn Cys Gly Phe Tyr Ala Phe Tyr Met Phe Ala Gly Val Asn Phe
65                  70                  75                  80
Leu Leu Ala Leu Phe Val Trp Phe Phe Ile Pro Glu Thr Lys Gln Val
                85                  90                  95
Pro Leu Glu Glu Ile Asp Ala Leu Phe Gly Gly Ala Asn His Val Thr
            100                 105                 110
His Gly Glu Arg Met Met Ile Gly Glu Lys Glu Lys His Phe Glu Asp
        115                 120                 125
Gln Ala Asn Glu Lys Gly Asp Ala Val Thr Ile Glu Asn Leu Glu Ala
    130                 135                 140
Arg Arg
145
```

<210> 32813
<211> 205
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (105)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32813

```
Gly Tyr Ser Leu Ala Ala Ala Cys Leu Thr Pro Val Gly Thr Ser Thr
1               5                   10                  15
Gly Thr Gly Thr Met Asp Glu Lys Asp Asp Cys Thr His Ala Thr Ile
            20                  25                  30
Glu Asp Ile Lys Ser Ala Ser Leu Leu Pro Asp Glu Leu Asp Arg Ala
        35                  40                  45
Ala Glu Arg Arg Leu Leu Trp Lys Cys Asp Leu His Val Val Pro Ile
```

```
    50                  55                  60
Leu Thr Val Leu Phe Met Phe Ala Phe Leu Asp Arg Ile Asn Ile Gly
65                  70                  75                  80
Asn Ala Arg Leu Met Gly Leu Glu Arg Asp Leu Arg Met Thr Gly His
                85                  90                  95
Gln Tyr Asn Ile Ala Leu Phe Val Xaa Phe Val Pro Tyr Ile Leu Phe
            100                 105                 110
Glu Val Pro Ser Asn Met Leu Leu Lys Lys Met Arg Pro Ser Trp Trp
        115                 120                 125
Leu Ser Gly Ile Met Phe Ala Trp Gly Val Phe Ser Ser Ser Cys Ala
    130                 135                 140
Val Ala Glu Val Val Ser Asp Ala Asp Ser Ala Thr Gly Ile Leu Thr
145                 150                 155                 160
Val Cys Gln Gly Val Thr Lys Ser Phe Gln Gly Leu Val Val Cys Arg
                165                 170                 175
Val Leu Ile Gly Val Phe Glu Ala Gly Phe Met Pro Gly Thr Cys Phe
            180                 185                 190
Phe Leu Ser Ala Phe Gln Ser Ser His Ala Asp Phe Ser
        195                 200                 205
```

<210> 32814
<211> 244
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (18),(49),(63)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32814

```
Glu Val Thr Ala Thr Cys Leu Phe Arg Ser Gln Asp Leu Leu Gly Val
1               5                   10                  15
Cys Xaa Met Ser Thr Val Phe Arg Ser Gln Ser Asp Thr Glu Leu Met
            20                  25                  30
Val Asn Phe Leu Arg Arg Pro Leu Met Tyr Phe Gly Ile Val Asn Thr
        35                  40                  45
Xaa Tyr Ala Val Ser Phe Phe Thr Pro Thr Ile Leu Asn Gln Xaa Gly
    50                  55                  60
Trp Thr Ala Val Arg Ala Gln Val Met Ser Ile Pro Ile Tyr Cys Val
65                  70                  75                  80
Ala Thr Val Ile Ala Phe Ser Ala Ala Tyr Thr Ser Asp Arg Leu Arg
                85                  90                  95
His Arg Tyr Leu Phe Thr Leu Ala Gly Cys Leu Ile Ala Thr Met Gly
            100                 105                 110
Tyr Val Ile Leu Leu Cys Gln Ala Ser Val Pro Val Gly Ala Arg Tyr
        115                 120                 125
Phe Ala Val Phe Ala Ile Thr Gly Gly Gly Tyr Leu Thr Gln Pro Ile
    130                 135                 140
Leu Met Gly Trp Leu Ser Asn Asn Met Ala Gly His Tyr Lys Gln Ser
145                 150                 155                 160
Ile Ala Ser Ala Met Gln Ile Gly Phe Gly Asn Cys Gly Gly Leu Val
                165                 170                 175
Ala Ser Asn Ile Phe Phe Lys Glu Glu Ala Pro Arg Tyr Thr Thr Gly
            180                 185                 190
Tyr Gly Val Ser Leu Gly Met Thr Trp Ile Cys Gly Ala Ala Cys Ala
```

```
        195                 200                 205
Leu Phe Leu Thr Tyr Leu Val Arg Glu Asn Arg Ile Arg Asp Ala Gly
    210                 215                 220
Arg Arg Asn Trp Arg Leu Glu Leu Pro Gln Asp Glu Val Glu Ile Leu
225                 230                 235                 240
Gly Ala Asp His
```

<210> 32815
<211> 86
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (17),(41)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32815

```
Leu Glu Val Asp Gln Ala Ile Asp Leu Gly Ser Glu Pro Ser Glu Gly
1               5                   10                  15
Xaa Ala Thr Glu Asp Gly Ile His Ala Asp Val Asp Ser Ala Pro Pro
            20                  25                  30
Ala Ser Gln Ile Glu Glu His Leu Xaa Gly Gln Asp Thr Val Ser Ser
        35                  40                  45
Gln Ile Glu Glu Arg Ile Val Trp Pro Asn His Ala Ser Gly Asp Val
    50                  55                  60
Gly Asn Thr Val Ser Pro Asp Leu Gly Gln Ser Leu Leu Gly Leu Gly
65                  70                  75                  80
Gln Ser Leu Gln Asp Gly
                85
```

<210> 32816
<211> 196
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (185),(187),(191),(193)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32816

```
Val Leu Pro Ser Val Ile Ala Lys Gly Pro Glu Ser Ser Glu His Ala
1               5                   10                  15
Asn His Ser Phe Gly Arg Ile Ile Ile Leu Glu Ala Leu Ala Cys Glu
            20                  25                  30
Pro Gly Gly Pro Leu Val His Ile Trp His Glu Val Ala Asp Gln Ser
        35                  40                  45
Arg Leu Leu Glu Leu Val Pro Ser His Gln Ser Asp Val Leu Pro Asp
    50                  55                  60
Lys Arg Met Ser Arg Lys Val Arg Ile Asp Leu Thr Glu Phe Asp Ala
65                  70                  75                  80
Glu Pro Ser Asp Leu Asp Leu Ile Val Ser Thr Ser Arg Thr Leu Asn
                85                  90                  95
Val Ala Arg Arg Ser Val Ser Ala Gln Ile Ser Thr Ala Val Gln Ala
```

```
            100                 105                 110
Ile Ser Gly Ser Asp Val Glu Leu Ser Pro Gly Leu Val Ala Ala Leu
        115                 120                 125
Thr Phe Ser Leu Val Leu Leu Asp Pro Leu Leu Arg Ile Asn Lys Pro
    130                 135                 140
Val Gly Lys Glu Phe Leu Cys Cys Ser Ile Pro His Cys Ser Gly Asn
145                 150                 155                 160
Pro Leu Pro Gly His Pro His Ala Arg Arg Phe His Gln Leu Arg Leu
                165                 170                 175
Trp Arg Arg Cys Ser Leu Ile Asp Xaa Val Xaa Ser Tyr Ala Xaa His
            180                 185                 190
Xaa Thr Ile Trp
        195
```

<210> 32817
<211> 336
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (174),(198)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32817

```
Gly Tyr Thr Gln Trp Thr Arg Ala Pro Leu Trp Ile Thr Ala Ser Thr
1               5                   10                  15
Arg Ser Val Arg Ser Phe His Asn Ala Ser Asp Lys Pro Asn Arg Gly
            20                  25                  30
Phe Pro Arg Ser Pro Gln Thr His Cys Ser Leu Leu Val His Asp Ser
        35                  40                  45
Ser Gln Lys Pro Tyr Ala Leu His Val Asp Arg Met Arg Ser Arg Ala
    50                  55                  60
Cys Ser Ser Leu Leu Pro Arg Thr Ser Ala Thr Thr Leu Ala Ile Gly
65                  70                  75                  80
Asp Leu Arg Val Arg Arg Ser Arg Arg Met Cys Ala Pro Arg Asn Pro
                85                  90                  95
Val Ala Pro Val Arg Asn Thr Val Gly Ser Pro Thr Ser Met Ser Ser
            100                 105                 110
Ile Arg Ser Gly Lys Asp Leu Gly Arg Val Ser Thr Ser Phe Leu Ala
        115                 120                 125
Ser Leu Glu Tyr Ser Ser Ser Ala Ser Leu Glu Val Ala Arg Val Ser
    130                 135                 140
Ala Val Ala Ser Ala Ser Leu Ala Leu Leu Ala Asn Asp Ser Lys Leu
145                 150                 155                 160
Thr Lys Arg Ser Ile Ser Ala Ala Asn Pro Leu Arg Val Xaa Leu Arg
                165                 170                 175
Lys Met Ala Phe Met Leu Met Ser Ile Pro Arg His Leu Arg Leu Arg
            180                 185                 190
Ser Lys Asn Ile Cys Xaa Ala Arg Ile Leu Cys Pro Pro Arg Ser Lys
        195                 200                 205
Asn Glu Ser Ser Gly Pro Ile Met Arg Ala Val Thr Leu Glu Ile Arg
    210                 215                 220
Leu Ala Gln Ile Trp Ala Lys Ala Cys Ser Val Ser Asp Arg Val Cys
225                 230                 235                 240
Lys Thr Asp Asp Leu Arg Arg Gly Ala Ala Ala Leu Ser Ser Ala Val
```

```
                245                 250                 255
Ser Gly Asn Gly Asn Ala Gly Leu Ser Ile Leu Pro Leu Gly Phe Arg
            260                 265                 270
Gly Ile Arg Phe Arg Gly Met Lys Thr Val Gly Thr Ala Tyr Ala Gly
        275                 280                 285
Ser Leu Leu Arg Lys Cys Ser Arg Ala Ser Ser Arg Arg Gly Arg Asn
    290                 295                 300
Arg Leu Ser Met Pro Thr Ile Pro Ser Ala Glu Ser Ser Ser Leu Arg
305                 310                 315                 320
Pro Leu Leu Ala Ser Gln Ala Gly His Leu Phe Ile Ser Gly Thr Lys
                325                 330                 335
```

<210> 32818
<211> 128
<212> PRT
<213> A.fumigatus

<400> 32818

```
Ser Arg Val Thr Ala Arg Thr Val Ser Tyr Pro Ile Glu Ile Ile Thr
1               5                   10                  15
Thr Gly Ala Glu His Val Leu Thr Cys His Leu Ser Met Pro Leu Tyr
            20                  25                  30
His Phe Val Thr Ala Asp Leu Pro Ser Asn Thr Lys Ala Pro Glu Leu
        35                  40                  45
Asp Asp Val His Ala Ala Ala Ser Leu Arg Ala Asp Ala Ala Trp Ser
    50                  55                  60
Gly Ile Asp Ala Ser Ala Gly Ala Gly Val Thr Glu Glu Leu Val Gly
65                  70                  75                  80
Leu Tyr Ala Ser Tyr Leu Val Thr Ile Gly Phe Leu Pro Pro Pro Ser
                85                  90                  95
Val Ser Thr Ile Gly Val Arg Pro Leu Pro Lys Val Gln Leu Ser Glu
            100                 105                 110
Asp Gln Lys Lys Ala Leu Ala Asn Val Gly Gly Arg Gly Gly Thr Ser
        115                 120                 125
```

<210> 32819
<211> 127
<212> PRT
<213> A.fumigatus

<400> 32819

```
Pro Asp Gln Trp Leu His Ser Arg Leu Lys Arg Leu Thr Asn Ile Pro
1               5                   10                  15
Ser Leu Ala Thr Asn Thr Asp Asp Phe Leu Ile Arg Met Met Lys Gly
            20                  25                  30
Cys Ile Gln Leu Ser Ala Arg Pro Asn Ile His Asn Thr Val Asn Met
        35                  40                  45
Val Pro Val Asp His Val Ala Arg Val Val Ile Ala Gly Ala Phe Gln
    50                  55                  60
Pro Pro Cys Thr Pro Ile Gly Val Ala Gln Val Thr Gly His Pro Arg
65                  70                  75                  80
Leu Arg Phe Asn Gln Phe Leu Gly Ala Leu Gln Thr Tyr Gly Tyr Asp
                85                  90                  95
Val Pro Gln Val Asp Tyr Val Pro Trp Lys Met Ser Leu Glu His Tyr
            100                 105                 110
Val Asn Asp Gly Lys His Asp Asp Pro Glu Ser Gln His Ala Leu
```

115 120 125

<210> 32820
<211> 567
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (248),(272)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32820
Thr Thr Lys Lys Phe Leu Thr Asn Trp Phe Val Asp Pro Gln Lys Trp
1 5 10 15
Val Glu Lys Asp Lys Ala Glu Ser Gln Gly Gly Asn Glu Pro Trp Arg
20 25 30
Gln Phe Tyr Val Gly Pro Arg Asp Arg Leu Tyr Arg Ser Gly Tyr Leu
35 40 45
Gly Arg Tyr Thr Pro Ser Gly Asp Val Glu Cys Ser Gly Arg Ala Asp
50 55 60
Asp Gln Val Lys Ile Arg Gly Phe Arg Ile Glu Leu Gly Glu Ile Asp
65 70 75 80
Thr His Leu Ser Arg His Pro Leu Val Arg Glu Asn Val Thr Leu Val
85 90 95
Arg Arg Asp Lys Phe Glu Glu Pro Thr Leu Val Ser Tyr Phe Val Pro
100 105 110
Asp Met Asn Lys Trp Pro Ala Trp Leu Ala Ser Lys Gly Leu Lys Asp
115 120 125
Asp Asp Ser Ala Glu Gly Met Val Gly Met Leu Arg Arg Phe Arg Pro
130 135 140
Leu Arg Asp Asp Ala Arg Glu His Leu Arg Ser Lys Leu Pro Ala Tyr
145 150 155 160
Ala Val Pro Thr Val Phe Ile Pro Leu Lys Arg Met Pro Leu Asn Pro
165 170 175
Asn Gly Lys Ile Asp Lys Pro Ala Leu Pro Phe Pro Asp Thr Ala Glu
180 185 190
Leu Ser Ala Ala Ala Pro Arg Arg Arg Ser Ser Val Leu Gln Thr Leu
195 200 205
Ser Glu Thr Glu Gln Ala Leu Ala Gln Ile Trp Ala Asn Arg Ile Ser
210 215 220
Asn Val Thr Ala Arg Met Ile Gly Pro Asp Asp Ser Phe Phe Asp Leu
225 230 235 240
Gly Gly His Ser Ile Leu Ala Xaa Gln Met Phe Phe Asp Leu Arg Arg
245 250 255
Arg Trp Arg Gly Ile Asp Ile Ser Met Asn Ala Ile Phe Arg Ser Xaa
260 265 270
Thr Leu Arg Gly Phe Ala Ala Glu Ile Asp Arg Leu Val Asn Phe Glu
275 280 285
Ser Phe Ala Ser Asn Ala Asn Glu Ala Asp Ala Thr Ala Asp Thr Leu
290 295 300
Ala Thr Ser Asn Glu Ala Asp Asp Glu Tyr Ser Lys Asp Ala Arg Lys
305 310 315 320
Leu Val Glu Thr Leu Pro Arg Ser Phe Pro Glu Arg Ile Glu Asp Met
325 330 335
Leu Val Gly Glu Pro Thr Val Phe Leu Thr Gly Ala Thr Gly Phe Leu

```
            340                 345                 350
Gly Ala His Ile Leu Arg Asp Leu Leu Thr Arg Lys Ser Pro Met Ala
        355                 360                 365
Arg Val Val Ala Leu Val Arg Gly Lys Ser Asp Glu Gln Ala Leu Asp
    370                 375                 380
Arg Ile Arg Ser Thr Cys Arg Ala Tyr Gly Phe Trp Asp Glu Ser Trp
385                 390                 395                 400
Thr Ser Arg Leu Gln Cys Val Cys Gly Asp Leu Gly Asn Pro Arg Phe
                405                 410                 415
Gly Leu Ser Glu Ala Leu Trp Asn Asp Leu Thr Glu Arg Val Asp Ala
            420                 425                 430
Val Ile His Asn Gly Ala Leu Val His Trp Val Tyr Pro Tyr Ser Thr
        435                 440                 445
Leu Lys Pro Ala Asn Val Leu Gly Thr Ile Asp Ala Leu Lys Leu Cys
    450                 455                 460
Ala Ser Gly Lys Pro Lys Gln Phe Ser Phe Val Ser Ser Thr Ser Val
465                 470                 475                 480
Leu Asp Asn Asp His Tyr Val Leu Glu Ser Glu Arg Ile Ile Ala Ala
                485                 490                 495
Gly Gly Ala Gly Ile Ser Glu Asp Asp Asp Leu Glu Gly Ser Ser Val
            500                 505                 510
Gly Leu Gly Thr Gly Tyr Gly Gln Ser Lys Trp Ala Gly Glu Tyr Leu
        515                 520                 525
Val Arg Glu Ala Gly Arg Arg Gly Leu Lys Gly Thr Ile Val Arg Pro
    530                 535                 540
Gly Tyr Val Leu Gly Asp Ser Lys Thr Gly Ser Lys His His Asn Leu
545                 550                 555                 560
Thr Ser Gly Cys Thr Arg Asp
                565
```

<210> 32821
<211> 611
<212> PRT
<213> A.fumigatus

<400> 32821

```
Pro His Ala Leu Ser Phe Arg Pro Val Val Lys Thr Ser Arg Ser Gly
1               5                   10                  15
Thr Ser Ser Val Asp Ser Gly Thr Thr Arg Lys Arg Gln Ser Ser Val
            20                  25                  30
Arg Gly Trp Gln Asp Tyr Ile Phe Gly Ser Gly Thr Ala Ser Arg Lys
        35                  40                  45
Thr Ser Arg Ala Ser Ser Ile Met Asp Asp Val Gly Glu Val Glu Glu
    50                  55                  60
Gly Ala His Asn Pro Arg Ala Ser Asn Asn Asn Arg Arg Lys Ala Leu
65                  70                  75                  80
Asp Glu Gln Leu Phe Gln Pro Pro Ser Glu Arg Ser Gly Gly Gly Ile
                85                  90                  95
Ala Ala Lys His Ala Val Ser Gly Leu Val Ser Gly Asp Asp Ala Ser
            100                 105                 110
Thr His Ser Arg Lys Ser Ser Lys Ser Ile Thr Ser Trp Thr Val Arg
        115                 120                 125
Leu Phe Ala Gly Gly Ser His Asn Ser Arg Asp Glu Asn Asp Ala Gly
    130                 135                 140
Ser Val Arg Ser Arg Thr Ser Ser Ile His Gln Asp Lys Thr Arg Gly
145                 150                 155                 160
```

```
Ser Ser Ser Thr Ser Thr Asn Pro Lys Thr Ala Leu Ser Ala Val Ala
                165                 170                 175
Ala Leu Lys Arg Ile Asn Ser Asn Thr Ser Ile His Ser Ala Pro Gly
            180                 185                 190
Arg Ser Thr Asn Gly Ser Thr Gly Pro Gly Arg Thr Ala Ala Pro Ser
        195                 200                 205
Gly Arg Arg His Ala Ala Ser Ser Val Ser Gln Val Ala Ser Ser Glu
    210                 215                 220
Ala Gly Asp Lys Ser Ser Thr Asn Leu Gly Pro Val Glu Met Asp Ala
225                 230                 235                 240
Ile Leu Pro Met Glu Ser Arg Pro Pro Thr Leu Ser His Met Tyr Asn
                245                 250                 255
Asn Tyr Gln Pro Gly Glu Leu Leu Thr Asp Arg Phe Gly Phe Ile Tyr
            260                 265                 270
Asp Gln Arg Arg Lys Lys Arg Gln Arg Glu Ala Ala Met Ser Lys Asn
        275                 280                 285
Asn Ser Lys Arg Leu Ser Ile Ala Glu Thr Leu Ser Ser Phe Arg Thr
    290                 295                 300
Glu Thr Ser Asp Gly Asp Glu Asp Ala Val Gln Gly Ile Ala Glu Pro
305                 310                 315                 320
Gln Arg Ser Pro Phe Ser Val Ser Pro Glu Asp Pro Glu Ala Gly Ala
                325                 330                 335
Val Ala Ile Arg Lys Trp Gln Asp Tyr Leu Lys Phe Pro Thr Arg Pro
            340                 345                 350
Thr Glu Leu Leu Ser His Thr Pro Ser Ala Gly Pro Ile Val Ser Leu
        355                 360                 365
Thr Thr Thr Ser Glu Pro Pro Pro Arg Ser Thr Ala Val Ala Val Asp
    370                 375                 380
Arg His Gly Ser Leu Ser Val Asn Pro Asn Ala Pro Pro Ser Ala Ser
385                 390                 395                 400
Thr Ser Thr Val Val Ala Asp Arg Pro Glu Phe Ala Gly Thr Ser Ala
                405                 410                 415
Asp Glu Pro Thr Thr Ala Ala Thr Gln Ser Ala Ser Thr Glu Asn Glu
            420                 425                 430
Pro Val Lys Leu Leu Leu Glu Gln Leu Thr Glu Leu His Asp Ala Leu
        435                 440                 445
Gln Arg Asp Arg Thr Val Arg Trp Asn Glu Phe Met Arg Lys Val Arg
    450                 455                 460
Ala Glu Arg Arg Lys Glu Gly Glu Ala Ala Ala Ala Ala Ala Ala Ala
465                 470                 475                 480
Ala Ile Ser Thr Arg Ala Ala Gln Ser Val Asp Thr Pro Glu Ala Ser
                485                 490                 495
Leu Ala Val Gly Glu Val Val Gly Ile Ala Asn Leu Gly Asn Lys Gly
            500                 505                 510
Lys Val Gly Arg Ala Lys Trp Arg Glu Phe Arg Ser Leu Val Leu Gly
        515                 520                 525
Gly Ile Pro Val Ala Leu Arg Ala Lys Ile Trp Ser Glu Cys Ser Gly
    530                 535                 540
Ala Ser Ser Met Arg Val Pro Gly Tyr Tyr Asp Asp Leu Val Ala Gly
545                 550                 555                 560
Ile Gly Gly Ser Glu Pro Asp Pro Ser Val Val Ala Gln Ile Asp Met
                565                 570                 575
Asp Ile Asn Arg Thr Leu Thr Asp Asn Val Phe Phe Arg Lys Gly Pro
            580                 585                 590
Gly Val Ser Lys Leu Arg Glu Val Leu Leu Ala Tyr Ser Arg Arg Asn
        595                 600                 605
```

Pro Glu Val
610

<210> 32822
<211> 62
<212> PRT
<213> A.fumigatus

<400> 32822
Lys His Pro Pro Pro Ala Leu Leu Thr Ile Thr Asp Tyr Leu Leu His
1 5 10 15
Asn Pro Ile Gly Ser Cys Tyr Glu Ser Phe Ile Ser Glu Val Pro Pro
20 25 30
Lys Leu Thr Ala His Leu Glu Ser Val Gly Arg Pro Thr Pro Asn Pro
35 40 45
Glu Leu Pro Trp Val Pro Pro Arg Leu Ser Arg Met Ala Cys
50 55 60

<210> 32823
<211> 194
<212> PRT
<213> A.fumigatus

<400> 32823
Pro Gly Thr Arg Met Glu Asp Ala Pro Leu His Ser Asp Gln Ile Phe
1 5 10 15
Ala Arg Arg Ala Thr Gly Ile Pro Pro Arg Thr Ser Asp Arg Asn Ser
20 25 30
Arg His Leu Ala Arg Pro Thr Leu Pro Leu Phe Pro Arg Leu Ala Ile
35 40 45
Pro Thr Thr Ser Pro Thr Ala Arg Asp Ala Ser Gly Val Ser Thr Asp
50 55 60
Cys Ala Ala Leu Val Asp Ile Ala Ala Ala Ala Ala Ala Ala Ala Ala
65 70 75 80
Ser Pro Ser Phe Leu Arg Ser Ala Arg Thr Leu Arg Met Asn Ser Phe
85 90 95
His Leu Thr Val Leu Ser Arg Trp Arg Ala Ser Trp Ser Ser Val Asn
100 105 110
Cys Ser Arg Ser Asn Leu Thr Gly Ser Phe Ser Val Asp Ala Leu Cys
115 120 125
Val Ala Ala Val Val Gly Ser Ser Ala Asp Val Pro Ala Asn Ser Gly
130 135 140
Arg Ser Ala Thr Thr Val Asp Val Asp Ala Asp Gly Gly Ala Phe Gly
145 150 155 160
Leu Thr Glu Ser Glu Pro Cys Arg Ser Thr Ala Thr Ala Val Leu Arg
165 170 175
Gly Gly Gly Ser Leu Val Val Val Ser Asp Thr Ile Gly Pro Ala Asp
180 185 190
Gly Val

<210> 32824
<211> 286
<212> PRT
<213> A.fumigatus

<400> 32824
Gln Asp Gln Leu Ile His Asn Pro Pro Tyr Ala Asp Trp Gln Cys Cys
1 5 10 15
Leu Asn Ala Gly Ser Thr Tyr Gly Trp Asp Thr Val Leu Arg Met Leu
20 25 30
Cys Thr Arg Gly Asp Tyr Ile Leu Met Glu Glu Tyr Thr Phe Ser Ser
35 40 45
Ala Lys Glu Thr Ala Leu Pro Leu Gly Val Lys Val Ala Ser Val Lys
50 55 60
Met Asp Ala Glu Gly Leu Leu Pro Glu Ser Leu Asp Glu Val Leu Ser
65 70 75 80
Asn Trp Asp Glu Ala Ser Arg Gly Ser Arg Lys Pro Phe Val Leu Tyr
85 90 95
Thr Ile Pro Thr Gly Gln Asn Pro Thr Gly Ala Thr Gln Gln Leu Glu
100 105 110
Arg Arg Lys Ala Val Tyr Lys Val Ala Gln Lys His Asp Leu Ile Ile
115 120 125
Val Glu Asp Glu Pro Tyr Tyr Phe Leu Gln Met Gln Pro Tyr Thr Gly
130 135 140
Pro Asp Arg Glu Pro Val Pro Pro Pro Ala Ser His Asp Glu Phe Ile
145 150 155 160
Lys Ser Leu Ile Pro Ser Tyr Leu Ser Leu Asp Val Asp Gly Arg Val
165 170 175
Leu Arg Leu Glu Ser Phe Ser Glu Val Leu Ser Pro Gly Ser Arg Thr
180 185 190
Gly Trp Ile Val Gly Pro Glu Gln Leu Val Glu Arg Phe Met Arg Asn
195 200 205
Cys Glu Thr Gly Ala Gln His Pro Ser Gly Ile Ser Gln Ile Val Leu
210 215 220
Phe Lys Leu Leu Asp Glu His Trp Gly His Ser Gly Tyr Leu Asp Trp
225 230 235 240
Leu Ile Asn Leu Arg Met Gln Tyr Thr Gly Arg Arg Asp Ala Ile Val
245 250 255
Asn Ala Cys Glu Lys Tyr Leu Pro Lys Glu Ile Ala Lys Trp Asn Pro
260 265 270
Pro Ala Ala Gly Met Phe Val Ser Ile Ser Pro Pro Thr Ile
275 280 285

<210> 32825
<211> 205
<212> PRT
<213> A.fumigatus

<400> 32825
Phe Leu Pro Tyr Gly Ser Asn Pro Glu Ile Phe Pro Gln Lys Lys Pro
1 5 10 15
Cys Gly Pro Met Glu Ala Val Pro Leu Pro Pro Ile Glu Pro Thr Gln
20 25 30
Ile Asn Pro Thr Tyr Pro Asn Ser Trp Ile Asn Cys Gly Gly Gly Gly
35 40 45
Met Gly Trp Ser Gly Gly Gly Ala Trp Glu Ser Ser Trp Leu Arg Thr
50 55 60
Ile Ser Thr Gly Glu Lys Asn Lys Gly Lys Phe Val Cys Gln Val Val
65 70 75 80
Gly Asp Gly Thr Ile Leu Phe Ser Val Pro Gly Ser Val Tyr Trp Ile
85 90 95

```
Ala Arg Arg Tyr Asn Ile Pro Val Leu Thr Ile Val Leu Asp Asp Arg
            100                 105                 110
Gly Trp Asn Ala Pro Arg Arg Ser Met Leu Val Val His Pro Asn Gly
        115                 120                 125
Asp Gly Ser Arg Ala Thr Asn Glu Asp Leu Asn Ile Ser Phe Ala Pro
    130                 135                 140
Thr Pro Asp Tyr Ser Gly Ile Ala Lys Ala Ala Ala Gly Gly Glu Leu
145                 150                 155                 160
Trp Ala Gly Arg Val Ala Thr Val Ala Glu Leu Gly Lys Leu Leu Pro
                165                 170                 175
Glu Ala Ile Gln Ser Val Leu Asn Gly Thr Ala Ala Val Leu Glu Ala
            180                 185                 190
Gln Leu Asp Gly Thr Thr Gly Lys Tyr Val Glu Lys Lys
        195                 200                 205
```

<210> 32826
<211> 97
<212> PRT
<213> A.fumigatus

<400> 32826

```
Gln Ser Thr Leu Lys Gly Ala Ala Arg Tyr Leu Lys Thr Pro Gly Ile
1               5                   10                  15
Pro Ser Arg Gln Ser Leu His Asn Arg Asp Ile Gly Pro His Glu Met
            20                  25                  30
Leu Ile Leu Thr Thr Val Gly Leu Ile Ser Leu Gly Gly Gly Leu Pro
        35                  40                  45
Ser Pro Glu Tyr Phe Pro Phe Glu Glu Ile Ser Val Lys Val Pro Thr
    50                  55                  60
Pro Pro Gly Phe Ser Pro Pro Glu Thr Gln Glu Ser Gly Ala Val Leu
65                  70                  75                  80
Thr Ala Lys Lys Gly Asp Val Gln Ala Ala Arg Ser Leu Tyr Gly Thr
                85                  90                  95
Tyr
```

<210> 32827
<211> 370
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (370)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32827

```
Leu Ile Tyr Phe Asn Leu Ala Ala Arg Tyr Pro Lys Ile Thr Asn Asp
1               5                   10                  15
Lys Leu Thr Phe Val Ala Gln Met Ser Arg Thr Leu Thr Asn Val Ile
            20                  25                  30
Arg Leu Asp Ser Phe Pro Thr Phe Cys Ala Leu Leu Val Ala Gly Ser
        35                  40                  45
Thr Val Leu Pro Val Leu Leu Leu Arg Leu Cys Ala Leu Val Ser Ser
    50                  55                  60
Arg Ile Gly Lys Ile Ser Gly Pro Val Lys Ser Arg Val Phe Leu Arg
```

```
65                  70                  75                  80
Phe Val Arg Phe Val Ala Ala Phe Val Ser Ala Trp Phe Ser Phe Gln
                85                  90                  95
Leu Leu Asn Lys Lys Pro Ile Arg Gln Gln Gly Ser Asp Val Ile Ser
            100                 105                 110
Ser His Lys Thr Gly Ser Gly Ala Asn Ala Gly His Ser Pro Glu Lys
        115                 120                 125
Lys Ile Thr Pro Gln Tyr Ser Pro Asp Leu Ala Gly Arg Thr Met Asp
    130                 135                 140
Leu Thr Leu Phe Thr Phe Thr Arg Ala Met Asp Ala Leu Val Cys Leu
145                 150                 155                 160
Gly Trp Ser Arg Trp Arg Ala Ser Arg Arg Gly Gln Asn Arg Trp Ser
                165                 170                 175
Leu Val Glu Thr Val Ala Pro Val Leu Ala Asp Thr Gly Leu Phe Ala
            180                 185                 190
Ala Ser Ser Ala Val Val Met Trp Ala Trp Phe Tyr Leu Pro Glu Arg
        195                 200                 205
Leu Pro Arg Ser Tyr Gly Lys Trp Ile Gly Glu Val Ala Lys Val Asp
    210                 215                 220
Ile Arg Leu Ile Glu Ala Leu Arg Arg Ala Arg Arg Gly Ile Phe Val
225                 230                 235                 240
Tyr Gly Lys Glu Thr Gly Gln Ala Arg Leu Leu Glu Ser Met Cys Glu
                245                 250                 255
Asp Tyr Asn Trp Pro Arg Glu Trp Gly Asp Pro Ser Lys Thr Ile Pro
            260                 265                 270
Ile Pro Cys Glu Met Val His Met Gly Cys Gly Pro Asn Cys Glu Lys
        275                 280                 285
His Ala Val Trp Arg Phe Ala Lys Thr Phe Lys Phe Ala Cys Ala Thr
    290                 295                 300
Tyr Ile Pro Leu Gln Val Val Phe Arg Val Arg Ser Met Lys Thr Met
305                 310                 315                 320
Ser Ser Leu Trp Arg Ala Leu Ala Asp Ala Leu Arg Ser Ser Thr Phe
                325                 330                 335
Leu Ala Ser Phe Val Ser Ile Phe Tyr Tyr Ser Val Cys Leu Ala Arg
            340                 345                 350
Thr Arg Ile Gly Pro Lys Ile Phe Ser Arg Glu Thr Val Thr Pro Gln
        355                 360                 365
Met Xaa
    370
```

<210> 32828
<211> 83
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (9)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 32828
Ser Asn Leu Lys Ser Arg Asn Val Xaa His Leu His Ala Pro Val Asn
1               5                   10                  15
Gly Trp Leu Gly Thr Tyr Ser Pro Gly Ser Gln Pro Pro Leu Thr Gly
            20                  25                  30
Arg Lys Lys Ser Ala Pro Gln Phe Ser Glu Trp Lys Ile Asn Gln Phe
```

```
        35                  40                  45
Gly Thr Ile Lys Phe Asn Phe Pro Glu Gln Ala Phe Arg Lys Pro Pro
    50                  55                  60
Asn Phe Pro Pro Ala Val Leu Leu Cys Ser Gly Pro Lys Asn Pro Pro
65                  70                  75                  80
Leu Arg Gly
```

<210> 32829
<211> 398
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (381)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32829

```
Arg Val Ser Pro Thr Ala Ala Gly Ile Asn Ala Ile Val Gly Pro Tyr
1               5                   10                  15
Ile Gly Pro Ser Asp Ala Leu Leu Thr Tyr Leu Pro Gln Ala His Ile
            20                  25                  30
Leu Glu Phe Met Phe Glu Asn Leu Cys Leu Phe Trp Gly Gly Thr Met
        35                  40                  45
Gly Tyr Gly Asn Pro Arg Thr Leu Ser Asp Thr Ser Met Arg Asn Ser
    50                  55                  60
Lys Gly Asp Ile Arg Glu Phe Lys Pro Thr Ile Leu Val Gly Val Pro
65                  70                  75                  80
Ala Val Trp Glu Ser Val Lys Lys Gly Val Leu Asn Asn Leu Asn Lys
                85                  90                  95
Ala Ser Phe Leu Leu Arg Gly Leu Phe Trp Gly Ala Met Thr Ala Lys
            100                 105                 110
Asn Phe Leu Leu Thr Asn Gly Phe Ser Gly Ala Ser Thr Ser Ala Ser
        115                 120                 125
Ile Leu Asp Ala Val Val Phe Arg Gln Leu Met Glu Ala Thr Gly Gly
    130                 135                 140
Arg Leu Arg Ile Val Leu Asn Gly Gly Gly Pro Val Ser Lys Glu Thr
145                 150                 155                 160
His Lys Phe Leu Ser Met Ala Ile Ala Pro Met Ile Ser Gly Tyr Gly
                165                 170                 175
Leu Thr Glu Thr Ser Ala Met Gly Ala Leu Asn Asp Pro Met Ala Trp
            180                 185                 190
Asn Pro Asp Ala Leu Gly Glu Ile Pro Gly Cys Ile Glu Ile Lys Leu
        195                 200                 205
Val Asp Phe Pro Asp Ala Gly Tyr Phe Thr Lys Asn Asp Pro Pro Gln
    210                 215                 220
Gly Glu Ile Leu Ile Arg Gly Gly Ser Val Thr Ser Tyr Tyr Trp Asp
225                 230                 235                 240
Asn Glu Glu Glu Thr Lys Ala Ala Phe Thr Glu Asp Gly Trp Phe Arg
                245                 250                 255
Thr Gly Asp Ile Gly Glu Phe Asp Lys Asn Gly His Leu Lys Ile Ile
            260                 265                 270
Asp Arg Lys Lys Asn Leu Val Lys Thr Leu Asn Gly Glu Tyr Ile Ala
        275                 280                 285
Leu Glu Lys Leu Glu Ser Val Tyr Arg Ser Ser Pro Val Val Gly Asn
```

```
    290                 295                 300
Ile Cys Val Tyr Ala Ala Glu Asp Gln Asp Lys Pro Val Ala Ile Ile
305                 310                 315                 320
Val Pro Val Glu Val Ala Leu Lys Lys Ile Ala Ser Glu Asn Gly Ile
                325                 330                 335
Glu Gly Asp Ser Val Glu Ser Leu Val His Asn Glu Lys Leu Lys Ser
            340                 345                 350
Ile Val Leu Lys Gln Leu Gln Ser Ala Gly Lys Ala Gly Gly Leu Arg
        355                 360                 365
Gly Ile Glu Val Ile Asn Gly Val Val Leu Ser Asp Xaa Asp Gly His
    370                 375                 380
Ser Glu Cys Ser Leu Thr Thr Leu Leu Phe Gln Thr Thr Ser
385                 390                 395
```

<210> 32830
<211> 207
<212> PRT
<213> A.fumigatus

<400> 32830

```
Asp Tyr Ser Ser Asn Ile Ser Cys Glu Val Ala Val Ile Val Val Ile
1               5                   10                  15
Val Ile Ala Val Asp Arg Phe Gly Arg Ser Asn Arg Ser Tyr Gln Tyr
            20                  25                  30
Leu Phe Leu Phe His Thr Ala Pro Arg Ile Phe Val Ile Ala Val Gln
        35                  40                  45
Asp Val Glu Ala Arg His Pro Pro Pro Thr His Gly Cys Pro Arg Ser
    50                  55                  60
Leu Pro Phe Thr Val Glu Ala Ser Gly Tyr Glu Pro Val Pro Gly Glu
65                  70                  75                  80
Thr Ile Pro Arg Arg Leu Pro Gln Ala Lys Asp Asn Leu Ile Leu Arg
                85                  90                  95
Pro Ala Glu Asp Val Ala Thr Thr Tyr Asp Val Phe Arg Arg Ser Ala
            100                 105                 110
Arg Val Phe Gly Asn Ala Lys Ala Val Gly Thr Cys Arg Leu Ile Lys
        115                 120                 125
Thr His Val Glu Asn Lys Lys Val Lys Lys Ile Val Asp Gly Val Glu
    130                 135                 140
Gln Glu Val Glu Lys Lys Trp Thr Tyr Phe Glu Met Ser Gly Tyr Thr
145                 150                 155                 160
Tyr Lys Ser Phe Val Glu Tyr Glu Arg Leu Ala Leu Glu Leu Gly Cys
                165                 170                 175
Gly Leu Arg Lys Leu Gly Leu Glu Lys Asp Asn Lys Ile His Leu Tyr
            180                 185                 190
Gly Ala Thr Arg Trp Ala Leu Pro Ala Val Phe Ile Thr Glu Glu
        195                 200                 205
```

<210> 32831
<211> 187
<212> PRT
<213> A.fumigatus

<400> 32831

```
Ile Gln Thr Gly Ala Ala Ser Gln Ser Met Thr Ile Val Thr Ala Tyr
1               5                   10                  15
Asp Thr Leu Gly Glu Glu Gly Leu Lys His Ser Leu Val Gln Thr Ser
```

```
            20                  25                  30
Ser Leu Ala Ile Phe Leu Asp Pro Gly Leu Ile His Ser Leu Ala Asn
        35                  40                  45
Val Leu Ser Asp Val Lys Ser Ile Lys His Val Ile Tyr Asn Thr Asp
    50                  55                  60
Gln Glu Val Lys Gln Glu Asp Leu Asp Lys Leu Lys Ala Asp Phe Asp
65                  70                  75                  80
Tyr Leu Asn Ile Met Ser Ile Glu Asp Leu Arg Lys Leu Gly Glu Glu
                85                  90                  95
Asn Pro Val Glu Pro Val Pro Pro Ser Pro Glu Asp Leu Cys Cys Ile
            100                 105                 110
Met Tyr Thr Ser Gly Ser Thr Gly Pro Pro Lys Gly Val Pro Leu Met
        115                 120                 125
His Lys Asn Val Ile Ala Ala Ser Lys Leu Ala Asp Leu Met Ile Tyr
    130                 135                 140
Cys Gly Ser Ala Lys Leu Thr Cys Leu Ser Tyr Ser Cys Trp Tyr Gln
145                 150                 155                 160
Cys Asp Cys Trp Pro Leu His Trp Thr Leu Arg Cys Ser Ala Tyr Leu
                165                 170                 175
Pro Ser Ser Ser Ala His Pro Gly Val His Val
            180                 185

<210> 32832
<211> 282
<212> PRT
<213> A.fumigatus

<400> 32832
Leu Ala Val Leu Ser Glu Cys Arg Tyr Cys Asp Trp His Asp Val His
1               5                   10                  15
Asp Phe Ala Ala Val Asp Arg Arg Asp Val Ser Ala Gly Thr Ser Arg
            20                  25                  30
Val Leu Pro Leu Leu Leu Gln Tyr Glu Tyr Cys Leu Trp Thr Val Arg
        35                  40                  45
His Val Ser Ala Phe Cys Arg Pro Val Tyr Thr Arg Ala Asn Ser Arg
    50                  55                  60
Thr Val Pro Pro Trp Leu Glu Glu Ala Ala Thr Trp Met Ala Asn Gly
65                  70                  75                  80
Glu Ser Leu His Asp Thr Arg Lys Val Thr Val His Ile Val Thr Ala
                85                  90                  95
Thr Thr Gly Asn Gly Gly Ser Pro Leu Leu Gly Cys Ile Ser Phe Gln
            100                 105                 110
Val Lys Pro His Pro Thr Pro Thr Val Arg Asn Thr Ala His Ile Thr
        115                 120                 125
Ala Ile Leu Thr Phe Gly Trp Leu Phe Phe Pro Glu Ser Pro Tyr Trp
    130                 135                 140
Leu Val Arg Gln Gly Lys Thr Thr Gln Ala Gln Asn Ala Leu Arg Arg
145                 150                 155                 160
Val Tyr Gly Phe Lys Asn Asp Ala Phe Tyr Asn Val Glu Val Arg Arg
                165                 170                 175
Met Ala Thr Glu Asn Asn Gln Ala Leu Ala Leu Gln Arg Ser Leu Thr
            180                 185                 190
Gln Ser Thr Arg Arg Thr Phe Leu Gly Leu Asp Leu Ser Ala Glu Ala
        195                 200                 205
Glu Cys Phe Asn Arg Met Asn Arg Lys Arg Thr Leu Thr Ala Ile Phe
    210                 215                 220
```

```
Ala Ala Ser Gly Gln Gln Met Ile Gly Ala Thr Phe Val Ile Gly Tyr
225                 230                 235                 240
Ala Thr Tyr Phe Leu Asp Leu Ile Gly Val Lys Asp Tyr Phe Asp Ala
                245                 250                 255
Ser Ile Val Leu Tyr Val Val Met Leu Leu Ala Ser Met Ala Ala Phe
            260                 265                 270
Pro Leu Thr Glu Ile Met Gly Arg Arg Thr
        275                 280
```

<210> 32833
<211> 127
<212> PRT
<213> A.fumigatus

<400> 32833

```
Arg Glu Gly Leu Leu Ile Gly Leu Trp Val Ser Ser Gly Val Ile Met
1               5                   10                  15
Gln Gly Phe Asp Ile Val Ala Gly Gly Gln Leu Ala Ala Leu Pro Glu
            20                  25                  30
Phe Gln Lys Gln Phe Gly Arg Leu Gln Pro Asp Gly Ser His Ile Ile
        35                  40                  45
Pro Ala His Tyr Leu Ser Ala Trp Asn Ser Ile Ala Pro Ala Cys Glu
    50                  55                  60
Ile Ala Ser Thr Phe Ile Tyr Ala Pro Leu Leu Glu Lys Tyr Gly Arg
65                  70                  75                  80
Lys Pro Gly Ile Leu Val Ala Ser Ala Ile Ser Val Ala Gly Val Leu
                85                  90                  95
Leu Gln Gln Leu Ala Thr Asp Trp Arg Val His Leu Ala Gly Arg Gly
            100                 105                 110
Val Asn Gly Trp Phe Val Ser Val Phe Leu Thr Cys Ser Thr Glu
        115                 120                 125
```

<210> 32834
<211> 86
<212> PRT
<213> A.fumigatus

<400> 32834

```
Cys Arg Met Tyr Ile Phe Ala Arg Thr Phe Leu Phe Leu Ser Arg Ala
1               5                   10                  15
Cys Leu Arg Leu Val Val Gln His Pro Leu Asn Ala Glu Ala Ser Ala
            20                  25                  30
Leu Tyr Leu Ile Ala Lys Gly Lys Trp Thr Arg Asn Glu Thr Thr Leu
        35                  40                  45
Arg Val Ala Leu Pro Cys Ser Thr Phe Ser Ala Leu Ser Gly Ala Ser
    50                  55                  60
Asn Ala His Gln Pro Trp Ser Pro Ser Leu Pro Ser Ser Val Pro Arg
65                  70                  75                  80
Ala Pro Ala Asn Pro Arg
                85
```

<210> 32835
<211> 109
<212> PRT
<213> A.fumigatus

<400> 32835
Leu Ala Val Asp Leu Ala Thr Arg Phe Asn Gly Glu Ile Ile Asn Gly
1 5 10 15
Asp Ala Met Gln Met Tyr Arg Gly Leu Pro Ile Ile Thr Asn Gln Ile
20 25 30
Pro Phe Glu Glu Arg Asn Gly Ile Pro His His Leu Ile Ser Cys Val
35 40 45
Asp Phe Glu Glu Gln Pro Trp Arg Ile Arg His Phe Lys Met Gly Met
50 55 60
Pro Ala Thr Tyr Lys Arg Asp Ile His Ser Arg Arg Glu Ser Leu Pro
65 70 75 80
Phe Gln Phe Gly Gly Thr His Tyr Val His Thr Arg Arg Val Leu Phe
85 90 95
Lys Gly Leu Thr Gly Leu Lys Glu Ser Pro Phe Leu Gly
100 105

<210> 32836
<211> 71
<212> PRT
<213> A.fumigatus

<400> 32836
Asn Asn Thr Ala Leu Thr Val Ala Val Val Pro Pro Arg Pro Asp Met
1 5 10 15
Ala Asp Ser Asp Asn His Thr Gly Pro Ser Ile Asn Val Asn Gly Leu
20 25 30
Asn Tyr Lys Phe Pro Asp Gly Ser Ser Gly Leu Thr Asn Val Ser Leu
35 40 45
Ser Leu Pro Ala Gly Ser Arg Thr Leu Leu Ile Gly Gly Asp Phe Val
50 55 60
Pro Ser Ser Leu Asp Glu Ser
65 70

<210> 32837
<211> 211
<212> PRT
<213> A.fumigatus

<400> 32837
Pro Ile Val Asn Ala Ile Pro Ala Asn Gly Ala Gly Lys Thr Thr Leu
1 5 10 15
Leu Arg Leu Leu Ala Gly Lys Arg Leu Ala Pro Thr Asp Thr Val Ser
20 25 30
Val Ser Gly Arg Asp Pro Phe Lys His Gly Leu Glu Gly Val Thr Tyr
35 40 45
Leu Gly Val Glu Trp Val Leu Asn Ser Ile Val Arg Thr Asp Ile Asp
50 55 60
Val Pro Thr Leu Leu Ala Ser Val Gly Gly Asp Ala Tyr Pro Glu Arg
65 70 75 80
Arg Asp Glu Leu Val Glu Ile Leu Asp Ile Asp Leu Arg Trp Arg Met
85 90 95
His Ala Val Ser Asp Gly Glu Arg Arg Arg Val Gln Leu Ala Met Gly
100 105 110
Leu Leu Arg Pro Trp Gln Val Leu Leu Leu Asp Glu Ile Thr Val Asp
115 120 125
Leu Asp Leu Leu Ser Arg Ser Asn Phe Leu Ser Phe Leu Lys Arg Glu

```
    130                 135                 140
Thr Glu Thr Arg Pro Cys Thr Ile Val Tyr Ala Thr His Ile Leu Asp
145                 150                 155                 160
Asn Leu Ser Gln Trp Pro Thr His Leu Val His Met His Leu Gly Asn
                165                 170                 175
Val Ser Gln Trp Gly Pro Met Glu Asn Phe Lys Ser Glu Val Thr Glu
            180                 185                 190
Thr Ser Glu Asn Ser Gln Leu Gly Glu Leu Val Leu Lys Trp Leu Lys
        195                 200                 205
Asp Leu His
    210
```

<210> 32838
<211> 293
<212> PRT
<213> A.fumigatus

<400> 32838

```
Leu Met Ser Leu Leu Ile Tyr Ile Tyr Arg Lys Val Leu Ala Val Leu
1               5                   10                  15
Ile Arg Ala Val Val Thr Arg Gly Lys Arg Ile Ser Ala Asn Pro Asp
            20                  25                  30
Asp Val Leu Gln Ile Thr Ser Arg Asp Ala Gly Arg His Leu Arg Ala
        35                  40                  45
His Leu Tyr Arg Pro Ala Thr Ser Leu Ser Pro Ser Pro Val Leu Ile
    50                  55                  60
Asn Phe His Gly Ser Gly Phe Leu Leu Pro Leu His Gly Ser Asp Asp
65                  70                  75                  80
Glu Phe Cys Arg Arg Val Ser Arg Glu Thr Glu Tyr Thr Val Leu Asp
                85                  90                  95
Val Gln Tyr Arg Leu Ala Pro Glu Tyr Pro Phe Pro Ala Ala Leu Asn
            100                 105                 110
Asp Val Glu Asp Ala Val Lys Trp Val Leu Gln Gln Pro Asp Lys Phe
        115                 120                 125
Asp Leu Thr Arg Val Ala Ile Ser Gly Phe Ser Ala Gly Gly Asn Leu
    130                 135                 140
Ala Ile Val Ala Ala Ser Val Leu Tyr Pro Arg Glu Thr Phe Arg Ser
145                 150                 155                 160
Val Leu Ala Phe Tyr Pro Pro Leu Asp Leu Tyr Thr Asp Pro Gly Ala
                165                 170                 175
Lys Arg Pro Pro Asp Pro Ala Gly Asn Pro Ile Pro Ala Pro Leu Cys
            180                 185                 190
Arg Leu Phe Asp Lys Ser Tyr Val Pro Ser Ala Tyr Asp Ala Arg Asp
        195                 200                 205
Pro Arg Ile Ser Pro Cys Tyr Ala Gln Pro Glu Arg Phe Pro Asp Arg
    210                 215                 220
Val Leu Val Val Thr Ala Ala Gly Asp Ser Leu Ala Gly Glu Ala Glu
225                 230                 235                 240
Ala Leu Ala Ala Lys Ile Ala Lys Leu Pro Gly Arg Gln Val Val Cys
                245                 250                 255
Gln Arg Met Gln Gly Cys Asn His Ala Trp Asp Lys Ser Ala Arg Pro
            260                 265                 270
Gly Thr Ile Gln Gly Asp Ala Lys Glu Lys Ala Tyr Ala Met Ala Val
        275                 280                 285
Ala Met Leu Met Arg
    290
```

<210> 32839
<211> 76
<212> PRT
<213> A.fumigatus

<400> 32839
Tyr Tyr Ser Val Gly His Lys Pro Arg Leu Ala Leu Pro Ala Pro Met
1 5 10 15
Thr Phe Glu Ala Arg Pro Lys Pro Leu Pro Gln Arg Thr Leu Ile Ala
20 25 30
Gln Glu Trp Gln His Cys Arg His Leu Phe Cys Ser Ile Ala Ile Tyr
35 40 45
Leu Arg Tyr Ser Val Val Phe Gln Gly Ile Leu Asp Ile Gln His Tyr
50 55 60
Leu Ile Ala Phe Asn His Ser Leu Glu Lys Asn Arg
65 70 75

<210> 32840
<211> 329
<212> PRT
<213> A.fumigatus

<400> 32840
Leu Tyr Asp Glu Gly Ile Ile Ile Thr Val Ala Ala Leu Val Ala Ala
1 5 10 15
Gly Ile Ala Val Tyr Glu Ser Pro Gln Phe Gln Glu Trp Val Asn Asn
20 25 30
Ser Arg Arg Lys Ile Ala Leu Ala Leu His Asn Leu Gly Asp Glu Ile
35 40 45
Gln Pro Arg Asp Ser Thr Ser Ser Pro Arg Glu Asp Ile Ser Met Met
50 55 60
Glu Glu Val Gly Pro Ala Ala Glu Glu Arg Arg Arg Ile Ala Arg Glu
65 70 75 80
Glu Ile Gln Lys Arg Ala Ala Ala Leu Glu Glu Arg Arg Lys Arg Gly
85 90 95
Gln Gly Gly Ser Phe Gly Thr Phe Asp Ala Leu Val Asp Glu Asn Gly
100 105 110
Asn Leu Leu Arg Pro Asp Ser Arg Glu Pro Thr Asp Arg Thr Leu Ala
115 120 125
Asn Ser Thr Ala Val Asp Leu Pro Ser Ser Gln Leu Val His Arg Gly
130 135 140
Pro Lys Glu Pro Asp Val Ser Ala Ser Val Ser Glu Ile Arg Pro Ala
145 150 155 160
Gly Ile Val Thr Asp Ser Asp Lys Leu His Leu Glu Ile Pro Ser Thr
165 170 175
Gly Asn His Ser Ala Ser Leu Val Asp Leu Thr Pro Thr Ser Asp Asp
180 185 190
Thr Asp Ile Asp Phe Phe Ala Ser Thr Gly Asp Lys Ser Glu Glu Ala
195 200 205
Glu Arg Ser Val His Ser Ser Ala Thr Asp Gln Glu Gln Met Ser Ala
210 215 220
Ser Ser His Thr Glu Glu Gly Ser Gln Thr Ile Phe Glu His Pro Glu
225 230 235 240
Ser Ser Leu Ile Asp Ser Asn Arg Glu Leu Arg Ser Pro Phe Ser Asp
245 250 255

```
Leu Ser Glu Leu Asn Ser Thr Gly Phe Glu Gln Gln Glu Arg Ser Ser
            260                 265                 270
Thr Pro Ser Thr Ala Asp Ser Phe Ser His Val Tyr Glu Ser Ala Glu
        275                 280                 285
Asp Ala Thr Ser Asp Gly Thr Leu Ser Asp Leu Gly Arg Ser Met Asp
    290                 295                 300
Gly Ala Ala Thr Pro Ala Ser Trp Ser Glu Val Gly Ser Val Val Ser
305                 310                 315                 320
Asn Glu Asp Leu Gly His His Arg Phe
                325
```

<210> 32841
<211> 223
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (98),(179),(193)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32841

```
Pro Thr Ala Ser Thr Gln Lys Asn Pro Asp Asp Val Val Ile Thr Leu
1               5                   10                  15
Ala Leu Arg Thr Pro Leu Thr Lys Ala Ala Lys Gly Gly Phe Lys Asp
            20                  25                  30
Thr Asp Leu Asp Tyr Met Ile Tyr Ala Leu Leu Lys Glu Val Val Gln
        35                  40                  45
Lys Ser Lys Leu Asp Pro Ala Leu Ile Glu Asp Val Cys Leu Gly Asn
    50                  55                  60
Val Cys Phe Leu Leu Leu Phe Gln Phe Tyr Ala Gly Lys Lys Asn Pro
65                  70                  75                  80
Ile Asn Arg Tyr Gln Val Asn Asp Gly Lys Ala Ala Tyr Leu Val Arg
                85                  90                  95
Ala Xaa Ala Leu Ala Ala Gly Ile Pro His Thr Ala Gly Ala Ser Ser
            100                 105                 110
Val Asn Arg Phe Cys Ser Ser Gly Leu Lys Ala Val Gln Asp Ile Ala
        115                 120                 125
Asn Gln Ile Gln Leu Gly Ala Ile Asp Val Gly Ile Ala Val Gly Ala
    130                 135                 140
Glu Leu Met Ser Ala Gly Gly Asp Arg Leu Pro Arg Pro Phe Asn Glu
145                 150                 155                 160
Glu Val Leu Lys Asn Gln Glu Ala Ala Asp Cys Met Gln Pro Met Gly
                165                 170                 175
Gln Thr Xaa Glu Asn Val Gly Ala Asp Phe Asn Ile Thr Arg Glu Met
            180                 185                 190
Xaa Asp Thr Tyr Pro Ala Glu Ser Phe Pro Ala Gly Gln Ala Gly Gln
        195                 200                 205
Lys Ala Gly Cys Phe Asp Asn Lys Thr Ser Pro Ser Arg Leu Arg
    210                 215                 220
```

<210> 32842
<211> 498
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (285),(451),(455)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32842

```
Arg Gln Phe Ala Cys Gln Glu Ser Gln Leu Ser Asp Glu Ala Lys Lys
1               5                  10                  15
Leu Met Glu Ser Val Arg Glu Asp Val Ala Lys Ile Lys Ala Gln Met
            20                  25                  30
Val Leu Glu Lys Asp Lys Gln Asp Ala Ala Asp Arg Gly Ala Glu Gly
        35                  40                  45
Leu Lys Gly Lys Asp Arg Arg Ile Ala Gln Pro Lys Gly Lys Ser Gly
    50                  55                  60
Arg Phe Ser Ser Ala His Met Ala Glu Phe Lys Lys Met Asp Ser Ile
65                  70                  75                  80
Ala Asn His Pro Ser Ala Phe Arg Ala Ala Pro Gly Arg Phe Gln Pro
                85                  90                  95
Val Gly Ala Thr Leu Lys Arg Thr Asn Ser Lys Ala Gly Phe Asn Glu
            100                 105                 110
Ala Asp Ser Arg Arg Gln Ser Pro Leu Lys Ser Thr Ala Lys Pro Ser
        115                 120                 125
Pro Ala Ser Val Ala Pro Ser Ala Lys Arg Val Lys Gln Asp Lys Thr
    130                 135                 140
Asp Asp Val Ser Thr Arg His Pro Thr Thr Asp Ala Asp Lys Lys Thr
145                 150                 155                 160
Pro Lys Thr Thr Leu Pro Arg Pro Arg Ser Ala Val Arg Ser Ser Leu
                165                 170                 175
Met Thr Pro Thr Arg Ala Ser Ala Ala Arg Thr Ser Ser Val Ser Leu
            180                 185                 190
Lys Pro Pro Arg Thr Ser Met Ile Pro Ser Leu Pro Arg Ser Pro Val
        195                 200                 205
Ser Lys Pro Ala Gly Ile Pro His Thr Pro Gln Thr Asp Phe Asn Pro
    210                 215                 220
Arg Ile Lys Ser Asn Leu Pro Thr Leu Gly Gly Leu Lys Ser Ile Phe
225                 230                 235                 240
Arg Arg His Gln Pro Leu Phe Ser His Asp Pro Thr Lys Ile Ala Ala
                245                 250                 255
Gly Thr His Val Ala Ala Pro Asp Phe Thr Ser Lys Phe Leu Leu Gly
            260                 265                 270
Ala Ser Arg Glu Pro Ser Val Tyr Glu Glu Pro Val Xaa Ile Leu Ser
        275                 280                 285
Pro Lys Lys Arg Val Glu Phe Thr Pro Thr Thr Lys Ser Pro Val Ala
    290                 295                 300
Lys Val Asp Ser Glu Leu Asp Gln Pro Ser Pro Ser Pro Ser Lys Ile
305                 310                 315                 320
Thr Val Ser Val Ser Lys Ala Thr Ser Asp Ile Val Tyr Pro Thr Leu
                325                 330                 335
Pro Val Leu Thr Pro Glu Lys Thr Ser Ala Ala Ala Ile Arg Ser Ser
            340                 345                 350
Gln Asp Gly Thr Pro Thr Ile Arg His Val Arg Pro Ser Asn Val Asn
        355                 360                 365
Thr Gln Ser Ile Ala Leu Pro Asp Val Ala Gly Met Pro His Gly Met
    370                 375                 380
Gly Asn Lys Lys Pro Thr Thr Leu Pro Asp Ile Ala Gly Val Pro His
385                 390                 395                 400
```

```
Gly Ile Gly Asn Lys Lys Arg His Arg Ala Thr Glu Asp Glu Ala Asp
                405                 410                 415
Thr Glu Asn Val Pro Pro Ala Asp Ser Thr Ser Asp Pro Arg Ser Ala
            420                 425                 430
Lys Arg Leu Lys Phe Ser Ala Pro Ser Arg Ala Lys Ala Leu Leu Ser
        435                 440                 445
Phe Ser Xaa Thr Lys Ala Xaa Thr His Thr Pro Val Arg Asn Ser Ser
    450                 455                 460
Ile Ser Ser Arg Thr Gly Thr Pro Ala Ser Ala Arg Ala Lys Ser Arg
465                 470                 475                 480
Gly Val Leu Ser Ile Ser Arg Leu Asn Met Leu Ala Gln Pro Lys His
                485                 490                 495
Arg Arg
```

<210> 32843
<211> 237
<212> PRT
<213> A.fumigatus

```
<400> 32843
Asp Gln Pro Phe Met Val Ala Arg Lys Glu Ser Arg Leu Tyr Ser Ser
1               5                   10                  15
Trp Tyr Cys Arg Ser Ser Gln Ser Ser Pro Arg Ser Ser Ser Gln Pro
            20                  25                  30
Phe Leu Pro Phe Ser Leu Thr Leu Pro Ser Met Ser Thr Met Ser Thr
        35                  40                  45
Ser Leu Pro Ala Ala Ser Leu Gly Phe Ser Ala Val Ser Ala Val Ser
    50                  55                  60
Pro Arg Leu Lys Arg Ser Arg Ser Trp Ser Val Ser Ile Val Pro Arg
65                  70                  75                  80
Pro Ala Phe Cys Trp Leu Thr Thr Val Glu Ala Thr Ser Ile Leu Asn
                85                  90                  95
Arg Cys Arg Leu Glu Glu Met Val Ser Tyr Glu Phe Leu Leu Arg Gln
            100                 105                 110
Ser Asp Gly Asp Leu Asp Leu Leu Gln Asp Leu Leu Leu Gln Gly Ala
        115                 120                 125
Ala Ser Asp Gln Pro Val Asp Val Asp Asp Leu Leu Leu Ala Asp Thr
    130                 135                 140
Met Gly Ala Ile His Gly Leu Asp Val Leu Leu Trp Val Pro Val Val
145                 150                 155                 160
Leu His Glu Tyr Asp Cys Ile Gly Ala Gly Gln Ile Gln Thr Glu Thr
                165                 170                 175
Thr Asp Ala Gly Arg Gln Lys Gln His Ile Val Ala Gly Ile Arg Val
            180                 185                 190
Lys Pro Val Asp Asn Val Leu Thr Pro Gly Ser Phe His Ala Ala Val
        195                 200                 205
Glu Pro Glu Glu Leu Asn Gly Arg Lys Gln Leu Val Lys His Phe Ala
    210                 215                 220
Leu His Asp Ile Gln His Leu Leu His Leu Thr Glu Asp
225                 230                 235
```

<210> 32844
<211> 201
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (32),(75)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32844
Ser Arg Lys Phe Leu Gln Pro Ser Arg His Gly Leu Phe Gly Thr Pro
1 5 10 15
Arg Gly Cys Arg Gln Glu Gly Pro Lys Gln Ser Thr Arg Phe Ser Xaa
20 25 30
Thr Cys Cys Gln Ala Phe Asn Ile Arg Asp Val Ala His Ala Pro Lys
35 40 45
Leu Ser Ala Leu Arg Asp Leu Leu Ile Asp Cys Gly Ile Gly Val Asp
50 55 60
Ser Pro Ser Glu Gly Asp Leu Ser Gly Ala Xaa Tyr Val Ser Pro His
65 70 75 80
Arg Ala Leu Ile Phe Cys Gln Met Lys Glu Met Leu Asp Ile Val Gln
85 90 95
Ser Glu Val Phe Asn Lys Leu Leu Pro Ser Val Gln Phe Leu Arg Leu
100 105 110
Asp Gly Ser Val Glu Ala Thr Arg Arg Gln Asp Ile Val Asn Arg Phe
115 120 125
Asn Thr Asp Pro Ser Tyr Asp Val Leu Leu Leu Thr Thr Ser Val Gly
130 135 140
Gly Leu Gly Leu Asn Leu Thr Gly Ala Asp Thr Val Ile Phe Val Glu
145 150 155 160
His Asp Trp Asn Pro Gln Lys Asp Ile Gln Ala Met Asp Arg Ala His
165 170 175
Arg Ile Gly Gln Lys Lys Val Val Asn Val Tyr Arg Leu Ile Thr Arg
180 185 190
Gly Thr Leu Glu Glu Lys Ile Leu Lys
195 200

<210> 32845
<211> 103
<212> PRT
<213> A.fumigatus

<400> 32845
Leu Thr Ile Ser Ser Ser Leu Gln Arg Phe Lys Ile Asp Val Ala Ser
1 5 10 15
Thr Val Val Asn Gln Gln Asn Ala Gly Leu Gly Thr Met Asp Thr Asp
20 25 30
Gln Leu Leu Asp Leu Phe Asn Leu Gly Glu Thr Ala Glu Thr Ala Glu
35 40 45
Lys Pro Ser Asp Ala Ala Gly Asn Glu Val Asp Met Val Asp Ile Asp
50 55 60
Gly Asn Val Lys Glu Lys Gly Lys Lys Gly Trp Leu Asp Asp Leu Gly
65 70 75 80
Glu Leu Trp Asp Asp Arg Gln Tyr Gln Glu Glu Tyr Asn Leu Asp Ser
85 90 95
Phe Leu Ala Thr Met Lys Gly
100

<210> 32846

<211> 84
<212> PRT
<213> A.fumigatus

<400> 32846
Asp Cys Ala Pro Asp Ala Cys Phe Asp Pro Ile Ser Leu His Ser Pro
1 5 10 15
Pro Ser Phe Gln Cys Gln Thr Tyr Leu Cys Tyr Met Ile His Leu Glu
20 25 30
Arg Arg Leu Thr Leu Asn Ile Lys Val Ser Val Pro Phe Tyr Leu Val
35 40 45
Glu Phe Thr Asp Asp Asp Leu Ser Pro Val Thr Leu Ser Lys Tyr Gly
50 55 60
Leu Leu Lys Val Ala Arg Asn Asp Asp Pro Pro Pro Asp Ser Leu Arg
65 70 75 80
Val Ala Ser Arg

<210> 32847
<211> 61
<212> PRT
<213> A.fumigatus

<400> 32847
Thr Thr Ser Ser Thr Thr Asp Ile Lys Ala Leu Thr Ser Asp Gly Ser
1 5 10 15
Asp Ile Ile Pro Ser Leu Ala Pro Ala Phe Glu Arg Tyr Asn Glu Lys
20 25 30
Gln Leu Thr Thr Val Lys Leu Pro Gly Ala Ser Gln Glu Val Gly Arg
35 40 45
Arg Cys Val Gln Pro Ser Arg Gly Arg Ile Leu Thr Arg
50 55 60

<210> 32848
<211> 121
<212> PRT
<213> A.fumigatus

<400> 32848
Arg Gly Thr Arg Cys Arg Asn Gly Arg Phe Arg Ser Ile Tyr Arg Val
1 5 10 15
Pro Val Ser Glu Ser Thr Thr Val Ser Gly Lys Ile Leu Val Asp Val
20 25 30
His Tyr Tyr Glu Asp Gly Asn Val Ala Leu Asn Thr Asn Lys Pro Ile
35 40 45
Asn Ile Ala Ile Pro Ser Ile Ser Ala Glu Ser Ile Ile Ser Arg Ile
50 55 60
Ala Ala Ala Glu Arg Asp Tyr Gln Glu Glu Leu Asn Arg Ala Phe Val
65 70 75 80
Gln Met Ala Glu Gly Ala Phe Lys Asn Leu Arg Arg Gln Leu Pro Ile
85 90 95
Thr Arg Gln Lys Val Glu Trp Glu Lys Val Gly Gly Tyr Arg Leu Gly
100 105 110
Gln Asp Ile Ser Gly Gly Lys Gly Arg
115 120

<210> 32849
<211> 473
<212> PRT
<213> A.fumigatus

<400> 32849

```
Gln Cys Thr Thr Asp Gln Ile Ile Ser Asn Leu Ala Leu Asp Ile Pro
1               5                  10                  15
Pro Asn Gly Tyr Thr Pro Arg Asn Val Asp Leu Val Ser Cys Leu Leu
            20                  25                  30
Thr Ser Arg Thr Leu His Ala Ala Thr Leu Gly Val Leu Tyr Arg Asn
        35                  40                  45
Met Thr Phe Pro His Ser Ile Ile Phe Ser Lys Ala Leu Asn His Met
    50                  55                  60
Ser Gln Tyr Pro Ala Leu Gly Thr Leu Val Arg Arg Leu Asp Phe Ser
65                  70                  75                  80
His Phe Thr Ser Val Gly Leu Gly Arg Thr Lys Gln Met Asn Ala Glu
                85                  90                  95
Ile Gln Asn Leu Thr Ser Thr Thr Leu Leu Lys Cys Leu Asp Leu Leu
            100                 105                 110
Pro Asn Leu Lys Glu Cys Leu Leu Gln Glu His Val Glu Gly Asp Ile
        115                 120                 125
Ser Val Asp Ile Val Arg Lys Ile Phe Thr Gly Leu Pro Asn Leu His
    130                 135                 140
Gly Val Asp Phe Cys Gly Cys Ala Thr Gln Ser Phe Ser Ala Val Phe
145                 150                 155                 160
His Gln Ala Leu Thr Thr Glu Pro Gly Leu Pro Leu Thr Leu Pro Asn
                165                 170                 175
Leu Lys Arg Val Ser Leu His Glu Cys Ser Ser Leu Pro Pro Ser Thr
            180                 185                 190
Phe Glu Val Leu Leu Pro Arg Leu Ile Asn Leu Thr His Leu Asp Val
        195                 200                 205
Thr His Thr Gln Ile Ser Glu Ala Ala Leu Phe Ser Ile Pro Glu Thr
    210                 215                 220
Ala Gln Ile Thr His Leu Ser Leu Ser Arg Cys Thr Arg Leu Lys Gly
225                 230                 235                 240
Pro Arg Val Val Glu Phe Leu Thr Thr His Pro Ala Val Cys Asn Thr
                245                 250                 255
Leu Val Tyr Leu Asn Leu Leu Ala Asp Pro Thr Arg Tyr Arg Ile Leu
            260                 265                 270
Glu Glu Asp Asp Val Ser Ala Leu Leu Pro Arg Leu Pro Lys Thr Leu
        275                 280                 285
Arg Ser Leu Asn Leu Gly Gly Ala Lys Ile Thr Ser Ala His Ala Pro
    290                 295                 300
Ala Leu Val Pro Leu Thr Lys His Leu Glu Glu Leu Gly Leu Ser Ser
305                 310                 315                 320
Ala Asp Leu Ser Cys Lys Asp Leu Asn Met Phe Phe Ala Pro Pro Leu
                325                 330                 335
Val Ser Asp His Thr Gly Ser Ala Glu Gly Pro Glu Pro Trp Val Pro
            340                 345                 350
Ser Ser Leu Cys Tyr Leu Asp Leu Asn Lys Val Pro Gln Leu Ser Ile
        355                 360                 365
Gly Thr Ile Phe Asn Thr Asn Thr Cys Leu Leu Leu Ser Gln Gln Ser
    370                 375                 380
Tyr Pro Leu Gln Val Ile Glu Phe Ser Asp Lys Ile Ile Ala Pro Leu
385                 390                 395                 400
```

```
Arg Glu Arg Val Lys Asn Asn Arg Ala Ser Ser Gly Trp Thr Val Arg
                405                 410                 415
Glu Leu Gly Arg Arg Gly Trp Tyr Val Arg Asp Pro Ala Ser Met Pro
            420                 425                 430
Asn Gln Val Pro Asp Asp Gly Ser Arg Pro Trp Lys Met Gly Ala Arg
        435                 440                 445
Trp Trp Gly Met Arg Lys Ile Pro Val Ala Val Gly Asp Val Gly Gly
    450                 455                 460
Ile Tyr Gly His Tyr Met Phe Lys Lys
465                 470
```

<210> 32850
<211> 105
<212> PRT
<213> A.fumigatus

<400> 32850

```
Leu Trp Gln Gly Thr Arg Tyr Ile Asn Gln Leu Ser Arg Ala Leu Asn
1               5                   10                  15
Ile Pro Glu Ser Ala Met Lys Ala Ala Gly Gln Val Phe Lys Leu Ala
            20                  25                  30
Val Gly Leu Asn Phe Ile Gln Gly Arg Arg Thr Lys Thr Val Ala Ala
        35                  40                  45
Val Cys Leu Tyr Ile Ala Cys Arg Arg Gln Asp Gly Asn Thr Val Met
    50                  55                  60
Leu Ile Asp Phe Ala Asp Val Leu Met Val Ser Asn Leu Arg Gln Leu
65                  70                  75                  80
Asp Pro Gly Ser Val His Ser Leu Thr Leu Phe Arg Ser Met Tyr Leu
                85                  90                  95
Asn Ser Val Glu Pro Thr Arg Pro Ser
            100                 105
```

<210> 32851
<211> 328
<212> PRT
<213> A.fumigatus

<400> 32851

```
Arg Val Gln Ser Arg Pro Pro Ala Ile Ser Cys Ile Leu Leu Ile Leu
1               5                   10                  15
Ser Ser Ser Ser Ser Pro Ala Ile Glu Ala Ser Val Pro Ile Phe Ile
            20                  25                  30
Cys Tyr Arg Gly Leu Leu Leu Val Ala Leu Arg Trp Ser Gln Tyr Ile
        35                  40                  45
Pro Tyr Thr Ile Ile Ile Arg Ser Gly Arg Pro Arg Ser Ala His Ser
    50                  55                  60
Ser Pro Pro Gln Cys Leu Asp Ile Phe Pro Ser Pro Ser Pro Leu Phe
65                  70                  75                  80
Phe Pro Phe Leu Glu Val Gln Thr Arg Ser Pro Phe Arg Asp Trp Ser
                85                  90                  95
Asn Gln His Arg His Ile Arg Gly Leu Asp His Asn Cys Cys Thr Leu
            100                 105                 110
Leu Gln Gly Leu Ile Tyr Thr Arg Ala Val Cys Phe Phe Val Asn Pro
        115                 120                 125
Cys Pro Leu Cys Ser Ala Pro Ser Leu Ser Glu Val Gln Pro Pro Val
    130                 135                 140
```

```
Glu Gly Tyr Leu Ala Glu Phe Gln Leu Ser Leu Ser Ser Asp Ile Thr
145                 150                 155                 160
Thr Leu Cys Met Met Ser Ala Phe Arg Pro Asn Met Arg Pro Ser Met
                165                 170                 175
Pro Pro Arg Ser Gly Pro Arg Ala Pro Pro Val Gly Arg Leu Ala Ser
            180                 185                 190
Leu Lys Ala Pro Thr Pro Thr Pro Ile Lys Arg Pro Gln Pro Val Ala
        195                 200                 205
Arg Pro Gln Ala Ala Arg Pro Thr Thr His Pro Lys Thr Thr Thr Cys
    210                 215                 220
Pro Asn Pro Gly Cys Pro Ala Pro His Ile Val Glu Asp Asp Gly Gln
225                 230                 235                 240
Lys Val Cys Ser Gly Cys Gly Thr Val Ile Ser Glu Ala Asn Ile Val
                245                 250                 255
Ser Glu Val Thr Phe Gly Glu Thr Ser Ser Gly Ala Ala Val Val Gln
            260                 265                 270
Gly Thr Phe Val Gly Glu Asp Gln Thr His Val Arg Ser Tyr Gly Pro
        275                 280                 285
Gly Phe Gln Arg Gly Gly Ala Met Glu Ser Arg Glu Ile Thr Glu Gln
    290                 295                 300
Asn Gly Arg Tyr Pro Phe Ser Pro Leu Ser Val Leu Leu Ala Arg Ala
305                 310                 315                 320
Asp Phe Gly Lys Glu Leu Val Ile
                325
```

<210> 32852
<211> 127
<212> PRT
<213> A.fumigatus

<400> 32852

```
Phe Thr Ala Ile Arg Pro Trp Val Arg Thr Leu Ala Asn Ser Val Gln
1               5                   10                  15
Val Asn Val Phe Lys Leu Gly Arg Thr Tyr Lys Ala Leu Leu Asp Glu
            20                  25                  30
Leu Arg Leu Gly Gly Asn Val Phe Leu Met Asn Pro Ile Asp Pro Glu
        35                  40                  45
Ser Leu Ile Tyr Arg Phe Ala Lys Gln Leu Glu Phe Gly Thr Ala Thr
    50                  55                  60
Met Gln Val Ala Ser Glu Ala Val Arg Ile Val Gln Arg Met Asn Arg
65                  70                  75                  80
Asp Trp Met Thr Thr Gly Arg Arg Pro Ala Gly Ile Cys Gly Ala Ala
                85                  90                  95
Leu Ile Leu Ala Ala Arg Met Asn Asn Phe Arg Gln Thr Val Arg Glu
            100                 105                 110
Val Val Tyr Gly Gly Glu Ser His Arg Asp His His Gln Pro Ala
        115                 120                 125
```

<210> 32853
<211> 94
<212> PRT
<213> A.fumigatus

<400> 32853

```
Pro Ser Gly Gly Ser Trp Val Pro Pro His Ile Arg Tyr Leu Ser Ala
1               5                   10                  15
```

```
Thr Ile Leu Met Gly Arg Leu His Gly Asp Asn Ile Tyr Ser Phe Ser
            20                  25                  30
Arg Thr Gly Tyr Thr Leu His Gly Phe Tyr Asp Gln Val Val Arg Tyr
        35                  40                  45
Gly Phe Thr Tyr Thr Pro Leu Asp Tyr Thr His Leu Gly Thr Ile Ile
    50                  55                  60
Ser Thr Phe Leu Gln Thr Ser Thr Gln Thr Thr Trp Ser Thr Leu Gln
65                  70                  75                  80
Pro Leu Lys Leu Leu Pro Tyr Gln Leu Leu Thr Leu Arg Pro
                85                  90
```

<210> 32854
<211> 162
<212> PRT
<213> A.fumigatus

<400> 32854

```
Lys Val Leu Leu Thr Gly Val Ser Gly Thr Gly Leu Ser Ala Ala Thr
1               5                   10                  15
Ala Glu Ala Leu Ala Ser Gly Asp Ala Ala Ala Ile Ile Leu Met Gly
            20                  25                  30
Lys Ser Gln Ala Glu Ala Gln Ala Met Ile Asp Asp Ile Asn His Lys
        35                  40                  45
His Pro Lys Ala Lys Leu Ile Phe Ile Ser Val Asp Phe Gly Arg Leu
    50                  55                  60
Ala Ser Val Arg Glu Ala Ala Glu Ala Ile Arg Lys Leu Glu Val Pro
65                  70                  75                  80
Ile Asp Gly Phe Val Gly Phe Pro Thr Val Val Ala Gly Pro Trp Met
                85                  90                  95
Lys Thr Glu Asp Gly Ile Glu Ser His Phe Gln Cys Asn Tyr Leu Ser
            100                 105                 110
Asn Phe Leu Leu Ile Asn Leu Val Val His Leu Met Pro Ala Gly Ser
        115                 120                 125
Arg Val Val Ile Val Cys Ser Ser Ile Arg Pro Glu Ala Pro Pro Pro
    130                 135                 140
Ala Trp Asp Asp Pro Asn Phe Ala Val Ser Gly Leu Leu Trp Phe Glu
145                 150                 155                 160
Leu Gly
```

<210> 32855
<211> 61
<212> PRT
<213> A.fumigatus

<400> 32855

```
Ala Lys Cys Tyr Pro Ala Leu Tyr Leu Val His Ile Lys Ser Ser Arg
1               5                   10                  15
Ala Leu Arg Val Leu Ser Ala Gly Lys Ser Val Leu Met Gln Ala Ala
            20                  25                  30
Met Gly Glu Pro Thr Leu Cys Met Ser Leu Arg Tyr Gln Lys Ile Ile
        35                  40                  45
Tyr Ser Leu Arg Gln Gly Lys Ile Trp Val Ser Pro Ala
    50                  55                  60
```

<210> 32856

<211> 63
<212> PRT
<213> A.fumigatus

<400> 32856
Asn Ile Leu His Ala Ser Ser Cys Asn Phe Leu Ser Pro Val Met Arg
1 5 10 15
Tyr Met Met Lys Thr Asp Ser Met Ala Ser Gly Leu Glu Gln Tyr Gln
20 25 30
Leu Tyr Tyr Thr Arg Cys Lys Thr Glu Ile Asn Ser Gln Gln Ile Thr
35 40 45
Tyr Arg Ser Lys Tyr Leu Gly Ser Val Ile Ser Val Arg Pro Gly
50 55 60

<210> 32857
<211> 90
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (12)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32857
Arg Pro His Ala Ile Phe His Ser Cys Val Ser Xaa Ser Ile Asp Ala
1 5 10 15
Leu His Ala Ile Asp Ser Ile Asp Phe Thr Thr Pro Asp Ala Thr Gln
20 25 30
Ile Asn Ile Phe Glu Thr Thr Ile Arg Tyr Val Gly Gly Leu Leu Gly
35 40 45
Ala Tyr Asp Leu Thr Asp Gly Lys His Pro Ile Leu Leu Lys Lys Ala
50 55 60
Val Glu Leu Ala Asp Met Ile Tyr Asp Ala Phe Asp Thr Thr Asn Met
65 70 75 80
Met Pro Gln Ser Arg Trp Gln Trp Ser Arg
85 90

<210> 32858
<211> 297
<212> PRT
<213> A.fumigatus

<400> 32858
Tyr Tyr Gln Tyr Asp Ala Ser Val Ser Leu Ala Met Glu Gln Val Ser
1 5 10 15
Arg Pro Leu Leu Leu Glu Pro Leu Lys Ala Ala Ala Asn Tyr Gly His
20 25 30
Arg Ser Ala Arg Gly Leu Ser Ile Gln Pro Ser Arg Gln Thr Ile Leu
35 40 45
Ala Glu Leu Gly Ser Leu Asn Leu Glu Phe Thr Thr Leu Ser Gln Leu
50 55 60
Thr His Asp Pro Lys Tyr Phe Asp Ala Val Gln Arg Ile Thr Asn Val
65 70 75 80
Leu Asp Asp Ala Gln Asn Lys Thr Lys Ile Pro Gly Leu Trp Pro Met
85 90 95

```
Met Val Asn Ala Glu Asp Leu Glu Phe Thr Asp Pro Arg Phe Thr Val
            100                 105                 110
Gly Gly Met Ala Asp Ser Thr Tyr Glu Tyr Leu Pro Lys Glu His Met
        115                 120                 125
Leu Leu Gly Ala Arg Thr Asp Gln Tyr Arg Lys Met Tyr Ala Ala Ala
    130                 135                 140
Met Glu Ala Ile Lys Lys Arg Leu Leu Phe Arg Pro Met Thr Lys Asn
145                 150                 155                 160
Gly Glu Asp Leu Leu Phe Ala Gly Asn Thr His Thr Gly Leu Ala Ser
                165                 170                 175
Asn Ala Pro Pro Glu Pro Gln Trp Glu His Leu Lys Cys Phe Phe Gly
            180                 185                 190
Gly Thr Val Gly Ile Gly Ala Lys Ile Phe Asn Arg Pro Glu Glu Leu
        195                 200                 205
Ser Ile Ala Arg Lys Leu Thr Asp Gly Cys Ile Trp Ala Tyr Asp Val
    210                 215                 220
Met Pro Thr Gly Ile Met Pro Glu Ser Met His Leu Ser Pro Cys Gln
225                 230                 235                 240
Ser Met Asp His Cys Glu Trp Asp Glu Gln Lys Trp Tyr Gln Asp Val
                245                 250                 255
Arg Arg Arg Leu Ala Lys Gly Ser Lys Glu Lys Asp Thr Val Gln Glu
            260                 265                 270
Ala Lys Thr Ile Ile Arg Asp Ser Gly Leu Gln Pro Gly Leu Thr Glu
        275                 280                 285
Ile Thr Asp Pro Arg Tyr Leu Leu Arg
    290                 295
```

<210> 32859
<211> 142
<212> PRT
<213> A.fumigatus

```
<400> 32859
Tyr Cys Ser Arg Pro Glu Ala Ile Glu Ser Val Phe Ile Met Tyr Arg
1               5                   10                  15
Ile Thr Gly Asp Lys Lys Leu Gln Asp Asp Ala Trp Arg Met Phe Gln
            20                  25                  30
Ser Ile Glu Lys Ala Thr Arg Thr Lys Tyr Ala His Ala Ala Ile Asp
        35                  40                  45
Asp Val Arg Asp Val Lys Ala Thr Gln Leu Asp Tyr Met Glu Ser Phe
    50                  55                  60
Trp Leu Ala Glu Thr Leu Lys Tyr Phe Tyr Leu Ile Phe Ser Glu Pro
65                  70                  75                  80
Gly Leu Val Ser Leu Asp Asp Tyr Val Leu Tyr Val Leu Leu Ser Tyr
                85                  90                  95
Glu Val Phe Ala Lys Ala Asn Asp Gln Ala Gly Thr Arg Lys His Ile
            100                 105                 110
His Ser Ser Val Pro Leu Leu Val His Arg Leu Leu Ser Gln Thr Leu
        115                 120                 125
Pro Leu His Leu Asn Met Ser Arg Leu Met Leu Ser His Gly
    130                 135                 140
```

<210> 32860
<211> 393
<212> PRT
<213> A.fumigatus

<400> 32860
Pro Leu Asn Val His Cys Ser Phe Gly Pro Ala Val Cys Glu Asn Arg
1 5 10 15
Ser Leu Ser Gly Ser Thr Pro Ser Ala Arg Glu Asn Ile Thr Ala Lys
20 25 30
Leu Ile Pro Tyr Gly Ala Arg Leu Ile Ser Leu Met Val Pro Asp Arg
35 40 45
Asp Gly Lys Glu Gln Asp Val Val Ile Gly Tyr Asp Asp Pro Asn Ala
50 55 60
Tyr Leu Asn Asp Thr Glu Thr Val His Thr Phe Phe Gly Ala Val Val
65 70 75 80
Gly Arg Tyr Ala Asn Arg Ile Lys Asn Gly Thr Phe Thr Ile Gly Ser
85 90 95
Asn Glu Tyr His Val Pro Lys Asn Glu Asn Asn Gly Ile Asp Thr Leu
100 105 110
His Gly Gly Lys Val Gly Tyr Asp Gln Arg Asn Trp Thr Val Thr Ala
115 120 125
His Ser Lys Ser Ser Val Thr Phe Thr Leu Tyr Asp Gln Gly Trp Glu
130 135 140
Asp Phe Pro Gly Asp Val Ile Thr His Ala Val Tyr Ser Val Asp Thr
145 150 155 160
Ala Val Thr Pro Gln Asn Pro Lys Gly Leu Pro Gln Leu Thr Thr Lys
165 170 175
Leu Ile Ser Leu Ala Leu Thr Glu Ala Thr Pro Ile Met Leu Ser Asn
180 185 190
His Ile Tyr Trp Asn Leu Asn Ala Phe Lys Ala Pro Asn Val Leu Asn
195 200 205
Asp Thr Phe Leu Gln Leu Pro Tyr Ser Asn Arg Leu Ile Ala Thr Asp
210 215 220
Gly Ile Leu Ile Pro Asn Gly Thr Ile Leu Thr Val Asp Ala Phe Asn
225 230 235 240
Gly Ala Pro Asp Phe Thr Glu Gly Lys Leu Ile Gly Ala Asp Leu Lys
245 250 255
Asp Thr Tyr Gly Met Cys Gly Thr Asp Cys Thr Gly Tyr Asp Thr Cys
260 265 270
Trp Leu Val Asp Arg Pro Pro Gln Tyr Ala Ala Pro Asp Ser Leu Val
275 280 285
Pro Ile Val Arg Met Asn Ser Ser Ala Thr Gly Ile Ser Leu Glu Val
290 295 300
Ser Ser Asn Met Pro Ala Leu Gln Ile Tyr Thr Cys Asp Asn Ala Lys
305 310 315 320
Met Asp Tyr Leu Pro Ile Lys Pro Ser Gln Glu Lys Arg Asn Lys Glu
325 330 335
Glu Gly Lys Glu Gly Ala Lys Asn Val Met Gln Tyr Gly Cys Val Val
340 345 350
Ile Glu Pro Glu Gly Trp Ile Asp Gly Ile Asn His Pro Glu Trp Gly
355 360 365
Gln Leu Pro Leu Gln Ile Phe Ser Pro Asn Asp Gly Pro Ala Val Asn
370 375 380
Trp Ala Thr Tyr Gln Phe Gly Thr Val
385 390

<210> 32861
<211> 563
<212> PRT

<213> A.fumigatus

<220>
<221> UNSURE
<222> (415),(444)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32861

```
Glu Ala Met Ala Thr Pro Ser Thr Ala Ser Leu Asp Asp Glu Lys Arg
1               5                  10                  15
Ser Val Ser Ala Asn Thr Ser Phe Pro Leu Asn Leu Arg His Asn Gln
            20                  25                  30
Thr Gly Arg Pro Ser Ser Pro His Thr Pro Gln Gln Gln Leu Arg Ser
        35                  40                  45
Ser Asn Ser Ser Phe Ala Ser Thr Gly Ser Gly Gly Ser Ser Phe Arg
    50                  55                  60
Gly Glu Glu Asp Ala Ile Ile Phe Glu Leu Gly Ser Arg Trp Phe Arg
65                  70                  75                  80
Ala Gly Phe Glu Gly Glu Ser Thr Pro Ile Cys Val Val Gly Tyr Gly
                85                  90                  95
Pro Asn Asp Trp Arg Arg Ala Gly Asp Tyr Arg Gly Trp Val Lys Gly
            100                 105                 110
Ile Asp Asn Thr Ser Ser Ser Arg Ala Val Asn Ala Asp Pro Trp Thr
        115                 120                 125
Gly Ala Tyr Glu Leu Trp Arg Met Asp Leu Arg Asp Val Asp Leu Gly
    130                 135                 140
Leu Ile Glu Asp Lys Ile Gly Arg Val Phe Arg Glu Thr Tyr Asn Lys
145                 150                 155                 160
Tyr Leu Leu Thr Asp Ala Gly Thr Ser Arg Leu Val Leu Val Ile Pro
                165                 170                 175
Ser Ile Met Pro His Pro Leu Leu Ser Ser Ile Leu Ser Thr Leu Phe
            180                 185                 190
Ser Arg Trp Arg Phe Pro Ser Ile Thr Leu Leu Pro Ser Pro Ala Met
        195                 200                 205
Ala Ala Val Ala Ala Gly Leu Arg Ser Ala Leu Val Val Asp Leu Gly
    210                 215                 220
Trp Ala Glu Thr Thr Val Thr Gly Leu Tyr Glu Tyr Arg Glu Ile Ser
225                 230                 235                 240
Ala Lys Arg Ser Thr Arg Ala Met Lys Ser Leu Leu Gln Glu Thr Gly
                245                 250                 255
Arg Met Leu Thr Arg Leu Ala Ser Asp Ala Ser Arg Glu Ser Glu Val
            260                 265                 270
Ala Asp Asp Ile Thr Val Ser Phe Glu Tyr Cys Glu Glu Val Val Ser
        275                 280                 285
Arg Phe Ala Trp Cys Lys Pro Arg Val Gly Asp Lys Val Ala Ser Leu
    290                 295                 300
Ser Glu Ser Arg Asn Met Gln Ser Pro Thr Gly Asn Val Pro Glu Ser
305                 310                 315                 320
Ile Gly Asn Arg Met Val Ser Ile Pro Ser Pro Ser Asn Pro His Ser
                325                 330                 335
Thr Tyr Ile Asp Ile Pro Phe Ser Ala Leu Ala Glu Pro Val Glu Lys
            340                 345                 350
Ile Leu Phe Ala Lys Glu Ser Ala Glu Arg Asp Leu Asp Asp Glu Glu
        355                 360                 365
Lys Ser Ile Pro Leu Leu Val Tyr Asn Thr Leu Leu Gly Leu Pro Pro
    370                 375                 380
```

```
Asp Val Arg Gly Thr Cys Met Ser Arg Ile Ile Phe Val Gly Gly Gly
385                 390                 395                 400
Ala Asn Ile Pro Gly Ile Arg Arg Arg Val Ile Asp Glu Val Xaa Ala
                405                 410                 415
Met Val Asn Ala Tyr Gly Trp Ser Pro Val Arg Gly Glu Ala Phe Gln
            420                 425                 430
Lys Val Glu Glu Lys Phe Leu Ala Ser Arg Leu Xaa Thr Pro Ala Pro
        435                 440                 445
Val Thr Gly Ser Gln Ser Ser Ala Val Pro Asp Asn Gln Asp Gln Glu
    450                 455                 460
Ala Ala Glu Glu Glu Val Asp Phe Val Glu Gln Lys Leu Arg Arg Ser
465                 470                 475                 480
Lys Asp Lys Asp Thr Lys His Gln Val His Gly Ile Leu Arg Glu Val
                485                 490                 495
Glu Ser Leu Gly Ala Trp Ala Gly Ala Ser Leu Val Ala Ser Leu Lys
            500                 505                 510
Ile Arg Gly Gln Val Glu Ile Glu Arg Glu Lys Tyr Leu Gln His Gly
        515                 520                 525
Leu Ala Gly Ala Ser Arg Asp Leu Glu His Gly His Val Pro Asp Arg
    530                 535                 540
Arg Ser Gly Leu Arg Ala Gly Gly Asp Arg Ser Ser Trp Thr Leu Ala
545                 550                 555                 560
Ala Trp Gly
```

<210> 32862
<211> 71
<212> PRT
<213> A.fumigatus

<400> 32862

```
His Glu His Phe Ala Leu Leu Asp Glu Thr Val Pro Ser Ser Ser Phe
1               5                   10                  15
Ser Asp Ile Gln Gln Arg Gly Val Ala Ile Ser Ile Arg Trp Phe Cys
            20                  25                  30
Ile Gly Ile Thr Ser Leu Ala Ile Ser Ser Ile Ser Glu Ala Ser Gln
        35                  40                  45
Ser Pro Gln Asp Asn Gln Met Ala Ile Asn Leu Trp Glu Lys Arg Phe
    50                  55                  60
Glu Lys Arg His Phe Ser Ser
65                  70
```

<210> 32863
<211> 70
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (19)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32863

```
Cys Cys Ile Phe Ser Pro Leu Leu Phe Pro Ser Phe Ser Leu Leu Ser
1               5                   10                  15
Ser Leu Xaa Tyr Phe Leu Ser Asp Ser Thr Tyr Ile Val Thr Ile Tyr
```

```
            20                  25                  30
Leu Ser Val Pro Ser Leu Ser Asp Leu Ser Ala Gln Gln Leu Arg Lys
        35                  40                  45
Arg Gly Leu Asn His Leu Leu Gly Gly Ser Phe Arg Cys Asn Lys Val
    50                  55                  60
His Asn Met Arg Leu Pro
65                  70
```

<210> 32864
<211> 560
<212> PRT
<213> A.fumigatus

<400> 32864

```
Arg Ser Ile Arg Val Ile Val Val Asn Thr Ile Ser Leu Gly Cys Ala
1               5                   10                  15
Ile Met Ser Asn Phe Val Leu Leu Trp Gly Met Ala Arg Arg Ile Ala
            20                  25                  30
Phe Ser Ile Ala Gln Pro Ile Ile Ile Ile Gly Trp Tyr Ile Ser Ser
        35                  40                  45
Leu Leu Leu Thr Cys Leu Leu Cys Ile Phe Ala Ala Ser Lys Val Gln
    50                  55                  60
Asn Asp Ser Asp Ser Gly Arg His Arg Trp Leu Thr Gly Ser Tyr Tyr
65                  70                  75                  80
Tyr Gly Ala Phe Ala Ala Gly Leu Tyr Phe Val Leu Ser Ser Leu Leu
                85                  90                  95
Leu Ile Thr Val Tyr Gly Ala Cys Arg Gly His Tyr Ser Arg Glu Phe
            100                 105                 110
Arg Leu Thr Thr Ser Gln Arg Ser Leu Met Leu Gln Thr Ile Leu Phe
        115                 120                 125
Leu Ile Tyr Leu Leu Gly Gly Ala Ala Val Tyr Ala Arg Ile Glu Gly
    130                 135                 140
Trp Arg Tyr Leu Asp Ala Val Tyr Trp Ala Asp Leu Thr Leu Leu Thr
145                 150                 155                 160
Ile Gly Ile Gly Asp Phe Val Pro Glu Thr His Lys Gly Arg Gly Leu
                165                 170                 175
Leu Phe Pro Tyr Ala Val Gly Gly Ile Leu Ile Leu Gly Leu Ile Val
            180                 185                 190
Gly Ser Ile Arg Ala Gln Met Leu Glu Lys Gly Arg Gln Lys Met Ala
        195                 200                 205
Glu Thr Val Ala Glu Arg Thr Arg Arg Phe Leu Val Arg Glu Ala Val
    210                 215                 220
Ser Asp His Arg His Leu Arg Asp Val Val Pro Arg Leu Gln Pro Glu
225                 230                 235                 240
Arg Asp Glu Ser Asp Arg Asp Arg Gln Leu Arg Glu Phe Gln Leu Met
                245                 250                 255
Arg Arg Val Arg Gln Ile Ala Thr Leu Glu Arg Lys Trp Ile Ser Leu
            260                 265                 270
Ala Thr Ala Leu Thr Val Trp Thr Met Leu Trp Val Leu Gly Ala Ile
        275                 280                 285
Ala Phe Trp Leu Pro Gly Gln Asn Glu Lys Leu Thr Tyr Phe Glu Ala
    290                 295                 300
Leu Tyr Phe Ala Tyr Thr Thr Leu Phe Thr Ile Gly Tyr Gly Asp Phe
305                 310                 315                 320
His Ala Thr Ser Glu Trp Glu Arg Pro Phe Phe Val Phe Trp Thr Leu
                325                 330                 335
```

```
Leu Ala Val Pro Thr Val Thr Leu Leu Ile Ala Asn Val Gly Asp Thr
            340                 345                 350
Leu Val Arg Thr Ile Arg Asp Phe Thr Ile Tyr Leu Gly Glu Leu Thr
        355                 360                 365
Ile Leu Pro Gly Asp Lys Pro Ile Arg Glu Leu Ile Lys Asp Leu Phe
    370                 375                 380
Arg Leu Ser Trp Ala Glu Arg Phe Leu Thr Glu Ala Val Ala Asp Lys
385                 390                 395                 400
Lys Pro Asp Glu Glu Asp Val Glu Glu Ser Ala Ala Thr Ala Thr Ala
                405                 410                 415
Thr Ala Val Arg Asn Ala Asn Gln Gly Asp Gln Gly Glu Glu Gln Glu
            420                 425                 430
Arg Asn Ala Ile Glu Ala Asp Gly His Arg Lys Glu Glu Ser Ala Arg
        435                 440                 445
Ala Arg Gly Asp Val Thr Val Glu Thr Ile His His His His Tyr Met
    450                 455                 460
Leu Phe Arg Glu Val Arg Arg Met Met Asp Tyr Ala Thr Arg Asn Leu
465                 470                 475                 480
His Lys Glu Phe Asp Tyr Gln Glu Trp Glu Tyr Phe Leu Asn Leu Ile
                485                 490                 495
Ala Ser Asp Gly Gly Glu Thr Asp Gly Glu Glu Gly Asn Ser Lys Trp
            500                 505                 510
Asp Trp Thr Gly Tyr Lys Ser Pro Leu Leu Gly Gln Lys Thr Glu Val
        515                 520                 525
Gln Trp Leu Leu Glu Ala Leu Thr Glu Ala Leu Glu Arg Glu Leu Arg
    530                 535                 540
Lys Ala Ser Arg Gly Tyr His Leu Ser Glu Gln Ser Glu Phe Glu Gln
545                 550                 555                 560

<210> 32865
<211> 69
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (60)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32865
Tyr Leu Val Ile Glu Ile Val Leu Val Asn Ser Thr Asp Leu Phe Ile
1               5                   10                  15
Leu Tyr Leu Leu Val Glu Glu Leu Asn Ile Ile Tyr Leu Glu Gly Val
            20                  25                  30
Ser Ile Lys Tyr Asn Leu Ile Ser Leu Phe Ile Ile Ile Leu Ile Ile
        35                  40                  45
Leu Ile Arg Ile Ala Ser Arg Thr Ser Ser Asn Xaa Arg Pro Asp Thr
    50                  55                  60
Pro Gly Asn Gly Lys
65

<210> 32866
<211> 76
<212> PRT
<213> A.fumigatus
```

<400> 32866
Tyr Ile Leu Val Tyr Asn Phe Phe Leu Phe Ile Ser Phe Lys Tyr Ile
1 5 10 15
Tyr Thr Asn Tyr Ser Val Phe Ile Lys Tyr Ser Ile Thr Ile Leu Leu
20 25 30
Tyr Ile Asp Asn Ile Leu Ile Leu Leu Asn Ser Asn Asn Leu Ile Asn
35 40 45
Asn Phe Leu Lys Gln Leu Gly Lys Leu Phe Lys Tyr Ile Asn Asn Ser
50 55 60
Lys Val Ser Val Tyr Leu Gly Ile Asp Ile Leu Tyr
65 70 75

<210> 32867
<211> 61
<212> PRT
<213> A.fumigatus

<400> 32867
Leu Ile Leu Gly Thr Tyr Leu Asp Ile Thr Phe Thr Ile Ser Lys Leu
1 5 10 15
Thr Tyr Phe Thr Arg Asn Pro Ser Pro Asn Tyr Phe Ile Ile Val Lys
20 25 30
Tyr Ile Phe Cys Tyr Leu Ile Glu Thr Leu Leu Leu Leu Leu Phe Tyr
35 40 45
Leu Ser Ile Leu Ser Asn Asn Ser Phe Ile Asn Thr Asn
50 55 60

<210> 32868
<211> 295
<212> PRT
<213> A.fumigatus

<400> 32868
Gly Ala Gly Met Pro Leu Arg Ala Asn Tyr Gly Pro Asp Arg Gly Asp
1 5 10 15
Ile Val Gly Pro Arg Thr Pro Lys Lys Lys Arg Val Lys Thr Lys Ala
20 25 30
Lys Lys Asp Val His Met Asp Ala Leu Asp Pro Ala Thr Pro Ile Arg
35 40 45
Glu Ser Leu Pro Leu Thr Pro Pro Pro Ser Met Pro Gly Pro Ser Asp
50 55 60
Asn Leu Gly Ser Ser Phe Gly Gln Ser Ala Ala Ser Pro Glu Ser Met
65 70 75 80
Thr Ala Ile Phe Ser Ser Pro Ser Pro Ile Pro Ser Ser Pro Phe Pro
85 90 95
Phe Ser Pro Val Phe Ser Ser Pro Leu Leu Ser Pro Val Leu Ser Pro
100 105 110
Val Ser Ser Pro Val Pro Gly Ser Pro Val Pro Thr Phe Thr Val Pro
115 120 125
Glu Glu Asp Asp Leu Asp Ser Pro Leu Glu Asp Thr Leu Tyr Asn Gly
130 135 140
Asp Met Cys Pro Cys Asn Phe Asp Phe Leu Ile Lys Gly Glu Ser Arg
145 150 155 160
Gln Gly Leu Asp Trp Leu His Pro Cys Glu Glu Glu Leu Leu Asp Leu
165 170 175
Arg Arg Asp Val Pro Lys Ala Leu Lys Thr Ser Arg Arg Pro Gln Met

```
            180                 185                 190
Lys Arg Gln His Thr Ala Phe Lys Lys Ser Leu Pro Phe Cys Asn Thr
        195                 200                 205
Asp Ser Leu Tyr Ala Lys Phe Ala Asn Lys Phe Asp Leu Asp Asp Met
    210                 215                 220
Ile Asn Val Val Pro Lys Ser Arg Thr Thr Ala Pro Pro Leu Pro Asp
225                 230                 235                 240
Pro Leu Ile Pro Ser Leu Val Cys Glu Pro Met Thr Leu Arg Pro Ile
                245                 250                 255
Phe His Pro Arg Pro Asn Asn Glu Ser Val Leu Lys Ser Val Ser Asp
            260                 265                 270
Val Ala Leu Asn Glu Tyr Tyr Ala Gly Gln Lys Phe Leu Phe Glu Met
        275                 280                 285
Pro Tyr Val Lys Gly Val Met
    290                 295

<210> 32869
<211> 65
<212> PRT
<213> A.fumigatus

<400> 32869
Ser Lys Gly Val Asn Glu His Thr Gln Ala Cys Glu Asn Cys Arg Val
1               5                   10                  15
Thr Cys Leu Glu Pro Thr Lys Asn Met His Ala Lys Ser Gly Ser Ile
            20                  25                  30
Ile Val Gly Asp Gln Ser Lys Lys Leu Gly Asn Gly Lys Lys Val Phe
        35                  40                  45
Lys Ala Ile Leu Asp Gly Ser Thr Gly His Gly Pro Ala Ser Leu Ser
    50                  55                  60
Val
65

<210> 32870
<211> 873
<212> PRT
<213> A.fumigatus

<400> 32870
Ala Glu Glu Arg Thr Met Ala Ser His Ala Ala Met Leu Leu Asp Pro
1               5                   10                  15
Lys Ala Tyr Arg Lys Gln Leu Gln Lys Asn Gly Asn Asp Pro Glu Ile
            20                  25                  30
Ser Tyr Ala Ser Pro Asp Ser His Ile Ser Ala Gln Asn Glu Ala Pro
        35                  40                  45
Asp Glu Pro Leu Phe Phe Phe Pro Ser Ser Ser Arg Cys Ser Ser Pro
    50                  55                  60
Pro Glu Asp Pro Glu Tyr Leu Asp Pro Asn Asp Leu Leu Val Asp Gly
65                  70                  75                  80
Thr Gly Gln Gln Ser Thr Ser Ala Ser Pro Arg Ser Ala Pro Thr Thr
                85                  90                  95
Ala Ala Pro Ala Gly Thr Val Ser Ala Ala His Gln Leu Leu Asn Pro
            100                 105                 110
Gln Arg Arg Pro Arg Ser Ser Lys Val Ser Pro Lys Ser Asn Ser Gly
        115                 120                 125
Ser Gln Thr Glu Ser Val Arg Ser Gln Glu Glu Gly Ser Ala Ser Ser
```

```
    130                 135                 140
Ser Pro Arg Arg Pro Ala Arg Asn Gly Pro Ala Pro Glu Ile Glu Phe
145                 150                 155                 160
Met Ser Ala Gln Ser Glu Asp Asp Asn Asp Trp Lys Arg Asn Ser Asp
                165                 170                 175
His Leu Asp Ser Asp Val Glu Ala Arg His Ala Ser Leu Ile Glu Asp
            180                 185                 190
Met Tyr Gly Val Glu Lys Arg Val His Gln Pro Tyr Lys Lys Ile Lys
        195                 200                 205
Arg Glu Asn Asp Lys Glu Ala Ser Lys Thr Gly Arg Asn Gly Pro Ile
    210                 215                 220
Thr Ile Thr Gly Asp Thr Gln Leu Gly Lys Tyr Met Lys Glu Asp Lys
225                 230                 235                 240
Gly Lys Ser Glu Tyr Ser Ser Pro Ala Thr Pro Ser Val Val Asp Leu
                245                 250                 255
Thr Ile Gly Glu Lys Ile Ser Asp Gly Ser Glu Lys Arg Asp Asp Cys
            260                 265                 270
Met Leu Thr Gly Ser Cys Thr Asp Lys Thr Gly Ala Thr Asn Asp Asp
        275                 280                 285
Asp Asp Leu Gln Val Thr Gly Ser Asn Asn Leu Ser Val Gln Arg Val
    290                 295                 300
Cys Tyr Glu Arg Leu Asp Asn Ala Met Ile Gln Ala Gln Ile Val Pro
305                 310                 315                 320
Lys Pro Ala Ala Gln Asn Ile Phe Gly Asp Ser Ala His Asp Trp Pro
                325                 330                 335
Ser Ile Lys Leu Gly Val His Arg His Pro Asp Arg Asn Ser Tyr Arg
            340                 345                 350
Ile Asp Val Ser Asp Pro His Gly Lys Ile Phe Gly Ala Val Asp Ala
        355                 360                 365
Lys Thr Ala Ala Val Ile Val Pro Leu Leu Asp Ser Gln Ala Leu Lys
    370                 375                 380
Val Asp Met Thr Ala Arg Leu Asp Val Arg Arg Arg Leu Pro Gly Glu
385                 390                 395                 400
Met Pro Trp Ala Pro Cys Ser Ala Leu Tyr Arg Ala Ser Ile Asn Leu
                405                 410                 415
Tyr Gly Leu Arg Lys Asp Ala Glu Leu Val Gly Lys His Leu Gly Gln
            420                 425                 430
His Asn Val Trp Leu Gly Thr Pro Phe Ser Val Glu Gln Gly Val Pro
        435                 440                 445
Val Phe Asn Pro His Ala Glu Arg Arg Arg Ala Gln Ala Ala Ser Phe
    450                 455                 460
Leu Pro Ser Ile Ala Ala Arg Gly Arg Thr Gly Val Ser Tyr Glu Val
465                 470                 475                 480
Arg Thr Ala Glu Glu Val Asn Asp Ala Val Met Lys Met Phe Asp Gln
                485                 490                 495
Leu Gln Ser Ala Gln Asn Leu Pro Glu Met Glu Pro Pro Asp Ser Val
            500                 505                 510
Leu Thr Pro Leu Leu Arg His Gln Lys Gln Ala Leu Trp Phe Met Thr
        515                 520                 525
Glu Lys Glu Lys Pro Arg Lys Phe Gly Pro Lys Glu Glu Asp Asn Asn
    530                 535                 540
Ser Leu Trp Arg Ile Glu Tyr Arg Ala Asn Gly Val Lys Arg Tyr Arg
545                 550                 555                 560
Glu Ile Ile Ser Gly Ile Val Leu Asp Glu Glu Pro Pro Gln Ser Leu
                565                 570                 575
Gly Gly Leu Leu Ala Asp Met Met Gly Leu Gly Lys Thr Leu Ser Ile
```

```
            580                 585                 590
Leu Ser Leu Val Val Ser Ser Leu His Gln Ala His Glu Trp Ala Thr
        595                 600                 605
Lys Ile Pro Glu Pro Asp Ile Val Arg Ser Leu Pro Gly Ile Arg Asn
    610                 615                 620
Cys Lys Thr Thr Leu Leu Val Val Pro Leu Ser Thr Val Asn Asn Trp
625                 630                 635                 640
Val Ser Gln Ile Lys Glu His Leu Lys Glu Asn Ala Ile Ser Tyr Tyr
                645                 650                 655
Val Phe His Gly Ser Ser Arg Thr Asn Asp Val Asp Glu Leu Ser Ser
            660                 665                 670
Tyr Asp Val Val Ile Thr Thr Tyr Ser Ile Val Leu Ser Glu Leu Ser
        675                 680                 685
Gln Arg Gly Ser Lys Arg Gly Val Ser Pro Leu Thr Lys Met Asn Leu
    690                 695                 700
Phe Arg Ile Val Leu Asp Glu Ala His Asn Ile Arg Glu Gln Ser Ala
705                 710                 715                 720
Ala Gln Thr Gln Ala Ile Phe Lys Leu Asn Ala Gln Arg Arg Trp Ser
                725                 730                 735
Val Thr Gly Thr Pro Ile Gln Asn Arg Leu Glu Asp Leu Leu Ser Val
            740                 745                 750
Thr Lys Phe Leu Gly Leu Val Pro Tyr Asp Asp Arg Ala Arg Phe Gly
        755                 760                 765
Met His Ile Leu Ser Arg Phe Lys Thr Gly Asp Ala Thr Val Leu Ala
    770                 775                 780
Ser Leu Arg Val Leu Val Asp Ser Phe Thr Leu Arg Arg Val Lys Asp
785                 790                 795                 800
Lys Ile Asp Ile Pro Pro Arg His Asp Lys Ile Ile Thr Leu Asp Phe
                805                 810                 815
Ser Glu Lys Glu Lys Gln Leu His Glu Phe Phe Arg Lys Glu Ser Asn
            820                 825                 830
Val Met Met Arg Val Ile Ala Gly Glu Asp Lys Thr Lys Met Lys Gly
        835                 840                 845
Arg Met Tyr His His Ile Leu Lys Thr Met Met Ile Leu Arg Gln Ile
    850                 855                 860
Ser Ala Gln Arg Lys Arg Ala Ser Arg
865                 870
```

<210> 32871
<211> 68
<212> PRT
<213> A.fumigatus

```
<400> 32871
Leu Asn Pro Ala Thr Phe Val Cys Asn Asp Arg Val Ala Ala Val Gly
1               5                   10                  15
Tyr Glu Ser Asn Pro Lys Val Ser Gly Thr Lys Asp Val His Leu Asp
            20                  25                  30
Pro Val Ile Cys Phe Val Cys Leu Thr Val Leu Ala Ser His Val Thr
        35                  40                  45
Asp Phe Gly Pro Arg Leu Glu Leu Phe Pro Thr Glu Gly Asp Gln Pro
    50                  55                  60
Ser Gln Cys Ser
65
```

<210> 32872

<211> 262
<212> PRT
<213> A.fumigatus

<400> 32872
Ser Lys Glu Ala Lys Val Ser Tyr His Asp Pro Leu Gln Ser Ser Asp
1 5 10 15
Pro Leu Ser His Ala Asp Gly Leu Leu Ser Ser His Glu Gly Leu Tyr
20 25 30
Ser Asp Lys Glu Asn Ala Pro Ala Ala Gly Asp Ser Leu Asp Val Leu
35 40 45
Lys Asn Pro Lys Arg Arg Ala Asn Ala Ala Gly Pro Ser Arg Val Val
50 55 60
Ser Gln Glu Val Arg Gly Ala Asp Tyr Arg Ile Leu Ser Pro Lys Ser
65 70 75 80
Leu Asn Ser Arg Thr Tyr Pro Gln Ser Pro Phe Arg Ala Ser Pro Glu
85 90 95
Lys Pro His Asn Ser Ser Tyr Leu Ser Arg Pro Met Ser Pro Leu Lys
100 105 110
Pro Ser Ser Pro Leu Lys Ser Thr Ser Ala Ser Ala Ala Gly Asn Ala
115 120 125
Asp Asn Ala Arg Ser Arg Thr Thr Lys Ala Asn Thr Thr Ser Thr Arg
130 135 140
Asp Thr Arg Pro Pro Ser Gln Thr Lys Arg Pro Ala Ser Arg Ala Ala
145 150 155 160
Thr Thr Thr Lys Thr Val Arg Ser Pro Leu Ser Arg Pro Ala Thr Gln
165 170 175
Leu Asp Arg Arg Gly Ser Ile Ser Ser Thr Ala Ser Ser Gly Thr Thr
180 185 190
Val Met Lys Pro Gly Arg Pro Gly Ala Gly Thr Arg Lys Ala Thr Thr
195 200 205
Val Ser Ser Ala Ser Ala Pro Val Lys Arg Thr Thr Ile Ala Arg Asn
210 215 220
Gln Ala Pro Ser Val Ala Ser Lys Arg Ser Thr Ala Ser Ala Thr Arg
225 230 235 240
Lys Ala Thr Ala Pro Ala Gly Asn Glu Ala Ser Ala Thr Gly Arg Arg
245 250 255
Val Leu Arg Lys Arg Ala
260

<210> 32873
<211> 83
<212> PRT
<213> A.fumigatus

<400> 32873
Ser Cys Gly Arg Gly Gly Cys Glu Leu Ala Pro Asp Ala Gly Thr Ser
1 5 10 15
Gly Gln Ala Phe Arg Asp Glu Val Val Arg Phe Ser Trp Ser Ile Phe
20 25 30
Ser Asn Tyr Lys Tyr Thr Asn Phe Met Pro Lys Ser Leu Val Ser Thr
35 40 45
Glu Leu Ile Val Val Tyr Asn Thr Glu Ile Asn Ile Leu Ser His Phe
50 55 60
Ser Thr Ser Ile Asp Ala Thr Asp Val Tyr Asn Leu Val Thr Val Ala
65 70 75 80

JC542 U.S. PTO
09/417507
10/14/99

Arg Ser Phe

<210> 32874
<211> 75
<212> PRT
<213> A.fumigatus

<400> 32874
Cys Val Trp Ile Ala Gln Thr Ala Lys Ile Gly Ser Leu Val Asp Val
1 5 10 15
Thr Glu Ser Ala Asp Pro Glu Gly Leu Arg Val Phe Tyr Tyr Leu Val
20 25 30
Gln Asp Leu Lys Ala Leu Ile Phe Ser Leu Ile Ser Leu His Phe Lys
35 40 45
Val Leu Phe Arg Asp Phe Phe Asp Leu Gln Thr Ile Tyr Leu Leu Leu
50 55 60
His Tyr Phe Cys Arg Leu Ser Leu Ser Lys Ser
65 70 75

<210> 32875
<211> 138
<212> PRT
<213> A.fumigatus

<400> 32875
Arg Pro Leu Ala Pro Val Gly Leu Thr Glu Asp His Pro Thr Leu Thr
1 5 10 15
Thr Phe Phe Glu Gly Glu Ile Ile Gly Thr Lys His Thr Phe Lys Thr
20 25 30
Arg Asn Glu Ala Trp Gly Ala Thr Glu Lys Thr Asp Met His His Trp
35 40 45
Ala Arg Phe Pro Ala Trp Arg Pro Leu Ala Lys Gln Ala Lys Lys Pro
50 55 60
Asp Phe Thr Tyr Trp Asn Phe Ala Glu Arg Glu His Ile Phe Met Arg
65 70 75 80
Trp Lys Glu Tyr Phe Leu Val Pro Asp His Arg Val Arg Thr Ile Ser
85 90 95
Gly Ala Ser Phe Glu Gly Phe Tyr Tyr Ile Cys Phe Asn Gln Ile Lys
100 105 110
Arg Ser Val Thr Gly Ile Tyr Phe His Ala Lys Ser Glu Lys Tyr Val
115 120 125
Ser Val Lys Gln Leu Thr Val Leu Gly Ser
130 135

<210> 32876
<211> 151
<212> PRT
<213> A.fumigatus

<400> 32876
Leu Ala Ser Met Pro Thr Pro Ser Asp Asn Thr Ser Pro Leu Asn Val
1 5 10 15
Ala Ser Ile Thr Glu Asp Ile Ser Thr His Thr Thr Cys Pro Pro Glu
20 25 30
Val Glu Arg Leu Ser Ser Trp Arg Asp Ser Pro Glu Pro Ser Ala Thr

```
        35                  40                  45
Glu Ser Asp Val Pro Asp Asn Ala Ser Ser Pro Ser Ile Arg Ser Ala
    50                  55                  60
His Thr Leu Leu Thr Ala Gln Pro Asp Gly Thr Ile Asn Gln Ser Asn
65                  70                  75                  80
Thr Asp Val Ser Gly Val Ala Ser Gly His Thr Ala Pro Glu Lys Gly
                85                  90                  95
Thr Met Arg Ser Asp Asp Glu Val Ala Leu Gly Arg Leu Ser Pro Thr
            100                 105                 110
Arg Gly Thr Ala Ser Ser Ala Lys Pro Thr Ser Thr Val Ala Ser Pro
        115                 120                 125
Ser Thr Ala Ser Leu Val Ser Tyr Glu Phe Ser His Val Arg Val Ser
    130                 135                 140
Glu Pro Ala Leu Leu Arg Arg
145                 150
```

<210> 32877
<211> 582
<212> PRT
<213> A.fumigatus

<400> 32877

```
Arg Leu Leu Ser Arg Thr Arg Val Lys Pro Ala Val Gln Arg Arg Phe
1               5                   10                  15
Phe Ala Pro Ser Arg Ser Gly Pro Ala Arg Asn Arg Phe Gln Arg Lys
            20                  25                  30
Gln Ala Asn Leu Lys Asp Val Val Arg Val Asn Gln Val Ala Ile Arg
        35                  40                  45
Leu Pro Gly Phe Val Lys Phe Ala Arg Glu Cys His Gly Arg Ala Ile
    50                  55                  60
Pro Asp Ser Leu Glu Thr Glu Tyr Thr Ser Lys Val Arg Ser His Ser
65                  70                  75                  80
Asp Ser Val Ala Lys Leu Glu Glu Met Val Glu Thr Thr Val Asp Leu
                85                  90                  95
Ala Ala Leu Glu Asn His Glu Phe Ile Ile Lys Pro Glu Phe Asp Asp
            100                 105                 110
Ser Leu Arg Ile Ile Arg Lys Lys Leu Asp Lys Leu Arg His Asp Met
        115                 120                 125
Asp Val Glu His Arg Arg Val Ala Lys Asp Leu Asp Gln Glu Val Asp
    130                 135                 140
Lys Lys Leu Phe Leu Glu Asn His Arg Val His Gly Trp Cys Phe Arg
145                 150                 155                 160
Leu Thr Arg Asn Glu Ala Gly Cys Ile Arg Asn Lys Arg Glu Tyr Gln
                165                 170                 175
Glu Cys Ser Thr Gln Lys Asn Gly Val Tyr Phe Thr Thr Ser Thr Met
            180                 185                 190
Gln Ala Leu Arg Arg Glu His Asp Gln Leu Ser Ser Asn Tyr Asn Arg
        195                 200                 205
Thr Gln Ser Gly Leu Val Asn Glu Val Val Asn Val Ala Ala Ser Tyr
    210                 215                 220
Cys Pro Val Leu Glu Gln Leu Ala Gly Val Leu Ala His Leu Asp Val
225                 230                 235                 240
Ile Val Ser Phe Ala His Ala Ala Val His Ala Pro Thr Ala Tyr Val
                245                 250                 255
Arg Pro Lys Met His Pro Arg Gly Thr Gly Asn Thr Ile Leu Lys Glu
            260                 265                 270
```

```
Ala Arg His Pro Cys Met Glu Met Gln Asp Asp Ile Ser Phe Ile Thr
        275                 280                 285
Asn Asp Val Ser Leu Ile Arg Asp Glu Ser Ser Phe Leu Ile Ile Thr
    290                 295                 300
Gly Pro Asn Met Gly Gly Lys Ser Thr Tyr Ile Arg Gln Ile Gly Val
305                 310                 315                 320
Ile Ala Leu Met Ala Gln Thr Gly Cys Phe Val Pro Cys Ser Glu Ala
                325                 330                 335
Glu Leu Thr Ile Phe Asp Cys Ile Leu Ala Arg Val Gly Ala Ser Asp
            340                 345                 350
Ser Gln Leu Lys Gly Val Ser Thr Phe Met Ala Glu Met Leu Glu Thr
        355                 360                 365
Ser Asn Ile Leu Lys Ser Ala Thr Ser Glu Ser Leu Ile Ile Ile Asp
    370                 375                 380
Glu Leu Gly Arg Gly Thr Ser Thr Tyr Asp Gly Phe Gly Leu Ala Trp
385                 390                 395                 400
Ala Ile Ser Glu His Ile Val Thr Glu Ile Arg Cys Phe Gly Leu Phe
                405                 410                 415
Ala Thr His Phe His Glu Leu Thr Ala Leu Ala Asp Arg Tyr Pro Lys
            420                 425                 430
Ser Val Lys Asn Leu His Val Val Ala Phe Ile Gly Asp Gly Thr Asn
        435                 440                 445
Asp Asn Ala Gly Glu Glu Arg Pro Lys Lys Gln Gln Val Thr Leu Leu
    450                 455                 460
Tyr Arg Val Glu Pro Gly Ile Cys Asp Gln Ser Phe Gly Ile His Val
465                 470                 475                 480
Ala Glu Leu Val Arg Phe Pro Glu Lys Val Val Asn Met Ala Arg Gln
                485                 490                 495
Lys Ala Glu Glu Leu Glu Asp Phe Thr Ser Ala Glu Ala Gln Gly Gln
            500                 505                 510
Gln Ala Gly Ala Ser Ile Asp Gly Tyr Ser Gln Glu Glu Val Glu Glu
        515                 520                 525
Gly Ser Ala Leu Leu Lys Gly Met Leu Leu Lys Trp Lys Ala Glu Ile
    530                 535                 540
Glu Ser His Asp Arg Lys Leu Thr Val Glu Glu Lys Arg Gln Ile Met
545                 550                 555                 560
Arg Asp Leu Val Asn Ala Asp Glu Lys Leu Arg Ala Asn Lys Val Phe
                565                 570                 575
Gln Ser Ile Lys Ala Leu
            580
```

<210> 32878
<211> 267
<212> PRT
<213> A.fumigatus

<400> 32878

```
His Leu Lys Gln Leu Thr Tyr Thr Leu Arg Gly Leu Ala Thr Thr Pro
1               5                   10                  15
Asn Gly Ile Glu Phe Gln Gly Lys Val Ile Ala Cys Gly Ala Phe Pro
            20                  25                  30
Ile Gly Ile Asp Pro Glu Lys Phe Gln Glu Gly Leu Lys Lys Glu Lys
        35                  40                  45
Val Gln Lys Arg Ile Ala Gln Leu Glu Gln Lys Phe Gln Gly Val Lys
    50                  55                  60
Leu Met Val Gly Val Asp Arg Leu Asp Tyr Ile Lys Gly Val Pro Gln
```

```
65                  70                  75                  80
Lys Leu His Ala Leu Glu Val Phe Leu Ser Asp His Pro Glu Trp Val
                85                  90                  95
Gly Lys Val Val Leu Val Gln Val Ala Val Pro Ser Arg Gln Asp Val
            100                 105                 110
Glu Glu Tyr Gln Asn Leu Arg Ala Val Val Asn Glu Leu Val Gly Arg
        115                 120                 125
Ile Asn Gly Lys Phe Gly Gly Cys Ser Ala Ala Val Val Leu Ser Trp
    130                 135                 140
Ala Ser Ile Ser Asp Leu Gly Ala Ile Gly Thr Val Glu Phe Met Pro
145                 150                 155                 160
Ile His Phe Leu His Lys Ser Val Asn Phe Asp Glu Leu Ile Ala Leu
                165                 170                 175
Tyr Ala Val Ser Asp Ala Cys Ile Val Ser Ser Thr Arg Asp Gly Met
            180                 185                 190
Asn Leu Val Ala Tyr Glu Tyr Ile Ala Ser Gln Gln Lys Arg His Gly
        195                 200                 205
Val Leu Val Leu Ser Glu Phe Ala Gly Ala Ala Gln Ser Leu Asn Gly
    210                 215                 220
Ser Ile Ile Ile Asn Pro Trp Asn Thr Glu Glu Leu Ala Gly Ala Tyr
225                 230                 235                 240
Gln Glu Ala Val Thr Met Ser Asp Glu Gln Arg Ala Leu Asn Phe Ser
                245                 250                 255
Lys Leu Asp Lys Tyr Val Asn Lys Tyr Thr Arg
            260                 265
```

<210> 32879
<211> 135
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (111)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32879

```
Asp Leu Gly Glu Glu Ile Ile Ser Tyr Thr Lys Met Pro Pro Ser Asn
1               5                   10                  15
Ile Ile Arg Ala Met Gln Pro Leu Arg Ala Cys Ile Pro Arg Ser Thr
            20                  25                  30
Ile Thr Asn Ser Ser Ile Gln Ala Ser Ser Leu Gln Ser Thr Arg Ser
        35                  40                  45
Ser Asn Phe Val Arg Arg Thr Ala Ser Thr Thr Ala Pro Val Ala Lys
    50                  55                  60
Gln Pro Gln Gln Thr Ala Pro Glu Leu Thr Pro Ser Ser Thr Ile Ala
65                  70                  75                  80
Pro Pro Ser Leu Arg Lys Tyr Pro Tyr Thr Leu Lys Ile Gly Thr Val
                85                  90                  95
Val Ser Val Gly Arg Met Glu Arg Thr Val Arg Val Ser His Xaa His
            100                 105                 110
Thr Thr Trp Asp Pro Tyr Leu Arg Lys Ser Tyr Pro Lys Ile Thr His
        115                 120                 125
Tyr Leu Val Ala Asp Pro Arg
    130                 135
```

<210> 32880
<211> 67
<212> PRT
<213> A.fumigatus

<400> 32880
Leu Phe Pro Gly Phe Leu Gln Phe Trp Leu Ser Ala Lys His Leu Ile
1 5 10 15
Leu Ser Ser Thr Ser Tyr Leu Leu Ser Thr Pro Leu Gln Arg Arg Cys
20 25 30
Asp Ile Val Asp Arg Leu Asp Tyr Arg Ser Gly Ser Asp Arg Ala Cys
35 40 45
Arg Phe Leu Gln Ile Pro Asn Tyr Gly Asn Leu Phe Ala Leu Ala Asn
50 55 60
Arg Ser Thr
65

<210> 32881
<211> 295
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (60)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32881
Ser Gln Gly Phe Ser Ala Gly Glu Asp His Gln Asp Ser Gly Ala Lys
1 5 10 15
Glu Arg Arg Cys Ser Trp Leu Gln Lys Pro Thr Ser His Ala Lys Ile
20 25 30
Gly Ser Arg Ser Arg Lys Ser Gly Lys Pro Asn Gly His Ala Ala Asp
35 40 45
Ala Gly Asn Ser Gln Gly His Leu Leu Thr Thr Xaa Ile Ser Ser Asn
50 55 60
Ala Lys Arg Lys Ala Gln Ala Leu Pro Ser Lys Leu Asn Phe Arg Ala
65 70 75 80
Ser His Lys Asp Pro Gln Met Lys Arg Lys Ser Leu Ala Thr Glu Ala
85 90 95
Glu Leu Ala Asn Ala Phe Arg Asp Lys Ser Gly Ser Lys Ser Ser Thr
100 105 110
Met Ala Pro Ala Thr Thr Gln Ile Asp Arg Lys Ala Arg Lys Ser Met
115 120 125
Pro Ala Lys Leu Asn Gly Val Thr Asp Lys Lys Glu Thr Val His Pro
130 135 140
Lys Ser Ser Ala Lys Leu Ser Ala Ser Arg Pro Ser Thr Pro Leu Arg
145 150 155 160
Ile Asp Arg Lys Thr Lys Ser Thr Ser Gln Ala Ser Val Lys Ala Thr
165 170 175
Lys Ser Ala Asn Lys Val Ala Gln Val Thr Ser Ala Lys Ala Ala Thr
180 185 190
Pro Val Ala Pro Lys Thr Glu Lys Ala Glu Thr Ala Asp Ser Thr Thr
195 200 205
Pro Ala Ala Gln Ala Lys Thr Asn Ser Arg Asp Ser Thr Ala Arg Ser
210 215 220

```
Arg Arg Arg Asp Leu Lys Ser Lys Thr Gly Thr Asp Arg Ser Leu Gly
225                 230                 235                 240
Asp His Ile Gln Glu Ser Ser Thr Lys His Asn Pro Lys Pro Pro Val
                245                 250                 255
Gln Ile Tyr Glu Thr Pro Ser Gln Pro Pro Ser Ala Pro Asp Thr Thr
            260                 265                 270
Leu Glu Ala Ala Gln Leu Leu Ser Gln Gln His Lys His Val Phe Thr
        275                 280                 285
Thr Gly Leu Glu Asp Thr His
    290                 295

<210> 32882
<211> 280
<212> PRT
<213> A.fumigatus

<400> 32882
Arg Tyr Leu Leu Gly Gly Gln Leu Pro Ile Arg Pro Asp Pro Gln Trp
1               5                   10                  15
Arg Arg Arg Gln Gln Phe His Arg Gln His Gly Tyr Leu Asp His Gln
            20                  25                  30
Pro Ile Gln Arg Arg His Gln Gln Gly Val Arg His Arg Val Gln Leu
        35                  40                  45
Arg Ser Tyr Asp Asp Gly Glu His His Ala Arg Ile Lys Ala Asp His
    50                  55                  60
Ile His Thr Asn Pro Asn Asp Arg Thr Ser Trp Pro Pro His Thr Pro
65                  70                  75                  80
Asn Phe Ser Pro Pro Arg Gln Ser Thr Pro Ala Ser Pro Pro Ala Val
                85                  90                  95
Ser Thr Pro Pro Pro Thr Lys Ser Thr Pro Gly Thr Ala Ala Ala Pro
            100                 105                 110
Arg Ala Thr Ser Ser Ala Pro Gln Arg Ser Gly Ala Val Ser Pro Lys
        115                 120                 125
Gln Cys Thr Arg Gly Ile Pro Ala His Val Pro Ala Cys Arg Ser Thr
    130                 135                 140
Thr Ala Ala Trp Ile Pro Leu Ser Thr Arg Arg Ile Thr Thr Lys Pro
145                 150                 155                 160
Ala Ser Ser Gly Arg Val Ser Ser Gly Thr Thr Ile Thr Arg Arg Ser
                165                 170                 175
Arg Pro Arg Ala Thr Pro Arg Arg Arg Asn Thr Arg Ile Pro Ser Gly
            180                 185                 190
Ala Arg Ile Cys Arg Ala Tyr Leu Gln Arg Ala Ser Asp Ile Arg Phe
        195                 200                 205
Leu Phe Met Gly Ser Arg Thr Trp Ser Gly Leu Gly Leu Pro Gly Val
    210                 215                 220
Arg Arg Arg Arg Arg Arg Arg Leu Leu Leu Gln Arg Leu Arg Arg Arg
225                 230                 235                 240
Ala Arg Arg His Arg Arg Gly Gly Arg Arg Pro Ala Leu Val Leu Gln
                245                 250                 255
Ser Thr Gly Val Asn Val Ala Ala Met Gly Gly Arg Gly Arg Arg Arg
            260                 265                 270
Val Arg Ala Gly Ile Pro Ala Pro
        275                 280

<210> 32883
<211> 220
```

<212> PRT
<213> A.fumigatus

<400> 32883
Val Gln His Glu Ser Cys Asn Gln Val Arg Lys Ser Leu Thr Leu Ser
1 5 10 15
Gly Thr Gly Thr Ala Gln Ala Tyr Tyr Thr Gly Ser Pro Tyr Ala Gln
20 25 30
Leu Ala Glu Lys Tyr Gly Phe Ile Val Ile Tyr Pro Gln Ser Pro Tyr
35 40 45
Ser Gly Thr Cys Trp Glu Val Ser Ser Gln Ser Ala Leu Thr His Asn
50 55 60
Gly Gly Gly Asp Ser Asn Ser Ile Ala Asn Met Val Thr Trp Thr Ile
65 70 75 80
Ser Gln Tyr Asn Ala Asp Thr Ser Lys Val Phe Val Thr Gly Ser Ser
85 90 95
Ser Gly Ala Met Met Thr Val Ser Ile Thr Arg Glu Ser Lys Gln Thr
100 105 110
Thr Tyr Ile Leu Thr Arg Thr Thr Glu Arg His Gly Arg His Ile Pro
115 120 125
Arg Thr Phe Arg Arg Arg Asp Ser Leu Leu Arg Arg Pro Arg Arg Leu
130 135 140
Phe Leu Leu Leu Leu Gln Pro Ser Gln Arg Leu Glu Gln Gln Leu Arg
145 150 155 160
Pro Gly Gln Arg His Gln His Pro Arg Gly Leu Gly Arg Tyr Arg Gln
165 170 175
Ser Asn Val Pro Gly Val Tyr Arg Pro Thr Ser Pro His Ala Asp Leu
180 185 190
Pro Arg Gln Arg Gly Tyr His Ser Leu Pro Ala Glu Leu Leu Arg Asn
195 200 205
Leu Gln Ala Val Gly Gly Cys Leu Arg Val Gln Leu
210 215 220

<210> 32884
<211> 121
<212> PRT
<213> A.fumigatus

<400> 32884
Phe Glu Asn Pro Gly Asn Gln Val Gly Glu Asp Lys Thr Gln Pro Ile
1 5 10 15
Gly Leu Asn Val Leu Cys Phe Phe Pro Thr Thr Arg Thr Glu Leu Pro
20 25 30
Ala Pro Leu Asn Asp Ala Met Arg Ala Leu Ser Val Phe Val Ala Leu
35 40 45
Phe Ser Phe Leu Ala Leu Ser Ser Ala Ser Pro Gly Gln Asp Val Ala
50 55 60
Lys Arg Val Thr Ser Gly Ser Leu Gln Gln Val Thr Asn Phe Gly Ser
65 70 75 80
Asn Pro Ser Gly Thr Leu Met Tyr Ile Tyr Val Pro Asn Asn Leu Ala
85 90 95
Thr Lys Pro Gly Ile Val Val Ala Ile His Tyr Cys Arg Cys Ser Thr
100 105 110
Ser His Ala Thr Arg Cys Glu Ser Arg
115 120

<210> 32885
<211> 158
<212> PRT
<213> A.fumigatus

<400> 32885
Pro Glu Arg Gln Asn Val Met Ala Ala Thr Tyr Pro Glu Leu Phe Ala
1 5 10 15
Ala Ala Thr Val Tyr Ser Gly Val Pro Ala Gly Cys Phe Tyr Ser Ser
20 25 30
Ser Asn Gln Val Asn Ala Trp Asn Ser Ser Cys Ala Gln Gly Asn Val
35 40 45
Ile Ser Thr Pro Glu Val Trp Gly Gly Ile Ala Lys Ala Met Tyr Pro
50 55 60
Gly Tyr Thr Gly Pro Arg Pro Arg Met Gln Ile Tyr His Gly Ser Val
65 70 75 80
Asp Thr Thr Leu Tyr Pro Gln Asn Tyr Tyr Glu Thr Cys Lys Gln Trp
85 90 95
Ala Gly Val Phe Gly Tyr Asn Tyr Asn Ser Pro Gln Ser Thr Gln Ser
100 105 110
Asn Thr Pro Gln Ala Lys Tyr Gln Asn Thr Ile Trp Gly Pro Asn Leu
115 120 125
Gln Gly Ile Phe Ala Thr Gly Val Gly His Thr Val Pro Ile His Gly
130 135 140
Glu Gln Asp Met Glu Trp Phe Gly Phe Thr Gly Gly Ser Ser
145 150 155

<210> 32886
<211> 63
<212> PRT
<213> A.fumigatus

<400> 32886
Thr Ser Thr Thr Ile Thr Thr Thr Thr Pro Pro Thr Thr Ser Thr Thr
1 5 10 15
Thr Ser Ser Gly Gly Ser Ser Thr Ser Thr Gly Val Ala Glu His Trp
20 25 30
Gly Gln Cys Gly Gly Asn Gly Trp Thr Gly Pro Thr Ala Cys Ala Ser
35 40 45
Gly Tyr Thr Cys Thr Val Ile Asn Glu Trp Tyr Ser Gln Cys Leu
50 55 60

<210> 32887
<211> 108
<212> PRT
<213> A.fumigatus

<400> 32887
Leu Asp Leu Leu His Ser Leu Asp Phe Tyr Thr Trp Thr Arg Asp Ala
1 5 10 15
Ala Leu Thr Phe Lys Gly Leu Val Asp Ile Phe Ile Gly Gly Asp Thr
20 25 30
Phe Ile Val Val Asn Leu Asp Gly Leu Glu Thr His Ile Gln Asp Tyr
35 40 45
Ile Ser Ser Gln Ala Val Leu Gln Asn Val Ser Asn Pro Ser Gly Arg
50 55 60

```
Leu Ser Asp Gly Ser Gly Leu Gly Glu Pro Lys Phe Glu Val Asn Phe
65                  70                  75                  80
Asn Pro Tyr Ser Gly Gly Trp Gly Arg Pro Gln Arg Asp Gly Pro Ala
                85                  90                  95
Leu Arg Ala Ile Thr Met Leu Thr Tyr Ile Arg His
            100                 105
```

<210> 32888
<211> 62
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (11),(21)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32888

```
Leu Trp Leu Arg Asp Gly Leu Glu Ser Glu Xaa Val Ala Leu Lys Glu
1               5                   10                  15
Ser Asn Ser Phe Xaa Glu Phe Phe Leu Asn Met Tyr Leu Asn Ile Lys
            20                  25                  30
Ser Gln Asn Tyr Ala Ser Leu Asn His Phe Leu Met His Leu Asp Phe
        35                  40                  45
Arg Gly Leu Ile Cys Met Ser Leu Asp Met Tyr Ser Leu Ser
    50                  55                  60
```

<210> 32889
<211> 348
<212> PRT
<213> A.fumigatus

<400> 32889

```
Arg Pro Thr Ser Pro Ser Ser Cys Leu Thr Gln Tyr Val Thr Glu Tyr
1               5                   10                  15
Ile Leu Ser Val Gln Gln Ala Glu Asp His Phe Ala Ala Phe Ile Ser
            20                  25                  30
Val Ala Tyr Met Ala Ile Asp Val Thr Thr Leu Gly Pro Gly Phe Thr
        35                  40                  45
His Gly Pro Gly Leu Gly Phe Pro Ser Arg Thr Gly Leu Arg Pro Glu
    50                  55                  60
Asp Phe Gly Leu Pro Ser Ala Pro Thr Leu Pro Ile Arg Pro Gly Asn
65                  70                  75                  80
Asp Phe Ile Asn Val Leu Asn Lys Leu Arg Ser Gln Val Gly Val Gly
                85                  90                  95
Val Ser Pro Ala Lys Leu Tyr Leu Ala Ile Lys Ser Leu Ser Ala Ser
            100                 105                 110
Asp Thr Ala Thr Leu Thr Ser Gln Phe Leu Ser Leu Lys Pro Leu Ala
        115                 120                 125
Glu His Glu Gln Gly Glu Phe Thr Thr Lys Val Ser Gln Ala Leu Ser
    130                 135                 140
Ser Glu Glu Gly Arg Thr Thr Leu Glu Asp Ala Ala Leu Ala Ala Ala
145                 150                 155                 160
Arg Ala Cys Lys Asp Ile Lys His Gln Phe Ile Glu Leu Arg Leu Ala
                165                 170                 175
Leu Lys Ala Ile Gly Asp Ala Gln Pro Gly Asn Gln Ser Ala Ile Gln
```

```
            180                 185                 190
Gly Leu Gln Glu Arg Leu Gln Lys Cys Glu Lys Val Arg Thr His Phe
        195                 200                 205
Gln Asn Thr Pro Ser Thr Thr Lys Tyr Asn Gln Lys Tyr Asp Gly Val
    210                 215                 220
Ile Glu Lys Cys Lys Glu Leu Ser Met Gln Ile Ser Val Tyr Cys Glu
225                 230                 235                 240
Gln Phe Gln Gly Ser Leu Met Pro Tyr Val Gln Ala Pro Ile Glu Thr
                245                 250                 255
Asn Glu Lys Glu Asp Phe Ile Asn Lys Tyr Ile Lys Val Gly Val Arg
            260                 265                 270
Cys Asp Ile Gly Leu Pro Glu Leu Ile Phe Tyr Lys Lys Met Glu Glu
        275                 280                 285
Phe Gly Asp Leu Ser Lys Lys Ile Glu Glu Glu Leu Asn Ser Leu His
    290                 295                 300
Ser Asn Phe Gly Tyr Leu Met Thr Glu Phe Leu Asn Phe Thr Asn Asn
305                 310                 315                 320
Gln Gln Pro Asp Leu Ala Gly Ser Ile Gln Gln Ile Glu Ser Lys Ile
                325                 330                 335
Gln Glu Leu Asn Lys Arg Leu Cys Gly Leu Lys Ser
            340                 345
```

<210> 32890
<211> 61
<212> PRT
<213> A.fumigatus

<400> 32890

```
Ser Leu His Ala Tyr Arg Pro Ser Ser Thr Phe Ala Ser Ser Thr Phe
1               5                   10                  15
His Cys Tyr Gly Ala Glu Ile Gln Phe Thr Met Glu Lys Val Gln Trp
            20                  25                  30
Leu Asp Phe Lys Thr Thr Gly Asn Leu Asp Gln Met Ile Ser Val Val
        35                  40                  45
Leu Gly His Ile Gly Lys Glu Ile Leu Trp Phe Arg Gly
    50                  55                  60
```

<210> 32891
<211> 190
<212> PRT
<213> A.fumigatus

<400> 32891

```
Lys His Leu Ser Ser Gly Ser Asp Pro Thr Ala Gly Asp Ala Ile Pro
1               5                   10                  15
Asp Glu Cys Ile Ile Val Ala Ser Ser Ile Lys Trp Asp Val Gly Glu
            20                  25                  30
Val Gln Ser Val Arg Leu Ile Glu Leu Gly Val Glu Val Pro Gln Leu
        35                  40                  45
Phe Arg Ser Asn Arg Val Asp Arg Val Cys Gly Val Val Asp Leu Val
    50                  55                  60
Gly Glu Val Gly Arg Gly Gln His Val Ile Val His Lys Gln Pro Asp
65                  70                  75                  80
Leu Gln Val Leu Gly Leu Gly Gln His Arg Asp Ile Val Val Arg Ser
                85                  90                  95
Glu Gln Ser Phe Phe Leu Pro Arg Pro Pro Gly Gln Ser His Thr Val
```

```
            100                 105                 110
Val Asp Pro Val Met Arg Gln Gln Arg Ser Asp Leu Gln Gln Gly Gln
        115                 120                 125
Gly Thr Arg Ser Ile Val Val Asp Ala Arg Ser Phe His His Ala Val
    130                 135                 140
Ala Val Cys Thr Gly His His Ala Ile Val Gly Ile Ser Phe Phe Gly
145                 150                 155                 160
Leu Arg Asn Asp Ile Gly Gly Gly Asp Gly Leu His Arg Gly Ile His
                165                 170                 175
Val Gly Asp Arg Ile Asn Leu Ser Ala Ala Pro Glu Leu Phe
            180                 185                 190

<210> 32892
<211> 464
<212> PRT
<213> A.fumigatus

<400> 32892
Gln Leu His Ser Thr Pro Leu Leu Met Ser Arg Met Val Ala Ser Thr
1               5                   10                  15
Ile His Leu Leu Cys Thr Ala Phe Ala Leu Thr Ala Glu Gly Ala Ala
            20                  25                  30
Leu Gln Leu Pro Leu Phe Gly Ala Ser Glu Pro Gln Ile Pro Val Ala
        35                  40                  45
Gly Lys Glu Leu Ile Ser Ser Ser Ala Leu Gln Ser Gln Ile Asp Val
    50                  55                  60
Gly Lys Leu Leu Asn Arg Ala Lys His Leu Tyr Ser Ile Ala Glu Leu
65                  70                  75                  80
Gly Ser Asp Glu Tyr Asn His Pro Thr Arg Val Ile Gly Ser Lys Gly
                85                  90                  95
Ser Phe Gly Ala Val Trp Arg His Val Ser Gln Gly Arg Leu Thr His
            100                 105                 110
Val Thr Ser Gly His Leu Gly Thr Leu Asp Tyr Ile Tyr Ala Thr Leu
        115                 120                 125
Thr Glu Phe Asp Asp Tyr Tyr Thr Ile Ser Asn Gln Thr Phe Pro Ala
    130                 135                 140
Val Thr Gly Asn Val Met Glu Ser Arg Leu Val Leu Gly His Thr Val
145                 150                 155                 160
Pro Glu Ser Ala Leu Pro Met Gly Leu Thr Pro Pro Thr Lys Asn His
                165                 170                 175
Glu Pro Val Tyr Gly Pro Leu Val Leu Val Ser Arg Leu Gly Cys Glu
            180                 185                 190
Ala Ala Asp Tyr Pro Pro Glu Leu Gln Gly Ala Ile Ala Phe Ile Ser
        195                 200                 205
Arg Gly Ser Cys Pro Phe Gly Thr Lys Ser Ala Leu Ala Gly Lys Ala
    210                 215                 220
Gly Ala Val Ala Ala Val Ile Phe Asn Asn Glu Lys Gly Gly Leu Gly
225                 230                 235                 240
Gly Thr Leu Gly Thr Pro Ser Pro Asp His Val Ala Thr Phe Gly Leu
                245                 250                 255
Ser Asp Ser Asp Ala Ala Pro Phe Leu Glu Gln Leu Arg Arg Gly Arg
            260                 265                 270
Lys Val Asp Ala Ile Ala Tyr Met Asp Ala Thr Val Glu Thr Ile Thr
        275                 280                 285
Thr Thr Asn Ile Ile Ala Gln Thr Lys Glu Gly Asp Ala Asp Asn Cys
    290                 295                 300
```

```
Val Met Ala Gly Ala His Ser Asp Ser Val Met Glu Gly Pro Gly Ile
305                 310                 315                 320
Asn Asp Asp Gly Ser Gly Ser Leu Thr Leu Leu Glu Ile Ala Ser Leu
                325                 330                 335
Leu Pro His Tyr Arg Val Asn Asn Cys Val Arg Leu Ala Trp Trp Ala
            340                 345                 350
Gly Glu Glu Glu Gly Leu Leu Gly Ser Asp Tyr Tyr Val Ser Val Leu
        355                 360                 365
Ser Glu Ala Glu Asn Leu Lys Ile Arg Leu Phe Met Asp Tyr Asp Met
    370                 375                 380
Leu Ala Ser Pro Asn Phe Ala Tyr Gln Val Tyr Asn Ala Thr Asn Ala
385                 390                 395                 400
Val Asn Pro Val Gly Ser Glu Gln Leu Arg Asp Leu Tyr Thr Glu Phe
                405                 410                 415
Tyr Glu Ala His Gly Leu Asn Phe Thr Tyr Ile Pro Phe Asp Gly Arg
            420                 425                 430
Ser Asp Tyr Asp Ala Phe Ile Arg Asn Gly Ile Pro Gly Gly Gly Ile
        435                 440                 445
Ala Thr Gly Ala Glu Val Phe Ser Pro Gly Gly Arg Asp Gln Arg Thr
    450                 455                 460
```

<210> 32893
<211> 191
<212> PRT
<213> A.fumigatus

<400> 32893

```
Asn Glu His Val Ala Ala Thr Met Ala Tyr Val Phe His Ile Asp Asn
1               5                   10                  15
Val Glu Val Pro Ser Leu Glu Phe Arg Gln Ile Ser Glu Ser Ala Ser
            20                  25                  30
Leu Ala Glu Val Glu His Asp Pro Asp Asp Thr Ile Trp Leu Lys Gln
        35                  40                  45
Val Tyr Gly Leu Glu Asp Gly Glu Pro Ile Val Gln Thr Val Gly Arg
    50                  55                  60
Ile Arg Thr Pro Val Gly Arg Val Ile Ile Val Pro Ala Thr Ile Gln
65                  70                  75                  80
His Arg Val Asn His Cys Glu Leu Ile Asp Lys Thr Arg Pro Gly Ser
                85                  90                  95
Val Lys Val Leu Ser Leu Phe Leu Val Asp Pro Asn Ile Arg Ile Ile
            100                 105                 110
Ser Thr Ala Asn Val Pro Pro Gln Arg Leu Asp Trp Ser Phe Asp Asp
        115                 120                 125
Ile Asp Pro Gln Glu Leu Glu Gly Leu Asp Arg Met Leu Gln Gln Leu
    130                 135                 140
Thr Val Arg Phe Ser Glu Arg Lys Asp Ser Leu Pro Ile Ser Leu Asn
145                 150                 155                 160
Glu Ala Arg Lys Leu His Asp Glu Val Phe Trp Glu Arg Phe Gln Phe
                165                 170                 175
Thr Lys Tyr Glu Gln Val Ala Phe Glu Ser Asn Val Val Ile Leu
            180                 185                 190
```

<210> 32894
<211> 302
<212> PRT
<213> A.fumigatus

<400> 32894
Arg Gly Ser Trp Leu Pro Val Glu Asn Thr Met Pro Asp His Val Pro
1 5 10 15
Ser Gly Leu Lys Phe Tyr Asn Pro Gly Ser Asp Tyr Val Gln Arg Asp
20 25 30
Leu Ala Pro Ile Ala Leu Phe Pro Leu Val Tyr Gly Arg Thr Arg Ile
35 40 45
Leu Lys Asp Arg Ile Ile Gly Leu Asp Asp Ala Leu Asp Ser Met Gly
50 55 60
Gln Gly Glu Val Ile Pro Val Pro Pro Glu Thr Ile Thr Arg Glu Asp
65 70 75 80
Ile Ala Trp Arg Val Ala Ala His Ala Asp Ile Glu Ala Lys Pro Phe
85 90 95
Ser Arg Arg Phe Gln Ile Leu Pro Phe Asp Leu Glu Leu Lys Asp Asp
100 105 110
Gly Arg Trp His Ile Ile Ser Tyr Ile Asn Asn Leu His Pro Val Arg
115 120 125
His Arg Asn Ile Tyr Lys Leu Ile Glu Asp Val Phe Asn Met Thr Ile
130 135 140
Pro Gln Trp Asn Ala Ser Leu Thr Pro Leu Lys Asp Met Leu His Ser
145 150 155 160
Arg Ala Arg Leu Glu Tyr Lys Lys Ala Gln Tyr His Pro Ile Ala Lys
165 170 175
Glu Val Glu Glu Gln Ser Pro Gln Pro Lys Pro Ser Glu Ala Glu Val
180 185 190
Asp Tyr Gln Asp Arg Leu Asn Ser Trp Arg Met Glu His Trp Glu Ala
195 200 205
Val Gln Pro Asp Ala Gly Arg Phe Ile Pro Trp Ala Val Pro Pro Trp
210 215 220
Met Met Cys Phe Leu Pro Ala Asp Leu Pro Thr Pro Val Arg Ile Glu
225 230 235 240
Gln Gly Val Glu Leu Asn Arg Asp Tyr Gly Lys Arg Gly Leu Gln Met
245 250 255
Ile Cys Arg Ile Thr Cys Tyr Asp Leu Thr Pro Glu His Pro Tyr Thr
260 265 270
Glu Thr Gly Tyr His Cys Glu Gly Gln Met Val Arg Phe Phe Arg Asn
275 280 285
Cys Thr Ser Ser Ala Ser Leu Leu Leu Ile Val Thr Val Glu
290 295 300

<210> 32895
<211> 88
<212> PRT
<213> A.fumigatus

<400> 32895
Val Ile Phe Ile Tyr Thr Ser Gln Ile Ala Glu Val Arg Asn Tyr Phe
1 5 10 15
Gln Thr Cys Lys Lys Gln Tyr Glu Glu Gln Ala Glu Lys Phe Asn Thr
20 25 30
Ser Lys Leu Pro Ser Asp Val Pro Gly Ser Thr Leu Leu Leu Gly Ala
35 40 45
Met Lys Pro Ala Ser Arg Ala Glu Ile Met Ser Ser Phe Pro Ser Arg
50 55 60
Tyr Thr Ser Asp Met Leu Ile Ala Arg Tyr Phe Asn Ser Tyr Asp Pro

65 70 75 80
Ala Thr Arg Glu Tyr Arg Gln Asn
85

<210> 32896
<211> 274
<212> PRT
<213> A.fumigatus

<400> 32896
Pro Ser Pro Gln Tyr Asn Lys His Trp Glu Asp Pro Ser Gln Ser Cys
1 5 10 15
Ile Val Trp Val Gly Met Leu Phe Ala Met Met Arg Leu Ala Met Leu
20 25 30
Ser Tyr Asn His Glu Gly Asp Glu Pro Pro Glu Phe Arg Gly Lys Ser
35 40 45
Leu Asp Met Ala Gly Ser Phe Arg Asn Leu Val Ala Gln Cys Pro Thr
50 55 60
Leu Ala Asp Tyr Thr Lys Pro Tyr Pro Tyr Leu Ile Glu Thr Phe Ile
65 70 75 80
Phe His Leu His Gly Asp Phe Arg Gln Thr Lys Glu Ala Asp Ile Ser
85 90 95
Val Trp Val Leu Val Gly Val Val Ala Arg Leu Ala Met Arg Met Gly
100 105 110
Tyr His Arg Asp Ser Lys Val Phe Pro Asn Ile Thr Pro Phe Gln Gly
115 120 125
Glu Met Arg Arg Arg Val Trp Thr Phe Val Arg Gln Ser Asp Leu Leu
130 135 140
Phe Ser Phe Gln Val Gly Leu Pro Ser Met Ile Arg Thr Val Asp Ser
145 150 155 160
Asp Thr Glu Leu Pro Arg Asn Leu Tyr Asp Asp Asp Phe Asp Glu Asn
165 170 175
Cys Lys Glu Leu Pro Pro Ser Arg Pro Ala Asn Glu Pro Thr Pro Ile
180 185 190
Ser Tyr Leu Ile Ala Lys Ala Arg Leu Ala Tyr Val Phe Gly Arg Val
195 200 205
Thr Glu Leu Thr Ser Ser Val Gln Ser Glu Ser Tyr Asp Lys Val Met
210 215 220
Glu Leu Asp Ala Glu Leu Arg Arg Ala Arg Asp Leu Ile Pro Glu His
225 230 235 240
Leu Val Ile Arg Pro Phe Glu Glu Cys Gln Leu Asp Pro Ser Asn Leu
245 250 255
Ile Met Ser Arg Phe Gly Val Arg Gln Ser Leu Ala Ser His Lys Arg
260 265 270
Glu Leu

<210> 32897
<211> 133
<212> PRT
<213> A.fumigatus

<400> 32897
Tyr Ala Ala Glu Leu Gly Leu Gly Thr Leu Ala Pro Phe Phe Ile Pro
1 5 10 15
Leu Thr Pro Leu Gly Ile Thr Asn Thr Gly Glu Gln Asp Ser Trp Asp

```
            20                  25                  30
Thr Tyr Ile Gln Ser Ser Asn Leu Asp Ile Pro Asn Gln Trp Trp Pro
        35                  40                  45
Thr Phe Asp Gly Gln Gln Gln Gln Pro Ser Pro Gln Pro Ser Leu His
    50                  55                  60
Pro Ser Leu Gln Ala Gln Gly Ser Leu Ser Ser Thr Gln Leu Ser Ser
65                  70                  75                  80
Met Gln Gln Gly Asn Thr Val Asp Asn Met Arg Ser Leu Pro Arg Phe
                85                  90                  95
Ser Asn Val Phe Ser Ser Asp Pro Val Lys Tyr Glu Gly Leu Gly Ile
            100                 105                 110
Asn Gly Pro Tyr Asp Asn Asn Ser Pro Gln Lys Ser Asn Asn Ala Ser
        115                 120                 125
Gly Glu Gly Thr Leu
    130
```

<210> 32898
<211> 124
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (49)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32898

```
Ala Ser Ser Ser Pro Asp Asp Met Gln Asn Arg Ile Asp Arg Leu Glu
1               5                   10                  15
Ser Leu Val Leu Ser Leu Met Thr Asn Gly Ser Gln Ser Ala Gly Pro
            20                  25                  30
Ala Ala Ala Met Ala Ala Ile Ser Gly Thr Ser Ser Ser Gly Gly Ser
        35                  40                  45
Xaa Asn Gln Thr His Asp Ile Asp Leu Asp Glu Glu Thr Ser Asn Ala
    50                  55                  60
Pro Glu Glu Ser Asp Thr Glu Gln Val Thr Lys Ser Phe Gly Ile Met
65                  70                  75                  80
Lys Val Asp Asn Asn Lys Ser Tyr Tyr Ile Ser Asp Ala His Trp Ala
                85                  90                  95
Ser Leu Leu Asn Asp Val Ser Gln His Leu Thr Met Arg Leu Met Ser
            100                 105                 110
Tyr Leu Tyr Leu His Phe Thr Asp Arg Arg Ser Pro
        115                 120
```

<210> 32899
<211> 328
<212> PRT
<213> A.fumigatus

<400> 32899

```
Ser Val Val Ala Pro Gln Phe Pro Thr Asn Phe Ser Ile Leu Arg Leu
1               5                   10                  15
Arg Ala Ile Thr Glu Pro Arg Ser Ile Leu Gly Ser Ala Asn Pro Leu
            20                  25                  30
Arg Met Ala Lys Gln Leu Arg Val Ser Leu Thr Thr Thr Leu Thr Leu
        35                  40                  45
```

```
Leu Glu Gln Leu Gln Ala Ala Leu Ser Ala Pro Ala Glu Asp Pro Lys
    50                  55                  60
Pro Ala Glu Leu Ser Gly Lys Asp Ala Leu Pro Leu Leu Ser Thr Ser
65                  70                  75                  80
Ala Thr Ala Leu Lys Ser Gln Val Thr Lys Leu Ser Leu Leu Thr Ile
                85                  90                  95
Thr Ser Pro Phe Thr His Ser Ala Val Gly Thr Val Leu Ser Ala Leu
            100                 105                 110
Asn Ser Ser Val Leu Pro Ser Leu Val Thr Gly Ala Leu Leu Val Thr
        115                 120                 125
Pro Ala Asp His Thr Lys Ala Phe His Ala Glu Val His Ala Leu Thr
    130                 135                 140
Lys Thr Thr Leu Arg Glu Leu Thr Ser Leu Val Thr Glu Val Gln Ala
145                 150                 155                 160
Val Ala Glu Lys Ala Asp Lys Ala Lys Glu Gly Gln Arg Lys Gly Gly
                165                 170                 175
Lys Leu Leu Gln Ala Glu Lys Asp Pro Val Thr Val Ala Thr Gly Arg
            180                 185                 190
Val Trp Asp Ser Cys Asp Ala Leu Ile Asp Val Ala Ala Lys Gly Val
        195                 200                 205
Val Gly Phe Val Ile Arg Arg Val Glu Glu Trp Arg Asp Leu Val Arg
    210                 215                 220
Asp Ala Val Glu Glu Ile Glu Glu Trp Asp Pro Glu Glu Asp Gly Asp
225                 230                 235                 240
Glu Phe Phe Asp Asp Leu Leu Ser Asp Asp Gly Glu Lys Asp Thr Gln
                245                 250                 255
Asp Glu Glu Asp Glu Asp Thr Glu Glu Ser Ser Ala Thr Leu His Ala
            260                 265                 270
Gln Lys Lys Ser Thr Leu Arg Ile Leu Lys Pro Ile Ala Gln Ile Tyr
        275                 280                 285
Pro Ala Ile Val Ala Asn Arg Leu Lys Gly Ala Gly Asp Val Pro Cys
    290                 295                 300
Ser Ser Pro Ser Gly Ile Gly Arg Leu Arg Thr Leu Asp Asp Glu Leu
305                 310                 315                 320
Thr Thr His Pro Gly Ala Tyr Arg
                325
```

<210> 32900
<211> 107
<212> PRT
<213> A.fumigatus

<400> 32900

```
Arg Ala Leu Ala Met Cys Arg Ala His Leu Leu Leu Gly Leu Val Asp
1               5                   10                  15
Cys Glu Arg Leu Met Thr Asn Leu Gln His Ile Pro Glu His Ile Asp
            20                  25                  30
Glu Val Ala Gly Ala Leu Tyr Glu Glu Asp Leu Gly Lys Cys Ala Gln
        35                  40                  45
Tyr Leu Asp Lys Ala Lys His Cys Ala Met Asn Ala Val Asp Ser Val
    50                  55                  60
Lys Pro Thr Trp Asp Thr Val Asp Ala Thr Asp Gly Gln Gln Lys Glu
65                  70                  75                  80
Asp Lys Phe Ala Ile Trp Ser Lys Thr Trp Met Asn Val Leu Asp Glu
                85                  90                  95
Val Ser Lys Ser Val Glu Ala Asp Asn Gln Glu
```

100 105

<210> 32901
<211> 167
<212> PRT
<213> A.fumigatus

<400> 32901
Ala Arg Pro Gln Leu Pro Ile Ile Ser Asn Met Val Ala Thr Phe Ser
1 5 10 15
Pro His Arg Asp Ala Gly Gly Thr Leu His Leu Pro Ser His Ser Gly
20 25 30
Ile His His Val Asp Ala Gly Ser Ala Ile Arg Gln Leu Arg Arg Ser
35 40 45
Leu Ser Arg Ser Pro Ser Lys Ser Ser Asn Phe Thr Ile Leu Ala Ser
50 55 60
Arg Ser His Ser Pro Ser Lys Ser Thr Pro Phe Ile Ser Ser Pro Leu
65 70 75 80
Ser Pro Ser Arg Arg Ser Thr Gln Asn Asn Phe Val Leu Phe Pro Ser
85 90 95
Ser Ser His Pro Ser Pro Phe Ala Leu Pro Tyr Gln Thr Ser Ala Lys
100 105 110
Ile Thr Arg Pro Val Val Arg Arg Ala Arg Thr Ser Pro Arg Ser Pro
115 120 125
Val Lys Arg Ala Leu Asn Ile Ser Thr Asp Gln Gly Asn Ala Lys Pro
130 135 140
Ala Gln Pro Ala Pro Ile Met Ala Leu Ser Pro Val Gly Ala Glu Asn
145 150 155 160
Thr Pro Ala Ala Pro Ser Ala
165

<210> 32902
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32902
Thr Val Phe Pro Glu Leu Ile Asp His Ala Gly Lys Ser Ser Leu Thr
1 5 10 15
Val Arg Phe Val Glu His His Phe Val Glu Ser Tyr Tyr Pro Thr Ile
20 25 30
Glu Asn Thr Phe Ser Arg Ile Ile Lys Tyr Asn Gly Gln Asp Phe Ala
35 40 45
Thr Glu Ile Val Asp Thr Ala Gly Gln Val Ser Ile
50 55 60

<210> 32903
<211> 83
<212> PRT
<213> A.fumigatus

<400> 32903
Ile Ser Ser Phe Ile Ile Phe Ser Thr Gly Leu Phe Leu Val Ile Pro
1 5 10 15
Leu Ile Ile Asp Leu Lys Met Leu Asp Leu Ala Asp Phe Val Ser Asp
20 25 30

```
Arg Gly Gly Asn Pro Asn Lys Ile Lys Glu Ser Gln Arg Lys Arg Phe
        35                  40                  45
Ala Pro Glu Asn Val Val Asp Glu Val Ile Ala Leu Tyr Glu Glu Ala
    50                  55                  60
Arg Arg Gly Ile His Ile Ser Val Phe Asp His Gly Leu Glu Arg Ser
65                  70                  75                  80
Arg Ala Pro
```

<210> 32904
<211> 97
<212> PRT
<213> A.fumigatus

<400> 32904

```
Ala Phe Gly Arg Leu Pro Val Trp Leu Tyr Phe Ser Met Leu Ile Glu
1               5                   10                  15
Glu Gln Gly Ala Asp His Val Pro Leu Val Val Val Gly Asn Lys Ser
            20                  25                  30
Asp Leu Lys Ser Glu Gln Arg Gln Val Ser Leu Asp Glu Gly Arg Gln
        35                  40                  45
Leu Gly Glu Glu Phe Gln Cys Ala Phe Thr Glu Ala Ser Ala Arg Leu
    50                  55                  60
Asp Tyr Asn Val Thr Lys Ala Phe Asp Leu Met Ile Gly Glu Ile Glu
65                  70                  75                  80
Lys Ser Gln Asn Pro Ser Gln Pro Ala Gly Gly Ser Lys Cys Ile Leu
                85                  90                  95
Met
```

<210> 32905
<211> 78
<212> PRT
<213> A.fumigatus

<400> 32905

```
Ser Val Leu Phe Val Leu Lys Leu Met Gly Asp Ser Met Pro Thr Asp
1               5                   10                  15
Ser Gly Ser Leu Trp Ser Leu Ser Ile Asp Gly Ala Asn Ser Thr Asn
            20                  25                  30
Lys Pro Lys Ser Arg Asp Leu Gly Ser Arg Val Arg Cys Ile Asp Val
        35                  40                  45
Ser Ser Pro Ala Ser Gln Pro Met Cys Gln Gly Leu His Val Thr Leu
    50                  55                  60
Asp Tyr Thr Tyr Ile Gln Pro Gly Val Val Leu Glu Pro Ser
65                  70                  75
```

<210> 32906
<211> 70
<212> PRT
<213> A.fumigatus

<400> 32906

```
Ser His Pro Ser Ala Leu Leu Ala Gln Val Ala Arg Lys Leu Ala Arg
1               5                   10                  15
Val His Pro Leu Gln Phe Asn Val Gln Lys Val Tyr Asn Lys Thr Gly
```

```
            20                  25                  30
Lys Lys Leu Lys Val Asn Pro Asp Arg Asp Thr Glu Thr Pro Ile Ala
        35                  40                  45
Met Leu Ile Tyr Gln Ile Asn Val Cys Lys Ser Ala Arg His Leu Asp
    50                  55                  60
Thr Arg Ala Gln Gly Thr
65                  70
```

<210> 32907
<211> 206
<212> PRT
<213> A.fumigatus

<400> 32907

```
Glu Arg Phe Leu Gly His Gly Gln Pro Cys Val Ile Gln Gly Asn Trp
1               5                   10                  15
Ser Arg Ala Gly Ala Lys Val Ser Arg Ser Ile Gly Leu Asn Leu Lys
            20                  25                  30
Leu Glu Glu Glu Arg Arg Lys Asp His Val Arg Arg Thr Ser Gly Glu
        35                  40                  45
Ser Lys Lys Asp Lys Glu Ser Gly Leu Phe Ser Ser Ile Phe Gly Gly
    50                  55                  60
Gly Arg Lys Lys Asn Ser Gly Asp Gly His His Lys Lys Asn Ser Ser
65                  70                  75                  80
Arg Thr Leu Ser Pro Asp Pro Pro Val Arg Glu Leu Arg Pro Asp Val
                85                  90                  95
Asp Tyr Pro Trp Thr Arg Phe Ser Ile Leu Glu Glu Arg Ala Ile Tyr
            100                 105                 110
Arg Met Ala His Ile Lys Leu Ala Asn Pro Arg Arg Ala Leu Tyr Ser
        115                 120                 125
Gln Val Leu Leu Ser Asn Phe Met Tyr Ser Tyr Leu Ala Lys Val Gln
    130                 135                 140
Gln Met His Pro His Met Leu Met Ala Ser Ser Ala Ser Gln Lys Gln
145                 150                 155                 160
Gln Thr Ser Arg Asp Gln Asn Asp Glu Tyr Ser Gln Tyr Gln Lys Tyr
                165                 170                 175
Gln Glu Val Ser Arg Leu Ser Val Leu Gln Val Val Leu Gly Ala Val
            180                 185                 190
Ile Leu Thr Gln Asn Thr Val Ser Ala Gly Ala Val Gln Arg
        195                 200                 205
```

<210> 32908
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32908

```
Leu Gly Lys Val Ala Val Cys Tyr Leu Leu Ala Cys Pro Gln Gly Phe
1               5                   10                  15
His Cys Pro Ser Ser Asp Phe Leu Phe Met Ala His Phe Val Phe Asp
            20                  25                  30
Thr Leu Ala Ala Trp His Leu Lys Cys Leu Ile Val Met Phe Leu Val
        35                  40                  45
Leu Trp Tyr Leu Ser Ala Trp His Ser Cys Thr His
    50                  55                  60
```

<210> 32909
<211> 72
<212> PRT
<213> A.fumigatus

<400> 32909
Pro Arg Ile Gln Ser Gln Gln Glu Gln Tyr Ser Asp Ser Ser Tyr Asp
1 5 10 15
Asp Pro Gln Met Tyr Glu Tyr Gly Asp Asp Gln Arg Asp Asn Tyr Arg
20 25 30
Pro His Ser Arg Gly Ser Lys Tyr Glu Asn Gly Asn Val Tyr Gly Pro
35 40 45
Gly His Arg Gln Tyr Gly His Ser Thr Phe Gly Asp Asp Val Gln Leu
50 55 60
Asp Asp Asp Asp Asp Asp Met Trp
65 70

<210> 32910
<211> 64
<212> PRT
<213> A.fumigatus

<400> 32910
Ser Leu Tyr Leu Phe Pro Met Phe Trp Ser Pro Ser Val Asn Leu Ser
1 5 10 15
Leu Pro Ile Tyr Leu Val Cys Cys Ala Lys Ser Ala Gly Ser Leu Tyr
20 25 30
Leu Thr Arg Glu Ser Gly Ser Met Leu Pro Ala Gly Leu Ser Ser Gly
35 40 45
Ile Pro Leu Pro Val Leu Gly Phe Ser Phe Tyr Gly Ala Phe Arg Leu
50 55 60

<210> 32911
<211> 69
<212> PRT
<213> A.fumigatus

<400> 32911
Lys Arg Leu Gly Leu Ser Asn Ser Pro Arg Thr Leu Leu Lys Ser Leu
1 5 10 15
Ile Asn Ser Tyr Arg Thr Leu Leu Lys Ser Trp Met Asn Ser Pro Arg
20 25 30
Ala Leu Ser Lys Ser Leu Met Asn Asn Ala Ile Thr Thr Leu Asn Ala
35 40 45
Lys Val Asn Thr Val Leu Phe Gln Arg Thr Tyr Leu Asp Glu Ile Ile
50 55 60
Ala Phe Phe Ser Leu
65

<210> 32912
<211> 113
<212> PRT
<213> A.fumigatus

<400> 32912
Leu Ile Leu Ala Leu Ala His Gly Thr Phe Ile Phe Ala His Ala Pro

```
1               5                   10                  15
Val Tyr Gly Trp Tyr Leu Ala Ser Ser Ala Ile Gly Leu Ile Ile Ser
            20                  25                  30
Trp Ser Leu His Asn Val Val Ala Trp Met Lys Asn Arg Pro Phe Met
        35                  40                  45
Gly Arg Lys Leu Ser Leu Phe Tyr Ile Gly Thr Ile Ile Leu Val Gln
    50                  55                  60
Pro Tyr Trp Val Ala Glu Ile Tyr Ala Asn Phe Ala Tyr Phe Asn Asp
65                  70                  75                  80
Ile Asn Arg Thr Val Tyr Glu Lys Ile Arg Pro Trp Glu Ala Leu Phe
                85                  90                  95
Arg Tyr Asp Ala Ala Leu Met Val His Leu Val Phe Ile Ala Glu Gly
            100                 105                 110
Cys
```

<210> 32913
<211> 60
<212> PRT
<213> A.fumigatus

<400> 32913

```
Thr Asp Ile Val Cys Ser Tyr Gln Pro Leu Ser Thr Arg Ser Ser Gly
1               5                   10                  15
Met Thr Ser Val Cys Asp Glu Cys Arg Leu Arg Arg Arg Arg Cys Asp
            20                  25                  30
Arg Ile Arg Pro Lys Cys Thr Ser Cys Val Asn Gln Gly Val Ala Cys
        35                  40                  45
Val Tyr Arg Gln Ala Thr Glu Ser Pro Pro Ser Gln
    50                  55                  60
```

<210> 32914
<211> 65
<212> PRT
<213> A.fumigatus

<400> 32914

```
Lys Ile Ile Pro Met Pro Leu Cys Pro Cys Pro Asn Phe Leu Lys Pro
1               5                   10                  15
Thr Arg Ser Trp Asn Thr Cys Pro Ser Ile Pro Ser Met Thr Ile Leu
            20                  25                  30
Tyr Leu Val Cys Val Phe Leu Ser Leu Gly Asp Lys Pro Ser Ile Ser
        35                  40                  45
Asp Ala Thr Ile Met Phe Lys Arg Ala Ser Ser Arg Gln Lys Ile Asp
    50                  55                  60
Arg
65
```

<210> 32915
<211> 63
<212> PRT
<213> A.fumigatus

<400> 32915

```
Ser Asp Tyr Ser Tyr Glu Ala Thr Val Val Phe Lys Ile Tyr Arg Thr
1               5                   10                  15
```

```
Thr Arg Gln Ser Ile Asp Asn Glu Ala Gln Tyr Pro Thr Trp Asp Ile
            20                  25                  30
Tyr Ile Lys Leu Arg Thr Ala Gly Ser Tyr Asp Leu Tyr Lys Tyr Pro
        35                  40                  45
Ala Asp Ile Cys Ser Ser Thr Glu Phe Asp Thr Leu Lys Leu Ser
    50                  55                  60
```

<210> 32916
<211> 316
<212> PRT
<213> A.fumigatus

<400> 32916

```
Arg Ser Cys Ser Leu Pro Met Ile Leu Leu Ala Ser Ser Arg Arg Ala
1               5                   10                  15
Cys Ser Leu Ala Cys Ser Ser Leu Gln Pro Val Ala Arg Asp Arg Ser
            20                  25                  30
Leu Ser Phe Ala Thr Ser Thr Ala Thr Trp Ser Arg His Leu Pro Asp
        35                  40                  45
Ser Leu Phe Ser Leu Ser Ser Gln Arg Leu Ser Ser Ser Tyr Leu Pro
    50                  55                  60
Arg Phe Ser Arg Arg Thr Phe His Ala Thr Ser Leu Phe Ser Leu Asp
65                  70                  75                  80
Ala Pro Arg Ile Ser Tyr Arg Val Ala Ala Ser Ser Ser Pro Lys Asn
                85                  90                  95
Arg Arg Phe His Pro Pro Thr Asn Phe His Asn Phe Gln Pro Glu Leu
            100                 105                 110
His Asp Ala Ile Gly Val Val Thr Glu Glu Ile Asp Ala Ala Thr Arg
        115                 120                 125
Arg Lys Arg Arg Pro Asp Ser Gly Glu Asp Ala Phe Phe Val Ser Arg
    130                 135                 140
Val Gly Ser Gln Asp Ser Gly Ala Ile Ala Phe Ala Val Ala Asp Gly
145                 150                 155                 160
Val Gly Gly Trp Val Glu Ser Lys Val Asp Pro Ala Asn Phe Ser His
                165                 170                 175
Ala Leu Cys Leu Tyr Met Ala Leu Glu Ala Leu Ser Trp Asp Ser Ser
            180                 185                 190
Thr Asp Lys Leu Arg Ala Lys Asn Leu Leu Gln Ser Gly Tyr Asp Gln
        195                 200                 205
Leu Val Ala Asp Lys Ser Ile Arg Ala Gly Gly Ser Thr Ala Ser Val
    210                 215                 220
Gly Val Gly Leu Glu Asp Gly Gln Val Glu Leu Ala Asn Leu Gly Asp
225                 230                 235                 240
Ser Gly Ser Met Leu Leu Arg Leu Ala Ala Val His His Tyr Ser Val
                245                 250                 255
Pro Gln Thr His Gly Phe Asn Thr Pro Tyr Gln Leu Ser Ile Ile Pro
            260                 265                 270
Pro Arg Met Arg Ala Gln Ala Ser Ile Phe Gly Gly Ser Phe Leu Glu
        275                 280                 285
Glu Ser Pro Arg Asp Ala Val Val Pro Asn Leu His Met Gln His Arg
    290                 295                 300
Arg Arg Ala His Ala Thr Asp Arg Trp Arg Leu Arg
305                 310                 315
```

<210> 32917
<211> 111

<212> PRT
<213> A.fumigatus

<400> 32917
Arg Leu Glu Arg His Ile Lys Ala Gln Ser Val Arg Glu Val Cys Trp
1 5 10 15
Val Asp Leu Gly Leu His Pro Ala Ser Asn Ser Val Arg Asp Cys Glu
20 25 30
Gly Asp Gly Ala Gly Val Leu Thr Ser Asn Ser Ala His Lys Glu Gly
35 40 45
Ile Phe Pro Thr Ile Trp Pro Pro Leu Ala Ser Gly Gly Gly Val Asn
50 55 60
Phe Phe Cys Asp His Ala Asp Ser Ile Val Lys Leu Gly Leu Glu Ile
65 70 75 80
Val Glu Ile Gly Gly Arg Val Glu Thr Ala Ile Leu Gly Arg Arg Arg
85 90 95
Gly Gly His Thr Val Gly Asp Ala Trp Ser Ile Glu Thr Glu Gln
100 105 110

<210> 32918
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32918
Asn Arg Glu Trp Ile Arg Phe Asn Pro Ile Gln Ala Pro Pro Ser Ser
1 5 10 15
Phe Asn Pro His Ser Ala Leu Phe Phe Ala Ser Thr Thr Gln Gln Val
20 25 30
Thr Gly Asp Arg Asp Gly Leu Thr Lys Arg Arg Leu Pro Pro Gly Arg
35 40 45
Ser Ser Asp Phe Leu Phe Asp Ser Phe Leu Phe Leu Pro Ser Leu Gly
50 55 60
Arg Val Phe Leu Leu Leu Leu Phe Phe
65 70

<210> 32919
<211> 287
<212> PRT
<213> A.fumigatus

<400> 32919
His Glu Gly Pro Pro His Phe Leu Pro Glu His Ser Ala Lys Gly Asn
1 5 10 15
Phe Leu Asp Trp Ala Ser Leu Ser Pro Thr Gly Leu Ala Leu Pro Pro
20 25 30
Gly Asp Ser Thr Thr His Glu Pro Val Leu Leu Ser Asp Glu Asp Leu
35 40 45
His Val Leu Asp Pro Ala Phe Leu Ser Lys His Thr Asp Thr Ser Ile
50 55 60
Asp Asn Asn Asn Arg Pro Pro Tyr Asp Gln Arg Pro Gln Leu Asn Pro
65 70 75 80
Ala Ser Thr Asn Gln Gly Ala Ser Asn Leu His Ser Ala Arg Pro Ser
85 90 95
Arg Ser Ser Ile Thr Ser Ile Ser Ser Thr Thr Ser Thr Ser Thr Ser
100 105 110

```
Ala Thr Thr Gly Ser Asp Ile Thr Ser Pro Lys Lys Ala Ser Lys Ser
        115                 120                 125
Ser Lys Arg Asn Ser Lys Pro Lys Val Tyr Asp Lys Asn Asp Pro Arg
    130                 135                 140
Arg Glu Arg Tyr Leu Glu Arg Asn Arg Arg Ala Ala Ser Lys Cys Arg
145                 150                 155                 160
Arg Gln Lys Lys Glu Arg Asn Gln Gln Leu Glu Asn Leu Tyr Arg Lys
                165                 170                 175
Gln Ser Ala Glu Gln Glu Arg Leu Leu Ser Glu Arg Asp Arg Met Arg
            180                 185                 190
Ser Glu Leu Leu Ser Leu Lys Asp Glu Leu Leu Lys His Ala Gln Cys
        195                 200                 205
Glu Asp Pro Pro Leu Lys Phe Tyr Ile Ala Gln Met Val Glu Glu Ala
    210                 215                 220
Gly Ala Ala Val Ala Pro Gly Arg Pro Ile Asn Thr Tyr Ser Pro Gly
225                 230                 235                 240
Tyr Ser Glu Gln Gln Ala Gln Pro Leu Met Phe Asn Asp Asp Asp Val
                245                 250                 255
Leu Gln Gln Arg Ser Pro Thr Met Lys Met Ser Met Val Ala Asp Ala
            260                 265                 270
Pro Trp Ser Thr Ser Gly Gly Asp Phe Val Asp Phe Val Gln Leu
        275                 280                 285
```

<210> 32920
<211> 76
<212> PRT
<213> A.fumigatus

<400> 32920

```
Phe Cys Gly Phe Cys Ser Ile Val Ile Asn Phe Ile Thr Pro Pro Arg
1               5                   10                  15
Lys Leu Phe Ser Trp Ser Trp Ile Leu Ala Cys Ile Glu Tyr Val Tyr
            20                  25                  30
Leu Lys Leu Asn Ser Arg Val Glu Thr Thr Leu Tyr Lys Gln Lys Phe
        35                  40                  45
Met Ala Val Gln Arg Glu Ala Ala Ser Val Cys Tyr Ser Arg Pro Pro
    50                  55                  60
Ser Gln Gln Ser Thr Tyr Val Ser Arg Arg Ser Glu
65                  70                  75
```

<210> 32921
<211> 291
<212> PRT
<213> A.fumigatus

<400> 32921

```
Tyr Arg Ala Glu Arg Leu Asp Arg Ala Asp Phe Cys His Leu Cys Phe
1               5                   10                  15
Ala Glu Tyr Val Asp Asp Thr Leu Arg Ile Ala Leu Thr Leu Ala Gly
            20                  25                  30
Ser Asp Ala Thr Ala His Met Ser Glu Glu Val Lys Asp Ala Gly Arg
        35                  40                  45
Tyr Val Pro Ile Ala Ile Ala Trp Gly Tyr Phe Ser Asn Gly Val Met
    50                  55                  60
Ala Ile Val Val Val Ile Ser Phe Leu Phe Ala Ile Pro Ser Val Glu
65                  70                  75                  80
```

```
Asp Ala Leu Asp Asp Ala Thr Gly Phe Pro Phe Ile Tyr Val Phe Lys
                85                  90                  95
Asn Ala Thr Ser Val Ala Gly Val Asn Gly Leu Thr Ala Ile Ile Leu
            100                 105                 110
Ile Pro Val Ile Phe Ser Asn Ile Leu Phe Asn Ala Ser Thr Ser Arg
        115                 120                 125
Gln Thr Phe Ala Phe Ala Arg Asp Lys Gly Leu Pro Phe Ala Arg Trp
    130                 135                 140
Ile Ala Lys Val Asp Pro Arg Arg Lys Ile Pro Val Asn Ala Ile Ala
145                 150                 155                 160
Leu Ser Cys Ile Ile Ser Cys Leu Leu Ser Leu Ile Asn Ile Gly Ser
                165                 170                 175
Leu Thr Ala Phe Asn Ala Ile Ile Ser Leu Asn Val Ala Ala Leu Met
            180                 185                 190
Tyr Thr Tyr Ile Ile Ser Ile Ser Cys Ile Ile Tyr Arg Lys Ile Trp
        195                 200                 205
His Pro Asp Thr Leu Pro Pro Arg Arg Trp Asp Leu Gly Arg Trp Gly
    210                 215                 220
Leu Thr Val Asn Ile Val Gly Leu Leu Tyr Cys Met Phe Ala Leu Phe
225                 230                 235                 240
Trp Ala Leu Trp Pro Ser Glu Thr Pro Val Thr Val Asp Asn Phe Asn
                245                 250                 255
Trp Ser Val Val Ile Phe Gly Val Val Phe Val Leu Ser Leu Val Met
            260                 265                 270
Tyr Ala Val Lys Gly Arg Arg Glu Tyr His Gly Pro Val Val Ile Val
        275                 280                 285
Arg Arg Asp
    290
```

<210> 32922
<211> 166
<212> PRT
<213> A.fumigatus

<400> 32922

```
Pro Glu Arg Ala Pro Thr Ser Gly Gly Gln Tyr His Trp Val Ser Glu
1               5                   10                  15
Phe Ala Ser Pro Arg Tyr Gln Lys Phe Leu Ser Tyr Leu Thr Gly Trp
            20                  25                  30
Met Ser Val Leu Ala Trp Gln Ala Gly Ser Ala Ser Gly Ser Phe Leu
        35                  40                  45
Thr Gly Thr Ile Ile Gln Gly Leu Ile Ser Val Arg Tyr Pro Asp Tyr
    50                  55                  60
Gln Pro Glu Arg Trp Gln Gly Thr Leu Phe Val Phe Ala Met Ile Val
65                  70                  75                  80
Val Ile Tyr Val Phe Asn Val Tyr Ala Ala Asp Met Met Pro Leu Phe
                85                  90                  95
Asn Asn Leu Leu Met Ile Leu His Ile Leu Ser Trp Thr Val Val Val
            100                 105                 110
Ile Val Leu Trp Ala Met Ala Pro His Gln Ser Ala Lys Ala Val Phe
        115                 120                 125
Thr Glu Trp Thr Asn Gly Gly Gly Trp Ser Ser Ile Gly Leu Ser Ala
    130                 135                 140
Leu Ile Gly Gln Ile Ser Ala Ile Tyr Ala Ser Leu Ser Met Leu Met
145                 150                 155                 160
Thr Arg Cys Glu Leu Arg
```

165

<210> 32923
<211> 68
<212> PRT
<213> A.fumigatus

<400> 32923
Cys Leu Ile Leu Tyr Leu Gln Thr Arg Cys Arg Arg Ala Pro Lys Tyr
1 5 10 15
Gly Leu Gln Ser Arg Ile Leu Thr Tyr His Pro Tyr Val Ser Met His
20 25 30
Gln Asp Gln Asp Ala Gly Ser Tyr Arg Pro Val Ile Ile Tyr Asn Arg
35 40 45
Gly Gln Met Glu Arg Val Met Arg Gln Tyr Arg Glu Phe Val Leu Leu
50 55 60
Tyr Thr Asp Asn
65

<210> 32924
<211> 167
<212> PRT
<213> A.fumigatus

<400> 32924
Ile Met Pro Leu Ser Gln Ile Thr Pro Cys Leu Trp Phe Asp Gly Gln
1 5 10 15
Ala Glu Glu Ala Ala Arg Phe Tyr Val Ser Ile Phe Pro Asn Ser Lys
20 25 30
Ile Thr Ala Ile Gln Arg Tyr Thr Glu Ala Gly Lys Val Tyr His Gly
35 40 45
Arg Glu Ala Gly Ser Val Met Val Val Glu Phe Glu Leu Asn Gly Gln
50 55 60
Thr Phe Thr Gly Leu Asn Gly Gly Pro Gln Phe Lys Phe Thr Gly Ala
65 70 75 80
Ile Ser Phe Gln Val Asp Cys Glu Asp Gln Asp Glu Val Asp His Tyr
85 90 95
Trp Asn His Leu Lys Asp Gly Gly Asp Glu Thr Lys Gln Gln Cys Gly
100 105 110
Trp Val Thr Asp Lys Phe Gly Leu Thr Trp Gln Ile Ile Pro Arg Arg
115 120 125
Leu Lys Glu Met Leu Ser Asp Ser Asp Leu Glu Arg Lys Ser Arg Val
130 135 140
Thr Asn Glu Met Ile Lys Met Lys Lys Leu Asp Val Gly Leu Leu Glu
145 150 155 160
Lys Ala Tyr Glu Gly Ala Leu
165

<210> 32925
<211> 137
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (82)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32925

```
Cys Pro Asn Val Gly Pro Gly Pro Asn Thr Thr Thr Asp Arg Leu Gln
1               5                  10                  15
Thr Gly Tyr Pro Asp Gln Ser Ile Asn Lys Thr Ser Ser Tyr Leu Asp
            20                  25                  30
Leu Ser Thr Leu Tyr Gly Asp Asn Gln Asp Glu Gln Asn Met Ile Arg
        35                  40                  45
Thr Phe Glu Asp Gly Lys Ile Lys Pro Asp Cys Phe Ala Glu Pro Arg
    50                  55                  60
Leu His Ile Leu Pro Ala Ala Ser Gly Val Ile Leu Ile Met Leu Asn
65                  70                  75                  80
Arg Xaa His Asn Tyr Val Ala Glu Gln Leu Ala Ile Ile Asn Glu Asn
                85                  90                  95
Gly Arg Phe Thr Lys Pro Lys Ala Glu Ile Ile Glu Pro Val Glu Ala
            100                 105                 110
Gly Leu Ala Val Leu Asn Met Asn Thr Asn Ser Ser Lys Leu His Ala
        115                 120                 125
Pro Ser Leu Ala Ala Cys Ile Ser Thr
    130                 135
```

<210> 32926
<211> 199
<212> PRT
<213> A.fumigatus

<400> 32926

```
Pro Ile Leu His Ser Glu Arg Arg Val Ala Phe Glu Leu Ser Ser Lys
1               5                  10                  15
Leu Thr Gly Asn Gln Lys Glu Phe Asn Ala Arg Asn Leu Thr Asn Trp
            20                  25                  30
Gly Phe Ser Glu Ala Lys Tyr Asn Leu Glu Ile Asn Gln Gly Cys Ser
        35                  40                  45
Phe Tyr Arg Leu Ala Leu Arg Ala Phe Pro Lys Trp Phe Lys Tyr Asp
    50                  55                  60
Ser Ile Tyr Ala His Tyr Pro Met Thr Ile Pro Ser Glu Asn Arg Val
65                  70                  75                  80
Ile Met Lys Ala Leu Gly Arg Glu Glu Asp Phe Ser Trp Asp Arg Pro
                85                  90                  95
Ser Tyr Ile Pro Gln Arg Ile Ser Val Phe Asp Tyr Ala Asn Val Arg
            100                 105                 110
His Ile Leu Gln Asp Ala Ser Asn Phe Arg Val Met Trp Gly Glu Ala
        115                 120                 125
Thr Ala Tyr Val Phe Gly Ser Lys Gly Trp Asp Phe Met Leu Ser Gly
    130                 135                 140
Asp Ala Pro Thr His Ala Asn Gln Arg Asn Ile Met Ser Arg Ala Leu
145                 150                 155                 160
Tyr Arg Gly Gln Trp His Asp Ala Val Lys Gln Phe Tyr Leu Asp Ile
                165                 170                 175
Thr Gln Gln Leu Leu Thr Glu Lys Ser Cys Arg Ile Gly Asn Val Asn
            180                 185                 190
Gln Val Asp Ile Ser Arg Glu
        195
```

<210> 32927

<211> 287
<212> PRT
<213> A.fumigatus

<400> 32927
Thr Ser Arg Ser Arg Ala Gly Cys Ala Lys Tyr Glu His Glu Leu Phe
1 5 10 15
Gln Thr Ala Arg Pro Ile Thr Gly Gly Met Tyr Ile Asn Ile Thr Trp
20 25 30
Phe Asp Tyr Val Arg Thr Ile Ile Asn Leu Asn Arg Asp Asn Ser Thr
35 40 45
Trp Asn Leu Asp Pro Arg Thr His Asp Asp Gln Asp Glu Ile Pro Thr
50 55 60
Ala Gln Gly Asn Gln Cys Ser Val Glu Phe Asn Leu Ala Tyr Arg Trp
65 70 75 80
His Ser Thr Ile Gly Arg Gln Asp Glu Ala Trp Thr Glu Lys Thr Tyr
85 90 95
Arg Glu Ile Val Gly Lys Pro Gly Gln Glu Ala Thr Leu Gln Asp Leu
100 105 110
Met Asp Gly Met Arg Lys Phe Asn Ala Arg Met Asp Lys Asp Pro Ser
115 120 125
Lys Arg Thr Phe Ala Gly Leu Gln Arg Gln Gly Asp Gly Thr Phe Arg
130 135 140
Asp Val Asp Leu Val Asp Ile Leu Thr Arg Ala Ile Glu Glu Val Ser
145 150 155 160
Gly Ser Phe Gly Pro Asn Asn Val Pro Lys Val Leu Arg Ser Val Glu
165 170 175
Ile Leu Gly Ile Gln Gln Ala Arg Lys Trp Asn Ile Gly Ser Leu Asn
180 185 190
Glu Phe Arg Lys Phe Phe Asp Leu Lys Pro Tyr Glu Ser Phe Glu Glu
195 200 205
Ile Asn Pro Asp Pro Tyr Val Ala Asp Gln Leu Arg His Leu Tyr Glu
210 215 220
His Pro Asp Tyr Val Glu Leu Tyr Pro Gly Ile Val Ala Glu Glu Pro
225 230 235 240
Lys Glu Pro Met Val Pro Gly Val Gly Ile Ala Pro Gly Tyr Thr Val
245 250 255
Ser Arg Ala Val Leu Ser Asp Ala Val Thr Leu Val Arg Gly Asp Arg
260 265 270
Phe Tyr Thr Val Arg Asp Glu Ser His Ser Ser Ser Val Ala Ser
275 280 285

<210> 32928
<211> 64
<212> PRT
<213> A.fumigatus

<400> 32928
Arg His Gly Thr Cys Ala Ser Phe Ser His Gly Phe Ile His Lys Val
1 5 10 15
Leu Gly Ser Leu Ser Val Ser Asp Gln Ile Ser Asn Met Tyr Asp Gln
20 25 30
Phe Thr Gly Leu His Pro Ala Gln Val Ser Asp Ala Phe Gly Gly Asn
35 40 45
Val Gln Thr Gln Tyr His Glu Leu Lys Thr Pro Tyr Ser Ile Tyr Asn
50 55 60

<210> 32929
<211> 115
<212> PRT
<213> A.fumigatus

<400> 32929
Glu Phe Thr Leu Gln Val Pro Met Ala Leu Thr Asp Glu Leu Leu Glu
1 5 10 15
Gln Lys Gln Phe Asp Lys Ala Leu Glu Ile Cys His Phe Ile Phe Ser
20 25 30
Pro Met Asp Ser Arg Asp Pro Ser Lys Cys Trp Lys Phe Arg Leu Phe
35 40 45
Gln Glu Ile Met Ala Lys Asp Tyr Leu Asp Asn Phe Phe Gln Ser Leu
50 55 60
Ile Pro Asn Gln Gly Asn Ser Gln Ile Thr Gly Arg Arg Asn Asn Pro
65 70 75 80
Phe Ala Pro His Val Val Ala Arg Ser Arg Thr Val Ala Tyr Met Lys
85 90 95
Ala Thr Val Met Lys Tyr Ile Gln Ile Leu Ile Asp Tyr Gly His Gln
100 105 110
Tyr Phe Arg
115

<210> 32930
<211> 118
<212> PRT
<213> A.fumigatus

<400> 32930
Leu Ala Asn Phe Leu Ser Leu Asn Gly Asn Leu Gln Ile Ala Val Ser
1 5 10 15
Met Pro Ser Ile Glu Val Gly Thr Ile Gly Gly Gly Thr Ile Leu Glu
20 25 30
Ala Gln Ser Ala Met Leu Asp Met Leu Gly Val Arg Gly Ser His Pro
35 40 45
Thr Asn Pro Gly Asp Asn Ala Arg Gln Leu Ala Arg Ile Val Ala Ala
50 55 60
Ala Val Leu Ala Gly Glu Leu Ser Leu Cys Ser Ala Leu Ala Ala Gly
65 70 75 80
His Leu Val Arg Ala His Met Ala His Asn Arg Ser Ala Ala Thr Thr
85 90 95
Arg Thr Ser Thr Pro Val Ser Ala Ala Val Ser Ala Ala Arg Gly Leu
100 105 110
Thr Met Ser Ser Ser Glu
115

<210> 32931
<211> 275
<212> PRT
<213> A.fumigatus

<400> 32931
Ala Leu Leu Leu Leu Ala Gln Pro Leu Arg Pro Val Gly Val Ala Gly
1 5 10 15
Pro Leu Thr Ile Asp Gly Gln Ser Tyr Phe Ile Pro Met Ala Thr Thr

```
            20                  25                  30
Glu Gly Val Leu Val Ala Ser Thr Ser Arg Gly Ala Lys Ala Ile Asn
        35                  40                  45
Ala Gly Gly Gly Ala Val Thr Val Leu Thr Gly Asp Gly Met Thr Arg
    50                  55                  60
Gly Pro Cys Val Gly Phe Pro Thr Leu Ala Arg Ala Ala Ala Ala Lys
65                  70                  75                  80
Val Trp Ile Asp Ser Glu Glu Gly Arg Ser Ile Leu Thr Ala Ala Phe
                85                  90                  95
Asn Ser Thr Ser Arg Phe Ala Arg Leu Gln His Leu Lys Thr Ala Leu
            100                 105                 110
Ala Gly Thr Tyr Leu Tyr Ile Arg Phe Lys Thr Thr Thr Gly Asp Ala
        115                 120                 125
Met Gly Met Asn Met Ile Ser Lys Gly Val Glu Lys Ala Leu His Val
    130                 135                 140
Met Ala Thr Glu Cys Gly Phe Asp Asp Met Ala Thr Ile Ser Val Ser
145                 150                 155                 160
Gly Asn Phe Cys Thr Asp Lys Lys Ala Ala Ala Ile Asn Trp Ile Asp
                165                 170                 175
Gly Arg Gly Lys Ser Val Val Ala Glu Ala Ile Ile Pro Gly Asp Val
            180                 185                 190
Val Arg Ser Val Leu Lys Ser Asp Val Asn Ala Leu Val Glu Leu Asn
        195                 200                 205
Thr Ser Lys Asn Leu Ile Gly Ser Ala Met Ala Gly Ser Val Gly Gly
    210                 215                 220
Phe Asn Ala His Ala Ser Asn Ile Val Thr Ala Val Phe Leu Ala Thr
225                 230                 235                 240
Gly Gln Asp Pro Ala Ala Lys Cys Arg Glu Gln Gln Leu Tyr Pro Asp
                245                 250                 255
His Glu Lys Val Ser Cys His Thr Phe Ser Ile Cys Phe Arg Cys Ser
            260                 265                 270
Ser Thr Asn
        275
```

<210> 32932
<211> 61
<212> PRT
<213> A.fumigatus

<400> 32932

```
Asp Gly Gly Arg Ser Pro Cys Arg Ser Ser Thr Ala Val Val Arg His
1               5                   10                  15
Val Cys Ser Asp Lys Val Ala Gly Gly Lys Cys Arg Ala Gln Ala Gln
            20                  25                  30
Leu Ser Arg Lys Asn Ser Gly Ser Asp Asn Ser Ser Lys Leu Pro Ser
        35                  40                  45
Val Val Thr Trp Ile Gly Arg Val Gly Thr Thr Asp Thr
    50                  55                  60
```

<210> 32933
<211> 161
<212> PRT
<213> A.fumigatus

<400> 32933

```
Leu Thr Val Cys Pro Arg Tyr Val Arg Lys Pro Arg Pro Gly Phe Phe
```

```
1               5                   10                  15
Arg Ile Thr Lys Thr Asn His Asn Ile Leu Gln Gly Phe Ser Asn Pro
            20                  25                  30
Gly Glu Arg Cys Thr Glu Glu Asp Trp Ala Lys Val Thr Asp Trp Ile
        35                  40                  45
Gln Glu Asn Ala Arg Arg Tyr Trp Leu Ile Pro Gly Gly Pro Leu Arg
    50                  55                  60
Pro Pro Ser Glu Gly Gly Ala Asp Val Ile Ile Met Asp Asp Pro Gln
65                  70                  75                  80
Met Pro Ala Leu Ile Pro Ile Ala Lys Glu Met Ala Pro Asp Arg Pro
                85                  90                  95
Val Ile Phe Arg Ser His Ile Gln Ile Arg Ser Asp Leu Ile Ala Lys
            100                 105                 110
Pro Asp Thr Pro Gln Ala Glu Ala Trp Gly Arg Met Trp Glu Leu Ile
        115                 120                 125
Lys Gln Ala Asp Leu Phe Ile Ser His Pro Val Ser Ser Phe Val Pro
    130                 135                 140
Arg Asn Val Pro Lys Glu Met Val Gly Tyr Met Gly Ala Ser Thr Asp
145                 150                 155                 160
Trp
```

Sequence Listing - 2005-04-14 - 15:05:05

<210> 32934
<211> 241
<212> PRT
<213> A.fumigatus

<400> 32934

```
Gln Ile Thr Asp Glu Tyr Ile Ile Gln Ile Ala Arg Phe Asp Pro Ser
1               5                   10                  15
Lys Gly Ile Phe Asp Val Val Glu Ser Tyr Glu Lys Phe Tyr Asn Arg
            20                  25                  30
Leu Thr Ala Ala Leu Pro Asp Glu Lys Pro Pro Lys Leu Leu Ile Cys
        35                  40                  45
Gly His Gly Ser Ile Asp Asp Pro Asp Gly Ser Leu Ile Tyr Asp Ala
    50                  55                  60
Val Val Ser His Ile Glu His Asn Ile Pro Tyr Leu Ile Glu Gln Ile
65                  70                  75                  80
Cys Val Met Arg Leu Gly Pro Ser Asp Gln Ile Leu Asn Ala Leu Met
                85                  90                  95
Ser Lys Ala Lys Val Ala Leu Gln Leu Ser Thr Arg Glu Gly Phe Glu
            100                 105                 110
Val Lys Val Ser Glu Ala Val His Lys Gly Thr Pro Ile Ile Ala Thr
        115                 120                 125
Arg Ala Gly Gly Ile Pro Leu Gln Val Glu Asn Asn Arg Ser Gly Phe
    130                 135                 140
Leu Val Asp Val Gly Asp Thr Asp Ala Val Ala Glu Tyr Leu Phe Lys
145                 150                 155                 160
Leu Phe Thr Asp Glu Glu Phe Tyr Gly Glu Met Ser Arg Tyr Glu Ile
                165                 170                 175
Lys Asn Val Cys Asp Glu Val Ser Thr Val Gly Asn Ala Leu Asn Trp
            180                 185                 190
Leu Tyr Leu Ala Ser Lys Met Ser Lys His Glu Pro Val Arg Pro Asn
        195                 200                 205
Gly Arg Phe Ile Asn Asp Met Ala Arg Glu Glu Ala Gly Phe Pro Tyr
    210                 215                 220
```

```
Glu Pro Asp Glu Ser Arg Leu Thr Arg Ala Val Glu Val Glu Asn Met
225                 230                 235                 240
Gly
```

<210> 32935
<211> 251
<212> PRT
<213> A.fumigatus

<400> 32935

```
Asn Pro Glu Trp Arg Ser Lys Val Lys Lys Asp Pro Gly Ile Pro Asn
1               5                   10                  15
Leu Phe Pro Phe Lys Asp Lys Ile Leu His Glu Ile Glu Glu Lys Lys
            20                  25                  30
Arg Leu Lys Ala Glu Glu Gln Gln Arg Leu Lys Glu Glu Ala Arg Ala
        35                  40                  45
Arg Arg Met Ala Glu Lys Gln Gln Ser Gln Asp Gly Gly Ser Val Pro
    50                  55                  60
Asn Ala Met Ile Asp Asp Asp Glu Ile Asp Glu Asp Met Asp Glu Asp
65                  70                  75                  80
Asp Leu Asp Ser Ser Asn Pro Met Ala Ala Leu Leu Ala Ser Ala Arg
                85                  90                  95
Ala Arg Ala Ala Glu Tyr Glu Asp Glu His Gly Asp Glu Ser Asp Glu
            100                 105                 110
Asp Asp Glu Met Asp Glu Asp Asp Asp Glu Asp Asp Asp Asp Asp Val
        115                 120                 125
Asp Gly Met Asp Glu Asp Glu Lys Glu Gly Ser Ala Thr Leu Gly Glu
    130                 135                 140
Asn Ile Pro Glu Leu Val Ser Gln Pro Ile Ser Lys Glu Asn Ser Arg
145                 150                 155                 160
Arg Ala Phe Asp Lys Val Phe Lys Gln Val Val Asp Ala Ala Asp Val
                165                 170                 175
Ile Leu Tyr Val Leu Asp Ala Arg Asp Pro Glu Gly Thr Arg Ser Lys
            180                 185                 190
Glu Val Glu Arg Glu Val Met Ala Ala Asp Gly Gly Ser Lys Arg Leu
        195                 200                 205
Ile Leu Ile Leu Asn Lys Ile Asp Leu Val Pro Pro Pro Val Leu Lys
    210                 215                 220
Gly Trp Leu Leu His Leu Arg Arg Ser Leu Pro Thr Leu Pro Leu Asn
225                 230                 235                 240
Ala Ala Asn Gly Leu Gly Gln Arg Thr His Leu
                245                 250
```

<210> 32936
<211> 300
<212> PRT
<213> A.fumigatus

<400> 32936

```
Thr Arg Ser Ile Trp Ser Pro Leu Leu Cys Ser Lys Ala Gly Tyr Cys
1               5                   10                  15
Thr Cys Asp Asp Leu Cys Pro Arg Tyr Leu Ser Met Arg Pro Met Gly
            20                  25                  30
Ser Val Asn Ala His Thr Cys Asp His Lys Gln Leu Thr Val Lys Gly
        35                  40                  45
```

```
Thr Leu Glu Thr Leu Phe Arg Ala Leu Lys Ser Leu Cys Arg Asn Lys
    50                  55                  60
Gln Leu Asn Trp Ser Ile Ser Val Cys Ile Ile Gly Tyr Pro Asn Val
65                  70                  75                  80
Gly Lys Ser Ser Val Ile Asn Ala Leu Thr Ala Arg Leu Asn Lys Gly
                85                  90                  95
Ser Ser Asn Ala Cys Pro Thr Gly Ala Glu Ala Gly Val Thr Thr Ser
            100                 105                 110
Leu Arg Gln Val Lys Leu Asp Ser Lys Leu Lys Leu Ile Asp Ser Pro
        115                 120                 125
Gly Ile Val Phe Pro Asn Ser Ser Asp Lys Lys Lys Ser Lys Ser Lys
    130                 135                 140
Lys Asp Glu His Ala Arg Leu Val Leu Leu Asn Ala Ile Pro Pro Lys
145                 150                 155                 160
Gln Ile Glu Asp Pro Ile Pro Ala Val Ser Leu Leu Leu Arg Arg Leu
                165                 170                 175
Ser Ser Ser Glu His Leu Met Ser Lys Met Leu Gln Leu Tyr Asn Ile
            180                 185                 190
Pro Pro Leu Phe Pro Ser Gly Asn Asp Gln Thr Thr Asp Phe Leu Ile
        195                 200                 205
Gln Val Ala Arg Lys Arg Gly Arg Leu Gly Lys Gly Gly Ile Pro Asn
    210                 215                 220
Leu Glu Ser Ala Ala Met Ala Val Ile Asn Asp Trp Arg Asp Gly Arg
225                 230                 235                 240
Ile Gln Gly Trp Ala Thr Pro Pro Val Leu Pro Ser Val Val Met Thr
                245                 250                 255
Ala Gln Gly Gly Ser Thr Ser Pro Val Glu Ser Gly Val Asp Thr Lys
            260                 265                 270
Gln Ile Val Thr Glu Trp Ala Ala Glu Phe Lys Ile Glu Gly Leu Trp
        275                 280                 285
Gly Asn Gly Glu Gly Asp Asp Glu Glu Met Ala Glu
    290                 295                 300

<210> 32937
<211> 70
<212> PRT
<213> A.fumigatus

<400> 32937
Val Arg Pro Ile Tyr Asp His Leu Arg Thr Val Ser Lys Thr Arg Ser
1               5                   10                  15
Arg Ile Gly Ala Glu Leu Gly Val Asp Pro Lys Thr Ile Leu Ala Thr
            20                  25                  30
Ser His Gly Arg Arg Ser Ile Asp Thr Ile Lys Leu Tyr Asp Pro Ser
        35                  40                  45
Lys Ala Asn Trp Glu Cys Lys Tyr Ser Pro Tyr Ala Ile Tyr Gln Pro
    50                  55                  60
Ser Thr Arg His Pro Ile
65                  70

<210> 32938
<211> 220
<212> PRT
<213> A.fumigatus

<400> 32938
```

```
Pro Ser Pro Leu Ala Ala Leu Arg Gly Ser Val Gly Lys Asp Arg Arg
1               5                  10                  15
Lys Cys Ser Ser Gln Pro Leu Ser Thr Gly Gly Gly Thr Arg Ser Ile
            20                  25                  30
Leu Phe Arg Ile Lys Ile Ser Leu Leu Glu Pro Pro Ser Ala Ala Ile
        35                  40                  45
Thr Ser Arg Ser Thr Ser Phe Asp Arg Val Pro Ser Gly Ser Arg Ala
    50                  55                  60
Ser Ser Thr Tyr Lys Ile Thr Ser Ala Ala Ser Thr Thr Cys Leu Asn
65                  70                  75                  80
Thr Leu Ser Asn Ala Arg Arg Glu Phe Ser Phe Glu Met Gly Cys Glu
                85                  90                  95
Thr Ser Ser Gly Met Phe Ser Pro Ser Val Ala Leu Pro Ser Phe Ser
            100                 105                 110
Ser Ser Ser Met Pro Ser Thr Ser Ser Ser Ser Ser Ser Ser Ser Ser
        115                 120                 125
Ser Ser Ile Ser Ser Ser Ser Ser Leu Ser Ser Pro Cys Ser Ser Ser
    130                 135                 140
Tyr Ser Ala Ala Arg Ala Arg Ala Glu Ala Ser Arg Ala Ala Ile Gly
145                 150                 155                 160
Phe Asp Glu Ser Arg Ser Ser Ser Ser Ile Ser Ser Ser Ile Ser Ser
                165                 170                 175
Ser Ser Ile Ile Ala Leu Gly Thr Asp Pro Pro Ser Cys Asp Cys Cys
            180                 185                 190
Phe Ser Ala Ile Arg Arg Ala Arg Ala Ser Ser Leu Arg Arg Cys Cys
        195                 200                 205
Ser Ser Ala Phe Asn Leu Phe Phe Ser Ser Ile Ser
    210                 215                 220
```

<210> 32939
<211> 97
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (49),(57)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 32939
Gly Ser Arg Gly Leu Glu His Ile Glu Ser Tyr Arg Tyr Ser Ile Gly
1               5                  10                  15
Arg Cys Tyr Tyr Leu Tyr Arg Ile Phe Trp Leu Leu Tyr Ser Arg Ser
            20                  25                  30
Leu Tyr Phe Gly Gln Leu Leu Arg Leu Thr His Cys Glu Arg Leu Cys
        35                  40                  45
Xaa Ser Ile Thr Phe Ser Arg Leu Xaa Ile Asn Phe Gln Leu Asn Met
    50                  55                  60
Ala His Ser Glu Gly Ser Phe Ser Ala Pro Pro Gln Ala His Thr Phe
65                  70                  75                  80
Asp Gly Leu Leu Ser Asp Phe Asp Gly Thr Ile Val Asp Ser Thr Asp
                85                  90                  95
Gly
```

<210> 32940

<211> 126
<212> PRT
<213> A.fumigatus

<400> 32940
Ala Trp Thr Pro Arg Pro Ser Ser Pro His Pro Thr Ala Glu Gly Val
1 5 10 15
Ser Ile Pro Ser Ser Cys Met Thr Pro Pro Arg Pro Thr Gly Asn Val
20 25 30
Ser Thr Arg Pro Thr Leu Ser Thr Asn His Arg Pro Gly Thr Gln Ser
35 40 45
Asp Asn Val Val Gln Thr Asp Val Ser Tyr Ile Glu Gly Arg Ile Pro
50 55 60
Lys Glu Tyr Gly Ser Asp Ala Val Glu Ile Pro Gly Ala Arg Thr Leu
65 70 75 80
Leu Asn Ala Leu Asp Glu Ser Gly Ala Arg Trp Gly Val Val Thr Ser
85 90 95
Gly Thr Arg Ala Leu Val Asp Gly Trp Leu Gly Val Leu Asn Leu Lys
100 105 110
His Pro Lys Val Leu Val Val Ala Glu Asp Val Glu Leu Gly
115 120 125

<210> 32941
<211> 253
<212> PRT
<213> A.fumigatus

<400> 32941
Gly Asn Glu Asn Pro Arg Arg Arg Leu Leu Ser Ile Ser Ser Ile Asp
1 5 10 15
Ser Arg Asn Tyr Ile Leu Gly Leu Ala Asp Pro Gln Arg Pro Gly Ala
20 25 30
Ser Pro Asn Asp Ser Lys Arg Val Gln Lys Asn Pro Ala Thr Phe Gln
35 40 45
Cys Asn Leu Cys Pro Lys Arg Phe Thr Arg Ala Tyr Asn Leu Arg Ser
50 55 60
His Leu Arg Thr His Thr Asp Glu Arg Pro Phe Val Cys Thr Val Cys
65 70 75 80
Gly Lys Ala Phe Ala Arg Gln His Asp Arg Lys Arg His Glu Gly Leu
85 90 95
His Ser Gly Glu Lys Lys Phe Val Cys Gln Gly Glu Leu Ser Arg Gly
100 105 110
Gly Gln Trp Gly Cys Gly Arg Arg Phe Ala Arg Ala Asp Ala Leu Gly
115 120 125
Arg His Phe Arg Ser Glu Ala Gly Arg Ile Cys Ile Lys Pro Leu Leu
130 135 140
Asp Glu Glu Ser Gln Glu Arg Glu Arg Ser Leu Met Asp Gln Gln Gln
145 150 155 160
His His Leu Gln Pro Leu Pro Gln Gln Val Met Val Pro Val Asp Asn
165 170 175
Pro His Ala Gly Asn Phe Val Leu Pro Ala Ala Leu Leu Ala Gln Tyr
180 185 190
Pro Ala Leu Gln Thr Leu Gln Trp Asp Gln Ile Ala Ala Ser Ala Asp
195 200 205
Asp Pro Ser Asp Ile Gly Gly Arg Ser Ser Phe Asp Ala Ser Ser Gly
210 215 220

```
Asn Glu Phe Gly Phe Glu Asp Asp Asp Ser Gly Leu Ser Ser Val Ser
225                 230                 235                 240
Gly Ile Asn Ala Gly Tyr Ser Ala Ala Gly Asn Phe Tyr
                245                 250
```

<210> 32942
<211> 220
<212> PRT
<213> A.fumigatus

<400> 32942

```
Ile Arg Pro Ile Pro Cys Arg Ile Arg Thr Ser Lys Gly Asn Pro Gly
1               5                   10                  15
Thr Pro Ser Ser Phe Tyr Ile Ala Pro Ile Arg Ala Gly Glu Lys Pro
            20                  25                  30
Thr Arg Gly Pro Gly Phe Gly Ser Thr Val Ser Phe Ser Glu Arg Glu
        35                  40                  45
Glu Glu Pro His Leu Gly Gly Pro Pro Pro Ser Gln Asn Trp Ser Leu
    50                  55                  60
Met Gly Ser Val Ile His Ser Ser Pro Val Glu Thr His Ile Tyr Asn
65                  70                  75                  80
Leu Arg Leu Leu Ala His Glu Leu Arg Ile Arg Asp His Thr Thr Phe
                85                  90                  95
Val Cys Asp Ala Ser Trp Pro Thr Ile Leu Ser His Leu Arg Ser Ala
            100                 105                 110
Ser Val Gly Val Asn Ala Met Trp Asn Glu His Phe Gly Ile Cys Val
        115                 120                 125
Val Glu Tyr Gln Ala Ala Gly Leu Ile Ser Val Val His Asp Ser Gly
    130                 135                 140
Gly Pro Arg Glu Asp Ile Val Ile Asp Leu Gly Asp Gly Ala Thr Gly
145                 150                 155                 160
Phe Arg Ala Ser Ser Glu Asp Glu Phe Ala Ala Ala Phe Glu Ala Ala
                165                 170                 175
Leu Ala Leu Pro Ala Glu Glu Lys Val Ala Met Arg Gln Arg Ala Arg
            180                 185                 190
Lys Ser Ala Leu Arg Phe Thr Glu Glu Glu Phe Ser Gln Lys Trp Ile
        195                 200                 205
Glu Glu Val Gly Lys Leu Val Glu Ile Cys Arg Arg
    210                 215                 220
```

<210> 32943
<211> 241
<212> PRT
<213> A.fumigatus

<400> 32943

```
Ala Thr Pro Glu Asn Tyr Arg Arg Gly Arg Lys Glu Ser Thr Lys Leu
1               5                   10                  15
Ser Thr Ser Asp Ile Thr Phe Ser Gly Ser Phe Asn Pro Ser Gly Asn
            20                  25                  30
Ala Tyr Leu Ser Val Tyr Gly Trp Thr Thr Asn Pro Leu Val Glu Tyr
        35                  40                  45
Tyr Ile Leu Glu Asn Tyr Gly Ser Tyr Asn Pro Gly Ser Gly Met Thr
    50                  55                  60
His Lys Gly Thr Val Thr Ser Asp Gly Ser Thr Tyr Asp Ile Tyr Glu
65                  70                  75                  80
```

```
His Gln Gln Val Asn Gln Pro Ser Ile Val Gly Thr Ala Thr Phe Asn
                85                  90                  95
Gln Tyr Trp Ser Ile Arg Gln Asn Lys Arg Ser Ser Gly Thr Val Thr
            100                 105                 110
Thr Ala Asn His Phe Lys Ala Trp Ala Ser Leu Gly Met Asn Leu Gly
        115                 120                 125
Thr His Asn Tyr Gln Ile Val Ser Thr Glu Gly Tyr Glu Ser Ser Gly
    130                 135                 140
Thr Ser Thr Ile Thr Val Ser Ser Gly Gly Ser Ser Ser Gly Gly Ser
145                 150                 155                 160
Gly Gly Ser Ser Ser Thr Thr Ser Ser Gly Ser Ser Pro Thr Gly Gly
                165                 170                 175
Ser Gly Ser Val Ser Leu Leu Pro Tyr Gly Cys Gly Phe Met Cys Ile
            180                 185                 190
Leu Thr Val Ile Val Leu Cys Phe Val Gly Pro Val Arg Trp Asn Trp
        195                 200                 205
Leu Val Trp Ser Tyr Leu Leu Leu Phe Gly His Leu Pro Gly Phe Glu
    210                 215                 220
Leu Val Leu Leu Pro Val Leu Val Val Pro Ser Cys Arg Val Ile Ser
225                 230                 235                 240
Lys
```

<210> 32944
<211> 87
<212> PRT
<213> A.fumigatus

```
<400> 32944
Gln Gly Gly Phe Tyr Pro Leu Ile Ala Glu Gly Ile Phe Pro Trp Arg
1               5                  10                  15
Ile Ala Ser Val Trp Leu Ala Leu Leu Trp Ala Phe Ser Leu Gly Ala
            20                  25                  30
Leu Ile Tyr Ser Leu Leu Gln Asn Gly Leu Thr Ser Ser Trp Val Phe
        35                  40                  45
Gly Gln Leu Leu Pro Val Phe Met Ala Val Leu Pro Ile Val Ser Leu
    50                  55                  60
Val Thr Ser Ile Ile Gly Asp Arg Ser Ala Glu Ser His Ser Asp Gly
65                  70                  75                  80
Val His Leu His Phe Cys Val
                85
```

<210> 32945
<211> 109
<212> PRT
<213> A.fumigatus

```
<400> 32945
Gln Ala Ile Val Ala Leu Leu Leu Leu Gly Thr Tyr Arg Ile Asp Arg
1               5                  10                  15
Ala Thr Tyr Leu Ile Ile Tyr Glu Leu Glu Phe Pro Asp Gln Ala Asp
            20                  25                  30
Cys Ala Asn Thr Glu His Ser Ala Ile Ser Ala Thr Gln Leu Gln Phe
        35                  40                  45
Asn Leu Ser Ser His Ser Ala Leu Cys Ala Pro Ser Arg Gln Thr Asp
    50                  55                  60
```

```
Trp Ile Gln Leu Trp Ala Leu Phe Gly Thr Ser Thr Gln Met Pro Asp
65                  70                  75                  80
Ala Val His Asp Pro Val Pro Asn Ala Met Glu Cys Ser Thr Leu Ile
                85                  90                  95
Ser Ile Cys Ser Thr Glu Lys Ala Ala Ser Arg Gln Ile
            100                 105
```

<210> 32946
<211> 138
<212> PRT
<213> A.fumigatus

<400> 32946

```
Arg Leu Leu Pro Leu Pro Gly Phe Asp Val Val Tyr Pro Ala Asn Glu
1               5                   10                  15
Met Thr Ser Phe Tyr Lys Arg Phe Met Gly Ser Glu Gln Gly Gly Gly
            20                  25                  30
Leu Asp Pro Phe Asp Met Arg Arg Lys Trp Lys Asp Ile Ser Leu Ser
        35                  40                  45
Gly Gly Tyr Arg Lys Val Leu Ser Arg Met Gly Ala Asp Tyr Ser Val
    50                  55                  60
His Val Lys Leu Tyr Ser Gln Asp Asp Glu Gln Phe Val Gln Thr Asp
65                  70                  75                  80
Leu Asp Arg Leu Asn Gly Lys Glu Ala Ala Ile Glu Ser Asn Ala Asp
                85                  90                  95
Ser Ala Asp Lys Ile Ala Val Ile Leu Lys Phe Gln Leu Gly Ser Ser
            100                 105                 110
Gln Tyr Ala Thr Met Ala Leu Arg Glu Leu Met Lys Gly Arg Val Val
        115                 120                 125
Ala Tyr Lys Pro Asp Phe Gly Gly Gly Arg
    130                 135
```

<210> 32947
<211> 225
<212> PRT
<213> A.fumigatus

<400> 32947

```
Ile Ile Arg Gly Ser Ala Cys Leu Ile Ile Ser Arg Lys Arg Glu Thr
1               5                   10                  15
Ala Thr Asp Arg Tyr Asn Arg Met Ile Asp Arg Glu Arg Pro Asn Phe
            20                  25                  30
Leu Asp Ser Ala Asn Glu His Asn Ile Gln Pro Leu Ser Pro Gly Glu
        35                  40                  45
Glu Gln Pro Ser Pro Trp Tyr Ser Glu Pro Val Ser Thr Ser Ser Gln
    50                  55                  60
Thr Pro Leu Phe Gly Ser Asp Trp Thr Ala Thr Asn Val Gln Thr Ile
65                  70                  75                  80
Ala Thr Thr Asn Glu Pro Thr Ser Leu Ala Ser Ser Ser Thr Thr Asn
                85                  90                  95
Val Leu Ala Thr Thr Thr Ala Val Ile Ser Ser Ile Ser Ser Ser Thr
            100                 105                 110
Gly Thr Ser Pro Gln Pro Gly Asp Ser Ser Ser Gly Ser Ser Asp Thr
        115                 120                 125
Lys Thr Ile Ala Ile Ala Val Pro Val Ser Val Val Gly Ala Ala Leu
    130                 135                 140
```

```
Leu Ile Gly Ala Leu Phe Leu Leu Leu Arg Arg Arg Arg Arg Lys Thr
145                 150                 155                 160
Gln Gln Glu Asn Pro Ser Asp Leu Gln Val Asp Met Phe Gln Pro Thr
                165                 170                 175
Arg Thr Asn Leu Cys Ser Gln Asn Asp Thr Pro Trp Asn Glu His Ala
            180                 185                 190
Arg Ser His Glu Ile Phe Leu Arg Arg Ala Gly Ile Phe Phe Arg Pro
        195                 200                 205
Arg Gln Met Ile Thr Phe Pro Phe Gly Gln His Ser Leu Ser Ile Ile
    210                 215                 220
Lys
225
```

<210> 32948
<211> 168
<212> PRT
<213> A.fumigatus

<400> 32948

```
Gln Ala Arg Pro Ala Trp Thr Pro Val Leu Asn Ala Pro Ser Trp Asn
1               5                   10                  15
Pro Ser Arg Pro Gly Pro Thr Ser Thr Pro Pro Leu Ser Val Ala Ala
            20                  25                  30
Val Pro Ala Gly Thr Met Pro Ala Ile Ala Ser Thr Thr Thr Ser Arg
        35                  40                  45
Ala Val Thr Gly Ala Pro Asn Gln Ser Pro Pro Thr Pro Pro Ala Lys
    50                  55                  60
Arg Ser Lys Cys Ser Gly Ala Ser Thr Thr Thr Val Thr Thr Ala Ala
65                  70                  75                  80
Cys Ser Ala Ile Ala Ser Val Arg Thr Arg Ala Ser Leu Thr Asn Cys
                85                  90                  95
Trp Thr Arg Arg Thr Cys Gln Leu Arg Arg Arg Ser Lys Pro Arg Arg
            100                 105                 110
Thr Ala Ser Lys Pro Ala Ser Cys Arg Ala Arg Met Ser Met Gly Arg
        115                 120                 125
Ser Val Gly Thr Val Arg Thr Val Ser Arg Val Arg Pro Ala Gly Ala
    130                 135                 140
Met Thr Gly Ser Pro Ala Met Gly Ser Arg Gln Arg Arg Asp Gln Ser
145                 150                 155                 160
Val Arg Val Trp Ile Met Arg Arg
                165
```

<210> 32949
<211> 193
<212> PRT
<213> A.fumigatus

<400> 32949

```
Gln Ser Lys Gly Ala Ser Pro Leu Thr Ser Leu Glu Leu His Asp Pro
1               5                   10                  15
Lys Ala Ser Ile Glu Ile Thr Glu Cys Phe Leu Arg Trp Pro Ala Arg
            20                  25                  30
Leu Arg Glu Ile Ser Leu Leu Ser Leu Cys Tyr Gly Pro Tyr Glu Ser
        35                  40                  45
His Tyr Asp Ala Arg Ser Ile Gln Arg Leu Leu Ser Ile His Lys Asp
    50                  55                  60
```

```
Trp Leu Gln Lys Ile Thr Leu Gly Pro Ile Pro Pro Gln Gly Glu Asp
65                  70                  75                  80
Ile Pro Asp Leu Ser Asp Phe His Arg Leu Ser Asp Ile His Val Thr
                85                  90                  95
Leu Tyr Asn Ser Ser Ser Asn Glu Arg Gln Thr Pro Asp Ala Ile Tyr
            100                 105                 110
Lys Lys Leu Ala Ala Pro Asn Leu Arg Arg Leu Glu Ile Asp Leu Gly
        115                 120                 125
Asn Glu Arg Gln Pro His Asp Gln Trp Val Ala Glu Phe Leu Ala Leu
    130                 135                 140
Val Arg Arg Gly Arg Lys Gly Ser Pro Pro Gln Thr Cys Val Gln Trp
145                 150                 155                 160
Val Asp Val Lys Phe Cys Arg Trp Gly Asp Leu Ala Leu Gly Leu Ala
                165                 170                 175
Arg Arg Ser Ser Ile Asn Cys Glu Ser Val Arg Tyr His Ile Glu Ser
            180                 185                 190
Leu
```

<210> 32950
<211> 236
<212> PRT
<213> A.fumigatus

<400> 32950

```
Glu Met Arg Tyr Ala Ser Thr Pro Thr Thr Phe Ser Leu Leu Gln Leu
1               5                   10                  15
Thr Ser Gln Ala Gly Val Asp Ser Cys Pro Glu Cys Ala Ile Leu Glu
            20                  25                  30
Pro Val Ser Ser Trp Pro Asp Leu Asp Ser Ala Ala Val Ser Arg Ser
        35                  40                  45
Gly Pro Cys Gly Tyr Asn Ala Arg Asp Ser Ile Asp Tyr Asn Gln Pro
    50                  55                  60
Ser Ser Asn Trp Gly Thr Lys Pro Val Ala Thr Tyr Thr Ala Gly Gln
65                  70                  75                  80
Glu Ile Glu Val Gln Trp Cys Val Asp His Asn Gly Asp His Gly Gly
                85                  90                  95
Met Phe Ser Tyr Arg Ile Cys Gln Asp Gln Ser Ile Val Asp Lys Leu
            100                 105                 110
Leu Asp Ala Ser Tyr Leu Pro Thr Gln Ala Glu Lys Gln Ala Ala Glu
        115                 120                 125
Asp Cys Phe Glu Ala Gly Leu Leu Pro Cys Thr Asp Val Asn Gly Gln
    130                 135                 140
Glu Cys Gly Tyr Ser Ala Asp Cys Val Glu Gly Gln Ala Cys Trp Arg
145                 150                 155                 160
Asn Asp Trp Phe Thr Cys Asn Gly Phe Gln Ala Ala Glu Arg Pro Lys
                165                 170                 175
Cys Gln Gly Val Asp Asn Ala Ala Leu Asn Ser Cys Tyr Thr Ser Ile
            180                 185                 190
Ala Gly Gly Tyr Thr Val Thr Lys Lys Val Lys Ile Pro Asp Tyr Val
        195                 200                 205
Ser Asn His Thr Leu Leu Ser Phe Lys Trp Asn Ser Phe Gln Thr Gly
    210                 215                 220
Gln Ile Tyr Leu Ser Cys Ala Asp Ile Ser Ile Ser
225                 230                 235
```

<210> 32951
<211> 129
<212> PRT
<213> A.fumigatus

<400> 32951
Lys Arg Pro Phe Ile Leu Gly Lys His Ile Thr Glu Val Asp Leu Arg
1 5 10 15
Ala Tyr Thr Thr Ile Ile Arg Phe Asp Pro Ile Tyr Val Gln His Cys
20 25 30
Lys Cys Asn Leu Gly Thr Ile Arg Gln Asn Tyr Pro Thr Ile Asn Asn
35 40 45
Trp Leu Lys His Leu Tyr Tyr Asn Val Glu Gly Phe Arg Glu Ser Thr
50 55 60
Asn Phe Lys His Ile Lys Glu Ser Cys Lys Tyr Arg Ser Arg Gly Leu
65 70 75 80
Ile Ile Leu Cys Arg Leu Thr Cys Ile Asp Pro Lys Asn Gln Ala Asp
85 90 95
Ile Asn Pro Lys Gly Ile Val Pro Met Gly Pro Ile Pro Asp Ile Glu
100 105 110
Ser Gly Val Asp His Asn Trp Gly Leu Val Arg Val Gly Ser Ile Tyr
115 120 125
Val

<210> 32952
<211> 618
<212> PRT
<213> A.fumigatus

<400> 32952
Leu Trp Lys Met Lys Tyr Thr Asn Ser Met Phe Lys Gln Arg Ile Glu
1 5 10 15
Asn Val Tyr Leu Gln Lys Leu Gly Pro Lys Cys Gly Ser Ala Phe Leu
20 25 30
His Val Val Gln Leu Cys Leu Asp Ala Pro Asn Phe His Leu Ser Thr
35 40 45
Gln Pro Phe Glu Asp Phe Asn Leu Arg Val Pro Gln Thr Tyr His Tyr
50 55 60
Pro Val Leu Asp Leu Ser Ala Pro Asp Ser Ile Phe Ser Phe Ser Met
65 70 75 80
Asn Phe Leu Tyr Thr Met Cys Lys Ile Val Trp Ser Cys Cys Arg Ile
85 90 95
Asp Ile Phe Ser Ala Pro Ala Ala Glu Glu Leu Asp Asp Cys Leu Pro
100 105 110
Leu Ala Leu Val Pro Arg Thr Glu Thr Lys His Val His Lys Ser Pro
115 120 125
Gln Glu Tyr Glu Pro Glu Pro Gln Arg Leu Thr Arg Arg Asn Gly Ser
130 135 140
Tyr Pro Ala Leu Pro Val Gln Glu Met Arg Val Leu Arg Glu Lys Met
145 150 155 160
Gly Leu Glu Glu Arg Lys Ala Lys Lys Arg Thr Phe Lys Lys Leu Thr
165 170 175
Asn Val Glu Ile Pro Gln Asp His Leu Asn Glu Trp Asn Phe Gln Met
180 185 190
Leu Pro Arg Leu Arg Lys Leu Leu Gln Lys Val Leu Lys Asp Ser Ser

```
        195                 200                 205
Glu Ser Cys Gly Val Thr Leu Met Met Thr Gly Asp Ser Ala Glu Thr
    210                 215                 220
Ala Lys Thr Thr Ile Cys Val Thr Cys Ala Ser Ala Lys Lys Val Arg
225                 230                 235                 240
Ala Ala Leu Lys Lys Tyr Phe Val Leu Asp Asp Arg Glu Asp Trp Asp
                245                 250                 255
Ile Ile Val Leu Arg Gly Asp Ile Gln Arg Ser Lys Val Pro Arg Lys
            260                 265                 270
Lys Arg Arg Arg Pro Ala Lys Ser Arg Ser Gln Thr Ala Gly Thr Pro
        275                 280                 285
Ala Phe Pro Glu Arg Asp Leu Asn Pro Cys Tyr Gln Pro Arg Pro Leu
    290                 295                 300
Cys Gly Ala Ser Ile Gly Ala Phe Gln Asn Asp Glu His Leu Pro Pro
305                 310                 315                 320
Val Ser Tyr Gly Gly Ala Ile Leu Val Asp Gly Met Pro Tyr Gly Met
                325                 330                 335
Thr Val His His Met Leu Glu Ala Pro Ser Asp Asp Glu Ala Glu Glu
            340                 345                 350
Glu Val Val Glu Asn Arg Asn Val Gly Gly Pro Phe Arg Ser Ala Gly
        355                 360                 365
Asn Trp His Gly Glu Ser Ala Pro Ser Asn Asn Asp Phe Met Tyr Thr
    370                 375                 380
Trp Cys Asp Glu Asp Pro Ser Glu Val Asp Leu Glu Phe Glu Ile Ser
385                 390                 395                 400
Glu Asp Glu Asp Gly Asp Asp Ile Ser Leu Ser Arg Ser Leu Glu Gly
                405                 410                 415
Thr Tyr Asp Asp His Trp Leu Ser Asp Thr Tyr Ser Ser Asp Glu Glu
            420                 425                 430
Gly Phe Asp Val Asp Asp Pro Tyr Glu Asp Glu Asp Ala Ala Ser Ile
        435                 440                 445
Gly Asp Thr Ala Gly Val Glu Pro Gly Asp Glu Pro Pro Leu Phe Val
    450                 455                 460
Thr Gln Pro Ala Ile Asp Asp Val His Glu Asp Phe Phe Pro Ser Pro
465                 470                 475                 480
Glu Asp Arg Asp Asp Glu His Leu Ala Ser His Ser Leu Gly Phe Val
                485                 490                 495
His Ala Ser Ser Gly Val Arg Arg Trp Thr Arg Lys Gly Ile Lys His
            500                 505                 510
Glu Ile Asp Trp Ala Leu Ile Lys Ile Asn Asp Asp Arg Leu Asp Ala
        515                 520                 525
Arg Asn Ile Val Phe Asp Lys Thr Pro Pro Ser Ser Arg Gly Leu Pro
    530                 535                 540
Arg Arg Gly Pro Gly Gly Gln Pro Ser Gln Thr Gly Glu Ala Ile Phe
545                 550                 555                 560
Leu Asn Asp Val Ala Arg Met Glu Glu Leu Gly Gly Leu Lys Val His
                565                 570                 575
Cys Cys Gly Arg Thr Ser Gly Leu Gln Ser Gly Gln Ile Ser Arg Ala
            580                 585                 590
Met Thr Ile Val Lys Leu His Gly Arg Gln Thr Phe Ser Thr Ser Phe
        595                 600                 605
Cys Val Asp Gly Asn Phe Gly Gly Lys Leu
    610                 615
```

<210> 32953
<211> 66

<212> PRT
<213> A.fumigatus

<400> 32953
Gly Ile Ser Phe Leu Leu Tyr Cys Ile Tyr Thr Leu Pro Leu Pro His
1 5 10 15
Val Phe Asn Asp Tyr Lys Thr Val His Gly Asp Ile Tyr Ile Ser Arg
20 25 30
Ala Ser Leu Asp Asp Tyr Glu Thr Arg Ser Pro Phe Ala Thr Leu Asn
35 40 45
Lys His Lys Ile Tyr Ile Ile Ile Leu Pro Ser Trp Ala Cys Pro Ile
50 55 60
Gly Asp
65

<210> 32954
<211> 221
<212> PRT
<213> A.fumigatus

<400> 32954
Trp Leu Val Val His Pro Thr Tyr Gly Arg Ala Pro Phe Val Phe Leu
1 5 10 15
Arg Asn Pro Ser Pro His Gln Glu Pro Ala Leu Lys Asn Ser Arg Pro
20 25 30
Lys Met Pro Ala Pro Glu Lys Pro Val Pro Phe Leu Phe Thr Cys Arg
35 40 45
Phe Ala Gly Gln Leu Leu Ile Leu Thr Asp Arg Ala Asp Arg Met Val
50 55 60
Ala Lys Asn Ser Ile Arg Lys Ala Leu Thr Trp Lys Asn Ala Arg Arg
65 70 75 80
Phe Phe Tyr Gly Gly Val Pro Arg Arg Leu Ser Lys Glu Leu Ile Leu
85 90 95
Lys Arg Met Ala Ser Val Ala Pro Ala Ala Val Ser Gly Glu Ala Thr
100 105 110
Gly Ala Ile Pro Ala Thr Gly Leu Val Asp Gly Gln Thr Pro Ser Asn
115 120 125
Lys Ser Pro Arg Ala Lys His Leu Arg Thr Leu His Ser Trp Thr Gly
130 135 140
Phe Leu Asp Glu Glu Leu Glu His Asp Asp Arg Lys Val Ala Met Trp
145 150 155 160
Tyr Glu Glu Asn Arg Lys Ala Ile Gln Met Lys Ile Glu Ala Leu Lys
165 170 175
Thr Asp Ser Val Ala Thr Glu Ile Ala Gln Leu Leu Ile Ser Asn Lys
180 185 190
Glu Gly Gly Leu Lys Gly Val Gln Gln Val Leu Ser Met Leu Pro Val
195 200 205
Glu Glu Lys Glu Ala Val Leu Lys Tyr Leu Gly Ser Pro
210 215 220

<210> 32955
<211> 133
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (71)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32955
Lys Gln Asp Pro Thr Leu Thr Arg Arg Leu Gly Leu Trp Ala Ser Phe
1 5 10 15
Ala Leu Pro Pro Ile Thr Pro Gly Asp Ser Pro Ser Pro Phe Ser Leu
20 25 30
Phe Gln Ser Arg Thr Leu Thr Pro Asn Pro Thr Pro Gly Lys Thr Pro
35 40 45
Phe Pro Ser Ser Arg Val Phe Ala Pro Arg Lys Pro Ser Ile Thr Val
50 55 60
Leu Val Ser Cys Thr Pro Xaa Pro Arg Gly Pro Asn Pro Ile His Pro
65 70 75 80
Arg Leu Asn Ile Gln Leu Pro Pro Arg Pro Leu Arg Ile Leu Ala Ile
85 90 95
Val Pro Pro Pro Pro Arg Arg His Val Pro Ala Arg Arg Ser Gln Arg
100 105 110
Gln Pro Asp Trp Ala Ala Lys Ser Thr Pro Thr Cys Ala Ala Ala Ala
115 120 125
Ser Asn Ser His Ser
130

<210> 32956
<211> 174
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (46)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32956
Leu Gly Gly Lys Ile His Ala His Leu Arg Arg Ser Arg Phe Lys Leu
1 5 10 15
Pro Leu Met Ser Lys Cys Pro Leu Val Met Val Ala Ala Gly Thr Gly
20 25 30
Leu Ala Pro Phe Arg Ala Phe Ile Ala Glu Arg Arg Gln Xaa Ser Leu
35 40 45
Ile Gly Lys Glu Ile Gly Glu Met Ile Leu Phe Phe Gly Cys Arg Ala
50 55 60
Pro Thr Gln Asp Phe Ile Tyr Lys Glu Glu Leu Glu Glu Leu Gln Ala
65 70 75 80
Ala Leu Gly Asp Lys Leu Arg Val Ile Thr Ala Phe Ser Arg Glu Val
85 90 95
Gly Ser Gln Lys Val Tyr Val Gln Asp Arg Ile Ala Glu His Ala Ala
100 105 110
Glu Val Ile Arg Leu Ile Asp Glu Gly Ala Ser Val Tyr Ile Cys Gly
115 120 125
Arg Ala Gly Met Ala Arg Glu Val Glu Lys Thr Val Gly Glu Ala Met
130 135 140
Arg Ala Ala Asn Arg Trp Ser Glu Thr Glu Leu Tyr Glu Trp Ser Thr
145 150 155 160
Ala Ile Lys Met Asn Asn Lys Trp His Glu Asp Val Trp Gly

165 170

<210> 32957
<211> 144
<212> PRT
<213> A.fumigatus

<400> 32957
Ser Cys Met Lys Pro Leu His Asp Thr His Arg Ile Val Phe Ser Leu
1 5 10 15
Pro Ala Ser Met Thr Ala Val Ile Ser Gly Met Val Ile Pro Glu Lys
20 25 30
Ser Ala Met Ile Ile Val Ala Ala Leu Gln Ala Tyr Leu Phe Leu Pro
35 40 45
Pro Pro Ser Pro Leu Thr Phe Phe Leu Met Pro Pro Gly Lys Ala Asp
50 55 60
Glu Arg Leu Phe Ser Trp Ser Ser Ala Gly His Pro Pro Thr His Pro
65 70 75 80
Ala Pro Pro Pro Pro Pro Pro Pro Arg Thr Met Gly Phe Glu Glu Asn
85 90 95
Arg Val Gly Pro Glu Asn Glu Phe Ser Ala Leu Pro Ala Thr Pro His
100 105 110
Pro His Pro Pro Ala Val Pro Pro Pro Pro Pro Pro Pro His Pro Pro
115 120 125
Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Gln Pro Ala Pro Leu
130 135 140

<210> 32958
<211> 96
<212> PRT
<213> A.fumigatus

<400> 32958
Ser Leu Leu Thr Ser Gln Val Ser Pro Ser Arg Ile Ser Gln Gln Ser
1 5 10 15
Ser Thr Leu Ala Arg Lys Arg Arg Cys Gly Gly Tyr His Ala Ala Val
20 25 30
Ser Cys Lys Thr Met Leu Thr His Phe Arg Phe Asp Glu Arg Arg Gln
35 40 45
Leu Ser Arg Leu Val Glu Ala Phe Ile Ser Arg Ala Asn Ala Lys Gln
50 55 60
Arg Arg Gly Arg Ala Gly Arg Val Gln Ser Gly Ile Cys Phe His Leu
65 70 75 80
Phe Thr Lys His Arg His Asp Lys Leu Val Cys Pro Asn Ser Cys His
85 90 95

<210> 32959
<211> 134
<212> PRT
<213> A.fumigatus

<400> 32959
Lys Phe Thr Gln Arg Arg Ala Arg Ser Gly Gly Arg Gln Arg Gln Phe
1 5 10 15
Phe Thr Ile Pro Glu Asp Tyr Asp Thr Asn Ser Ser Asn Asp Val Val
20 25 30

```
Val Asn Ser Val Ile Ala Trp Ser Phe Tyr Pro Lys Leu Leu Thr Arg
        35                  40                  45
Glu Gly Lys Gly Trp Arg Asn Val Ala Asn Asn Gln Ser Val Thr Leu
    50                  55                  60
His Pro Thr Ser Val Asn Lys His Ala Asp Ala Ser Leu Lys Trp Leu
65                  70                  75                  80
Ser Tyr Tyr His Ile Met Gln Ala Arg Asn Arg Asn Tyr Asn Ala Phe
                85                  90                  95
Glu Thr Asn Ala Val Asp Asp Phe Ala Ile Ala Leu Leu Cys Gly Glu
            100                 105                 110
Ala Glu Phe Lys Val Arg Ala His Cys Pro Pro Phe Tyr Ser Phe Ala
        115                 120                 125
Lys Ile Arg Ile Leu Ile
    130
```

<210> 32960
<211> 76
<212> PRT
<213> A.fumigatus

<400> 32960

```
Thr Gln Met Tyr Ser Gly Ile Ile Ser Ile Asp Ala Asn Arg Ile Arg
1               5                   10                  15
Phe Ala Val Arg Asp Trp Lys Ala Met Leu Ala Leu Lys Ile Leu Ser
            20                  25                  30
Ala Arg Ile Arg Glu Ile Leu Ala Gly Thr Val Arg Asp Pro Gln Lys
        35                  40                  45
Val Leu Ser Tyr Lys Gln Gln Gln Trp Val Gly Ile Trp Gln Gln Ile
    50                  55                  60
Phe Ser Gln Ala Trp Lys Arg Met Ala Glu Lys Arg
65                  70                  75
```

<210> 32961
<211> 196
<212> PRT
<213> A.fumigatus

<400> 32961

```
His Ile Leu Gly Leu Thr Lys Asp Asp Asn Phe Gln Gly Ser Trp Arg
1               5                   10                  15
Pro Leu Ser Arg Val Arg Met Gln Ser Asn Ala Glu Glu Glu Leu Asp
            20                  25                  30
Gly Cys Arg Ala Val Ser Val Ser Thr Cys Leu Pro Ser Ile Asp Met
        35                  40                  45
Ile Asn Trp Tyr Val Gln Ile Pro Val Ile Ser Pro Leu Ile Leu Thr
    50                  55                  60
Ser Ser Gln Leu Ala Glu Gln Gln Thr Pro Glu Met Leu Arg Leu Ser
65                  70                  75                  80
Leu Gln Asp Leu Val Leu Arg Val Lys Ile Cys Lys Leu Gly Glu Val
                85                  90                  95
Glu Gln Thr Leu Leu Glu Ala Leu Asp Pro Pro Ser Ser Lys Asn Ile
            100                 105                 110
Arg Arg Ala Ile Asp Ser Leu Lys Glu Val Lys Ala Leu Thr Asn Ser
        115                 120                 125
Glu Ser Leu Thr Pro Leu Gly Met Gln Leu Ala Lys Leu Pro Leu Asp
    130                 135                 140
```

```
Val Phe Leu Gly Lys Leu Ile Ile His Gly Val Phe Phe Lys Cys Leu
145                 150                 155                 160
Asp Ala Cys Ile Ser Ile Ala Ala Ile Leu Ser Ser Lys Ser Pro Phe
                165                 170                 175
Val Asn Thr Met Gly Ser Gln Gln Pro Glu Arg Ser Cys Glu Ala Ile
            180                 185                 190
Ile Gln Glu Gly
        195
```

<210> 32962
<211> 83
<212> PRT
<213> A.fumigatus

<400> 32962

```
Val Gly Gly Trp Pro Ala Glu Asp Gln Glu Lys Ser Leu Ser Ser Ala
1               5                   10                  15
Phe Pro Gly Gly Met Arg Lys Asn Val Arg Gly Asp Gly Gly Gly Arg
            20                  25                  30
Asn Arg Tyr Ala Cys Lys Ala Ala Thr Ile Ile Ile Ala Asp Phe Ser
        35                  40                  45
Gly Ile Thr Ile Pro Asp Ile Thr Ala Val Ile Asp Ala Gly Lys Glu
    50                  55                  60
Lys Thr Met Arg Trp Val Ser Cys Ser Gly Phe Met Gln Asp Tyr Ala
65                  70                  75                  80
Asp Thr Phe
```

<210> 32963
<211> 69
<212> PRT
<213> A.fumigatus

<400> 32963

```
Met Leu Arg Met Ser Arg Leu Ser Leu Tyr Leu Glu Ala Gly Gly Thr
1               5                   10                  15
Ile Gln Asn Ser Ser Ala Ser Asp Phe Leu Ser Phe Leu Pro Ile Phe
            20                  25                  30
Leu Pro Pro Lys Phe Ser Ser Phe Leu Phe Ser Phe Phe Phe Val Pro
        35                  40                  45
Phe Phe Leu Phe Phe Lys Ser Gly Ala Ser Phe Ile Arg Asp Gly Thr
    50                  55                  60
Ser Pro Val Thr Ile
65
```

<210> 32964
<211> 335
<212> PRT
<213> A.fumigatus

<400> 32964

```
Pro Gln Ser Leu Ser Glu Leu Arg Ser Leu Ile Glu Asp Pro Glu Thr
1               5                   10                  15
Asp Asp Glu Leu Arg Ser Leu Ala Leu Glu Asp Leu Lys Ser Ser Asp
            20                  25                  30
Arg Thr Leu Pro Ala Ile Ser Lys Thr Leu Lys Asn Ala Leu Val Pro
```

```
        35                  40                  45
Arg His Pro Phe Ala Asp Leu Pro Cys Leu Leu Glu Ile Arg Pro Gly
    50                  55                  60
Ala Gly Gly Asp Glu Ala Gly Leu Phe Ala Phe Glu Leu Leu Arg Met
65                  70                  75                  80
Tyr Thr Ala Phe Cys Ser Arg Arg Gly Leu Gln Ser Asn Val Ile Lys
                85                  90                  95
Leu Asp Val Gln Asp Gly Pro Ser Asp Asp Arg Leu Ser Glu Ala Val
            100                 105                 110
Val Glu Ile Asp Ala Asp Gly Ala Tyr Asp Leu Leu Arg Thr Glu Ser
        115                 120                 125
Gly Val His Arg Val Gln Arg Val Pro Ala Thr Glu Thr Lys Gly Arg
    130                 135                 140
Thr His Thr Ser Ala Val Ser Val Met Val Leu Pro Ser Phe Pro Glu
145                 150                 155                 160
Ala Gly Pro Ser Met Asp Ser Ala Leu Asn Phe Asp Asp Pro Asn Ser
                165                 170                 175
Asp Tyr Tyr Val Asp Pro Gln Glu Val Arg Thr Glu Lys Met Arg Ala
            180                 185                 190
Ser Gly Ala Gly Gly Gln His Val Asn Lys Thr Glu Ser Ala Ile Arg
        195                 200                 205
Leu Thr His Ile Pro Thr Gly Ile Val Val Ser Met Gln Asp Ser Arg
    210                 215                 220
Ser Gln His Ala Asn Arg Lys Lys Ala Trp Gln Val Leu Arg Ala Lys
225                 230                 235                 240
Leu Ala Glu Ala Arg Gln Glu Ala Arg Glu Gln Glu Leu Val Glu Leu
                245                 250                 255
Arg Arg Gly Val Leu Gly Gly Val Ala Arg Met Gly Arg Gly Asp Lys
            260                 265                 270
Ile Arg Thr Tyr Asn Tyr Gly Gln Ser Arg Cys Thr Asp His Arg Ser
        275                 280                 285
Gly Ile Thr Val His Asn Leu Asp Asn Val Leu Asp Gly Gly Glu Ser
    290                 295                 300
Leu Glu Thr Ile Met Asp Ser Val Arg Thr Trp Leu Ala Asp Gln Glu
305                 310                 315                 320
Ile Ala Ala Ile Ser Ala Glu Asn Ser Ile Asn Ala Val Gly Lys
                325                 330                 335
```

<210> 32965
<211> 80
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (28),(57),(60)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 32965
Thr Pro Lys Gly Gly Gly Glu Ser Gln Asn Thr Leu Lys Ser Gln Pro
1               5                   10                  15
Leu Val Leu Lys Gln Trp Lys Val Cys Thr Ile Xaa Lys Lys Thr Leu
            20                  25                  30
Glu Lys Thr Asn Ile Asn Gly Asn Gly Ile Arg Pro Phe Thr Lys Ser
        35                  40                  45
Asn Glu Ser Leu Glu Gly Ile Gly Xaa Lys Lys Xaa Pro Leu Ser Phe
```

```
    50                  55                  60
Asn Gln Phe Phe Leu Thr Val Lys Asn Asn Ser Lys Asn Leu Leu Ser
65                  70                  75                  80

<210> 32966
<211> 87
<212> PRT
<213> A.fumigatus

<400> 32966
Ser Asn Cys Ala Val Ala Lys Thr Arg Ser Gln Leu Asn Arg Arg Leu
1               5                   10                  15
Pro Asp Ala Lys Lys Leu Pro Trp Pro Pro Phe Gly Ile Gln Trp Tyr
            20                  25                  30
Ala Gly Cys Thr Thr Leu Ile Ile Gly Asn Ser Leu Lys Ala Gly Ile
        35                  40                  45
Arg Lys Phe His Leu Val Val Leu Arg Tyr His Cys Pro Asn Phe Leu
    50                  55                  60
Ile Glu Thr His Ala Arg Ile Leu Val Arg Leu Arg Cys Leu Arg His
65                  70                  75                  80
Leu Gln Ile Ser Thr Ser Gly
                85

<210> 32967
<211> 82
<212> PRT
<213> A.fumigatus

<400> 32967
Gly Phe Val Ala Phe Asp Thr Phe Lys Ser Leu Leu Gln Asp Glu Asn
1               5                   10                  15
Gly Asn Ile Ser Gly Pro Arg Thr Val Ile Ala Gly Phe Gly Ala Gly
            20                  25                  30
Phe Thr Glu Ser Leu Leu Ala Val Thr Pro Phe Glu Ser Ile Lys Thr
        35                  40                  45
Gln Leu Phe Val Val Thr Phe Ile Glu Tyr Pro Thr Pro Ser Ser Asn
    50                  55                  60
Tyr Leu Gly His Lys Leu Leu Pro Gly Cys Ala Val Gln Leu Thr His
65                  70                  75                  80
Gly Tyr


<210> 32968
<211> 84
<212> PRT
<213> A.fumigatus

<400> 32968
His Thr Gly Ile Arg Ile Asp Asp Arg Lys Ser Pro Asn Pro Arg Met
1               5                   10                  15
Arg Gly Phe Leu His Gly Ser Lys Ile Ile Phe Gln Glu Arg Gly Leu
            20                  25                  30
Arg Gly Phe Phe Gln Gly Phe Val Pro Thr Thr Ala Arg Gln Ala Ala
        35                  40                  45
Asn Ser Ala Thr Arg Phe Ser Ser Tyr Thr Met Leu Lys Gln Leu Ala
    50                  55                  60
```

Gln Gly Tyr Val Ala Pro Gly Glu Lys Leu Gly Thr Ala Ser Thr Phe
65 70 75 80
Ala Leu Gly Gly

<210> 32969
<211> 88
<212> PRT
<213> A.fumigatus

<400> 32969
Ala Phe Gln Asn Leu Lys Phe Ser Pro Ile Asp Trp Tyr Leu Ala Leu
1 5 10 15
Ser Arg Met Gln Ser Leu Glu Ala Ser Lys Asn Tyr Lys Asn Ser Phe
20 25 30
Val Cys Ala Ala Arg Ile Phe Lys Asp Glu Gly Leu Leu Thr Phe Trp
35 40 45
Ser Gly Ala Val Pro Arg Leu Ala Arg Leu Ile Met Ser Gly Gly Ile
50 55 60
Val Phe Thr Met Phe Val Gly Ile Arg Pro Ser Arg Pro His Phe Arg
65 70 75 80
Val Leu Ile His His Asn Gln Val
85

<210> 32970
<211> 83
<212> PRT
<213> A.fumigatus

<400> 32970
Arg Thr Thr Leu Leu Pro Asp Gly Ile Tyr Arg Ile Phe Cys Arg Tyr
1 5 10 15
Ser Cys Tyr Leu Leu Ile Ser Gln Pro Ser Ser Asp Thr Ile His Tyr
20 25 30
Ser Leu Lys Thr Phe Ala Ala Ile Lys Asn Ile Ile Gln Ile Val His
35 40 45
Cys Asn Ala Ala Thr Val Ile Ser Ala Thr Thr Leu Ser Ile Ile Val
50 55 60
Cys Ala Asp Leu Ile Thr Thr Ala His Pro Ser Asp Ala Ser Lys Asn
65 70 75 80
Thr Ser Ser

<210> 32971
<211> 247
<212> PRT
<213> A.fumigatus

<400> 32971
Arg Arg Ser Thr Arg His Ser Met Asp Ile His Lys Asp Ile Arg Thr
1 5 10 15
Gly Arg Leu Thr Ala Thr Gly Leu Gln Gln Tyr Leu Glu Thr His Gly
20 25 30
Ile Asn Asp Thr Asp Ser Lys Gly Trp Thr Leu Leu Ala Thr Ala Val
35 40 45
Arg Ala Gly His Leu Lys Met Val Glu Leu Leu Leu Lys Gln His Ala

```
    50                  55                  60
Asp Pro Asn Thr Lys Ser His Gly Phe Ala Pro Ile His Leu Ala Val
65                  70                  75                  80
Thr Ala Lys Ala Glu Arg Leu Gln Ile Ile Ser Leu Leu His Ser Ala
                85                  90                  95
Lys Ala Asp Leu Asn Ala Gln Asp Pro Asp Gly Asn Thr Ala Ile Ile
            100                 105                 110
Ser Ala Ile Glu Gln Thr Gln Asp Asp Lys Val Ile Arg Leu Leu Arg
        115                 120                 125
Arg Leu Gly Ala Asn Leu Asp Ala Gln Gly Arg Ser Gly Lys Thr Ala
    130                 135                 140
Lys Gln Leu Ala Glu Ser Ser Asn Asn Met Leu Val Arg Gln Ala Val
145                 150                 155                 160
Gln Pro Asp Arg Pro Ile Leu Asp Arg Leu Arg Thr Val Thr Trp Ile
                165                 170                 175
Val Asn Val Val Val Gly Ala Phe Arg Tyr Val Val Arg Thr Phe Ile
            180                 185                 190
Gln Lys Pro Val Tyr Lys Ile Phe Asp Val Phe Lys Gly Arg Arg Gln
        195                 200                 205
Ala Pro Pro Gln Pro Ala Gln Ala Gly Pro Val Gly Thr Asp Ala Asp
    210                 215                 220
Phe Ala Asp Ala Ser Lys Pro Pro Pro Pro Pro Pro Pro Cys Pro Ser
225                 230                 235                 240
Glu Ser Leu Glu Ile Arg Leu
                245
```

<210> 32972
<211> 141
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (137)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32972

```
Arg Arg Phe Gln Ala Ile Lys His Pro Gln Thr Glu Ala Gly Phe Lys
1               5                   10                  15
Lys Ser Leu Asp Ser Tyr Ile Glu Asp Ser Cys Leu Asp Lys Phe Phe
            20                  25                  30
Ser Pro Gly Ser Lys Phe Leu Gln Glu Val Ser Gln Lys Ala Ala Lys
        35                  40                  45
Leu Lys Asp Asp Pro Arg Asn Lys Tyr Lys Pro Asp Gln Ile Lys Asp
    50                  55                  60
Leu Thr Arg Val Ala Leu Tyr Gln Pro Val Leu Tyr Cys Gly Arg Tyr
65                  70                  75                  80
Tyr Pro Pro Arg Thr Thr Thr His Thr Arg Arg Pro Gly Ala Pro Ala
                85                  90                  95
Asn Pro Gln Gln Thr Thr Ala Arg Arg Cys Glu Arg Lys Cys Gly Gly
            100                 105                 110
Arg Leu Ser Gly Ser Leu Ser Ser Ala Ser Gln Thr Ser Pro Pro Asn
        115                 120                 125
Trp Ser Val Pro Thr Arg Ala Phe Xaa Tyr Ala Cys Leu
    130                 135                 140
```

<210> 32973
<211> 148
<212> PRT
<213> A.fumigatus

<400> 32973
Leu Leu Ala Lys Gln Ile Leu Leu Leu Ser Val Lys Asp Asn Asp Leu
1 5 10 15
Leu Asn Cys His Arg Phe Gln Pro His Ser Glu Glu Glu Arg Trp Ile
20 25 30
Glu His Pro Leu Asp Thr Thr Glu Pro Ile Ile Leu His Lys Gln Ser
35 40 45
Lys Met Thr Ser Val Ser Leu Val Ser Gly Ala His Val Phe Phe Gln
50 55 60
Val Pro Ser Gly Ala Leu Val Asp Leu Gln Tyr Gln His Asp Thr Asn
65 70 75 80
Arg Trp Thr Ala Gln Ile Met Arg Thr Gln Val Thr Val Gln Pro Gly
85 90 95
Ser Pro Leu Cys Ala Ile Gln Gly Pro Ser Ser Val Ser Leu Phe Phe
100 105 110
Val Gly Asp Asn Asn Cys Ile Tyr Tyr Val Thr Arg Ser Thr Val Gln
115 120 125
Asp Ala Ser Glu Trp Glu Gly Asn Phe Val Ser Phe Leu Phe Pro Ser
130 135 140
Phe Ser Met Ile
145

<210> 32974
<211> 229
<212> PRT
<213> A.fumigatus

<400> 32974
Pro Ile Cys Phe Thr Leu Pro Pro Leu Lys Asp Val Leu Thr Ala Pro
1 5 10 15
Ala Ala Gln Ala Leu Pro Tyr Ile Phe His Arg Val Met Gly Ser Pro
20 25 30
Gly Gly Ala Leu Ala Leu Thr Thr Leu Val Leu Val Ile Thr Leu Phe
35 40 45
Cys Ser Ile Ser Ile Thr Val Ala Ala Ser Arg Ser Thr Trp Ala Phe
50 55 60
Ala Arg Asp Asp Ala Ile Pro Leu Ala Ser Leu Trp Ala Arg Val Asp
65 70 75 80
Pro Arg Leu Gly Val Pro Val Trp Ser Leu Leu Leu Leu Thr Val Ile
85 90 95
Gln Met Leu Leu Gly Leu Ile Asn Leu Gly Ser Ser Ser Ala Phe Thr
100 105 110
Ala Phe Val Ser Val Gly Val Ile Ala Leu Ala Val Ala Tyr Ala Ile
115 120 125
Pro Ile Phe Leu Ser Leu Arg His Gly Arg Thr Glu Val Ser Lys Ala
130 135 140
Leu Trp Asn Cys Gly Pro Val Val Gly Pro Ile Val Asn Ile Val Ala
145 150 155 160
Leu Cys Trp Ile Gly Phe Glu Leu Val Leu Phe Ser Met Pro Thr Val
165 170 175
Leu Pro Val Thr Arg Val Ser Met Asn Tyr Ala Ser Val Val Phe Val

```
            180                 185                 190
Gly Phe Leu Ala Ile Ala Ala Ala Trp Tyr Ala Val Tyr Ala Arg Lys
        195                 200                 205
Cys Glu Phe Ala Val Cys Phe Ala Tyr Leu Trp Asp Val Cys Ser Phe
    210                 215                 220
Val Val Arg Ser Leu
225
```

<210> 32975
<211> 73
<212> PRT
<213> A.fumigatus

<400> 32975

```
Ile Leu Met Arg Gly Cys Ala Thr Pro Val Val Lys Ile Leu Asp Ala
1               5                   10                  15
Gly Val Leu Glu Glu Cys Val Arg Ala Asn Leu Gly Asp Leu Thr Phe
            20                  25                  30
Glu Glu Ala Tyr Ala Arg Ser Lys Arg Ile Leu Asn Ile Thr Ile Ala
        35                  40                  45
Thr Ser Gly Lys Asn Gly Thr Pro Asn Leu Leu Asn Tyr Leu Thr Ala
    50                  55                  60
Pro Asn Val Val Ser Thr Phe Asn Ala
65                  70
```

<210> 32976
<211> 251
<212> PRT
<213> A.fumigatus

<400> 32976

```
Leu Ile Trp Ser Ala Ala Val Ala Ser Asn Ala Ser Thr Gly Ser Leu
1               5                   10                  15
Tyr Gln Pro Val Thr Val Tyr Cys Lys Asp Glu Thr Gly Ser Ile Val
            20                  25                  30
Pro Trp Pro His Ala Gln Asp Ala Thr Phe Gln Ser Trp Arg His Val
        35                  40                  45
His Tyr Ser Asp Gly Glu Ser Pro Leu Ser Arg Ile Ala Glu Leu Phe
    50                  55                  60
Asn Val Asn His Phe Ile Val Ser Gln Ala Arg Pro Tyr Leu Ile Pro
65                  70                  75                  80
Phe Leu Gly Pro Asp Leu Ser Met Leu Asp Arg His Gln Thr Gly Gln
                85                  90                  95
Trp Asn Ile Thr Arg Pro Leu Met Arg Leu Val Val Ala Glu Leu Arg
            100                 105                 110
His Arg Leu Arg Gln Leu Asp Tyr Leu Gly Leu Leu Pro Gln Ile Ile
        115                 120                 125
Gly Arg Leu Leu Ile Glu Glu Thr Ile Pro Gly Ser Asn Leu Thr Leu
    130                 135                 140
Val Pro Asp Leu Ser Leu Ser Asp Phe Thr Lys Leu Leu Gln Asn Pro
145                 150                 155                 160
Ser Lys Asp Asn Leu Ala Tyr Trp Ile Leu Lys Gly Glu Arg Gly Val
                165                 170                 175
Trp Pro Ala Ile Ser Ala Leu Lys Val Arg Cys Val Val Glu Ile Glu
            180                 185                 190
Leu Asp Lys Gly Tyr Gln Arg Val Arg Arg Arg Arg Pro Ser Glu Ser
```

```
        195                 200                 205
Val Ala Leu His Arg Arg Gly Pro Asn Glu Gly Val Pro Arg Arg Arg
    210                 215                 220
Arg Gly Tyr Ser Ile Asp Asn Gly Arg Asp Leu Ser Ser Leu Leu Gly
225                 230                 235                 240
Ser Ala Asp Tyr Gln Pro Asp Met Leu Asn Ser
                245                 250
```

<210> 32977
<211> 187
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (182)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32977

```
Arg Val Val Tyr Arg Cys Cys Asn Gln Ile Ile Met Ala Val Arg Ser
1               5                   10                  15
Arg Pro Ser Leu Arg Phe Ser Val Arg Arg Asp Asp Asn Ala Ser Gly
            20                  25                  30
His Asp Asp Asp Asp His Gln Asp Asn His Asp Asn Thr Leu Leu Ser
        35                  40                  45
Ser Pro Pro Pro Ala Lys Arg Pro Arg Leu Gln Gln Gln Gln Gln Gln
    50                  55                  60
Gln Gln Gln Arg Arg Gln Pro Pro Ser Ser Arg Arg Arg Lys Ser Ser
65                  70                  75                  80
Pro Asp Leu Leu Asp Ala Thr Ile Glu Asn Ser Ser His Arg Ala Pro
                85                  90                  95
Pro Ser Ser Lys Pro Pro Gln Val Val Arg Pro Thr Ala His Ser Pro
            100                 105                 110
Val Pro Pro Pro Pro His Leu Ser Thr Arg Arg Pro Pro Ala Pro Ser
        115                 120                 125
Thr Ala Gly Asp Ser Val Ser Phe Ser Ser Ser Ser Ser Ser Ser Asn
    130                 135                 140
Ser Ala Cys Val Pro Leu Pro Gly Thr Pro His Thr Ala Gly Arg Ser
145                 150                 155                 160
His Glu His Arg His Thr Pro Leu Ser Ala Ser Ala Ala Leu Tyr Met
                165                 170                 175
His Gly Gly Gly Gly Xaa Asn Ser Pro Asp Leu
            180                 185
```

<210> 32978
<211> 71
<212> PRT
<213> A.fumigatus

<400> 32978

```
Arg Ile Arg Gly Gln Ser Ile Ser Asp Asp His Arg Gln Arg Gln Arg
1               5                   10                  15
His Phe Leu Pro Ala Gly Ser Cys Lys Leu Gln Gln Tyr Pro Pro Pro
            20                  25                  30
Pro His Asn Glu Gly Lys Met Ser Asp Lys Ser Arg Glu Gly Phe Leu
        35                  40                  45
```

```
Asn Leu Lys Asp Asp Ser Pro Ala Ala Phe Ile Gly Val Leu Ala Asp
    50                  55                  60
Gln Lys Asp His Cys Phe Ser
65                  70
```

<210> 32979
<211> 160
<212> PRT
<213> A.fumigatus

<400> 32979

```
Pro Gln Thr Glu Gln Gln Gln Glu Asp Asp Pro Ser Ser Pro Ala Tyr
1               5                   10                  15
Thr Cys Gln Pro Ser Pro Ser Ser Arg Thr Thr Arg Lys Ser Ile Ser
            20                  25                  30
Pro Pro Ser Arg Asn Thr Pro Pro Thr Leu Pro Thr Pro Gly Ser Leu
        35                  40                  45
Ala Ser Ser Ser Lys Ala Ala Thr Ala Lys Pro Cys Ile Ser Thr Val
    50                  55                  60
Thr Asn Ala Asn Ser Leu His Arg Arg Pro Ala Ala Pro Ser Met Pro
65                  70                  75                  80
Pro Glu Pro Pro Pro Cys Pro Ser Ser Ser Ala Val Ala His Leu Pro
                85                  90                  95
Pro Ala Lys Thr Ser Ser Ser Ala Arg Thr Pro Pro Thr Pro Glu Asp
            100                 105                 110
Asn Thr Ser Leu Ser Cys His Pro Gly Asn Asn Lys Phe Ser Arg Glu
        115                 120                 125
Gln Ser Arg Pro Pro Pro Leu Thr Ser Ala Lys Phe Ala Ser Gly Ser
    130                 135                 140
Ser Asp Ser Arg Pro Pro Ser Lys Ile Pro Arg Gly Pro Phe Arg Pro
145                 150                 155                 160
```

<210> 32980
<211> 64
<212> PRT
<213> A.fumigatus

<400> 32980

```
Trp Cys Leu Asn Ser Ser Cys Val Ala Gln Leu Ile Asp Ser Ile Ala
1               5                   10                  15
Ile Ala Pro Gly Met Glu Gly Glu Ser Asp Leu Phe Phe Cys Phe Val
            20                  25                  30
Ala Leu Ser Ser Ser Ser Arg Ser Phe Phe Leu Phe Phe Ser Ala Val
        35                  40                  45
Ala Ile Asn Tyr Arg Asp Val Val Trp Pro Asn Thr Gly Phe Ala Glu
    50                  55                  60
```

<210> 32981
<211> 131
<212> PRT
<213> A.fumigatus

<400> 32981

```
Asn His Leu Leu Thr Thr Thr Thr Glu Asn Asn Trp Tyr Thr Ala Thr
1               5                   10                  15
Asp Lys Met Thr Thr Asn Gly Thr Thr Thr Arg Arg Arg Pro Leu Val
```

```
            20                  25                  30
Pro Gly Ile Tyr Val Pro Thr Val Ala Phe Phe Lys Asp Asp Glu Glu
        35                  40                  45
Val Asp Leu Pro Thr Val Glu Lys His Ala Ala Tyr Leu Ala Asp Ala
    50                  55                  60
Gly Val Thr Gly Ile Val Val Gln Gly Ser Asn Gly Glu Ala Val His
65                  70                  75                  80
Leu Asp Arg Asp Glu Arg Lys Leu Ile Thr Ser Ala Thr Arg Arg Ala
                85                  90                  95
Leu Asp Ala Ala Gly Ala Thr Ser Met Pro Leu Ile Val Gly Cys Gly
            100                 105                 110
Ala Ser Ser Thr Arg Glu Asn Ile Gln Phe Cys Gln Asp Ala Pro Asp
        115                 120                 125
Ala Gly Arg
    130
```

<210> 32982
<211> 84
<212> PRT
<213> A.fumigatus

<400> 32982

```
Gly Pro Glu Val Ala Lys Leu Lys Trp Gln Leu Ser Ala Lys Asn Asn
1               5                   10                  15
Pro Leu Cys Thr Met Leu Trp Cys Asn Thr Val Met Thr Lys Asp Met
            20                  25                  30
Phe Val Leu Trp Gly His Tyr Pro Trp Ser Ser Val Ile Lys Trp Cys
        35                  40                  45
Pro Gly Phe Ser His Trp Asn Tyr Cys His Tyr Pro Leu Thr Asp Arg
    50                  55                  60
Asp Tyr Ser Val Leu Thr Ser Asn Leu Glu Gly Ile Gln Tyr Tyr Pro
65                  70                  75                  80
Leu Thr Ser Pro
```

<210> 32983
<211> 80
<212> PRT
<213> A.fumigatus

<400> 32983

```
Ile Asn Val Glu Arg Lys Ile Arg Thr Met Phe Met Gly Arg Thr Trp
1               5                   10                  15
Leu Asn Arg Ile Ile Glu Asp Phe Ile Asn Cys Phe Asp Trp Phe Ile
            20                  25                  30
Arg Arg Arg Met Gln Asn Asp Asp Asn Gly Ala Lys Gln Thr Gln Gly
        35                  40                  45
Ala Ala Gln Phe Pro Gln Asn Ala Lys Ser Phe Met Gln Lys Ile Gly
    50                  55                  60
Pro Lys Asp Ser Thr Leu Arg Asp Ala Val Ser Gln Ala Arg Arg Thr
65                  70                  75                  80
```

<210> 32984
<211> 161
<212> PRT
<213> A.fumigatus

<400> 32984
Pro Lys Arg His Thr Met Thr Thr Ile Val Phe Val Pro Gly Ala Trp
1 5 10 15
Ile Thr Pro Glu Phe Tyr His Pro Phe Phe Asp Ala Leu Thr Lys Ala
20 25 30
Gly Cys Pro Val Arg Cys Ala Gly Tyr Pro Ser Leu Asp Pro Ala Asp
35 40 45
Pro Thr Ser Thr Asp Cys Lys Ala Asp Ser Asp Ala Ile Ala Ser Val
50 55 60
Ile Arg Pro Leu Val Glu Gly Glu Gly Arg Asp Val Leu Leu Val Met
65 70 75 80
His Ser Tyr Ala Gly Met Pro Gly Ala Ala Ala Ala Lys Gly Leu Ala
85 90 95
Lys Thr Glu Arg Met Gln Gln Gly Lys Ser Gly Gly Ile Val Gly Leu
100 105 110
Val Phe Ile Ala Ala Phe Leu Val Pro Glu Gly Leu Ser Cys Ala Gly
115 120 125
Leu Gln Gly Gly Asn Leu Pro Pro Trp Ile Leu Met Asp Lys Val Leu
130 135 140
Pro Pro Leu Pro Pro Thr Trp Asp Glu Ser Asp Gln Met Ser Asn Ala
145 150 155 160
Leu

<210> 32985
<211> 120
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (97),(105)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32985
Pro Tyr Asp Lys Val Asn Ile Pro Asp Asp Pro Val Gly Asn Phe Ala
1 5 10 15
Ala Asp Val Asp Glu Asp Val Ala Gln Ser Leu Glu Gly Ser Ile Arg
20 25 30
Pro His Ser Thr Val Ala Phe His Thr Pro Gln Pro Ala Pro Ala Trp
35 40 45
Ala Asp Pro Ala Tyr Ala Gly Arg Leu Ala Phe Ile Val Pro Thr Leu
50 55 60
Asp Lys Ala Ile Pro Glu Ala Ala Gln Arg Ala Met Ile Ala Ser Thr
65 70 75 80
Gln Thr Asp Trp Ile Val Glu Gly Met Val Cys Ser His Cys Ala Pro
85 90 95
Xaa Val His Arg Ile Asp Glu Cys Xaa Arg Leu Ala Ala Gly Phe Leu
100 105 110
Gly Val Phe Glu Val Thr Lys His
115 120

<210> 32986
<211> 91
<212> PRT

<213> A.fumigatus

<400> 32986
Ala Met Ala Thr Gly Asn Gln Val Asp Met Val Ile Trp Val Tyr Arg
1 5 10 15
Gly Val Gly Thr His Ile Tyr Pro Leu Gly Met Thr Gly Phe Ser Asn
20 25 30
Phe Phe Val Asn Leu Phe Val Cys Glu Ile Phe Tyr Thr Leu Ser Ile
35 40 45
Cys Glu Thr Lys Tyr Ser Ile Leu Met Phe Tyr Trp Arg Ile Phe Gly
50 55 60
Thr Thr Asn Ile Arg Ile Pro Ile Tyr Val Ile Phe Phe Leu Val Thr
65 70 75 80
Cys Trp Gly Leu Gly Ile Val Arg Arg Thr Ile
85 90

<210> 32987
<211> 527
<212> PRT
<213> A.fumigatus

<400> 32987
Phe Pro Arg Ala Arg Gly Thr Arg Ser Thr Ala Asp Ser Gly Ala Ser
1 5 10 15
Ala Arg Arg Tyr Ser Ala Met Thr Arg Trp Arg Ser Met His Ile Ser
20 25 30
Ala Ser Leu Thr Thr Pro Pro Gly Phe Arg Trp Trp His Ala Ser Asp
35 40 45
Ser Glu Pro Thr Trp Asp Ser Leu Gly Leu Thr Gly Tyr Arg Pro Leu
50 55 60
Gly Asp Ser Val Ile Asn His Ser Ala Glu Val Ala Gly Leu Ala Ser
65 70 75 80
Trp Leu His Leu Ala Pro Leu Cys Lys Ile Ile Gln Asn Ala Lys Val
85 90 95
Leu Asp His Tyr Thr Asn Cys Asp Val Lys Pro Lys Pro Leu Cys Asp
100 105 110
Ala Leu Gln Lys Phe Leu Trp Arg Leu Arg Ser Arg Gly Gln Ser Leu
115 120 125
Gln Tyr Val Asp Thr Asp Ile Ile Thr Ser Ile Leu Arg Asn Leu His
130 135 140
Glu Tyr Ser Gly Asp Val Cys Glu Phe Trp Glu Arg Leu Arg Arg Thr
145 150 155 160
Ile Glu Phe Glu Leu Ser Asp Thr Asp Ala Pro Lys Glu Leu Ala Lys
165 170 175
Ile Phe Asp Ser Pro Ser Pro Asp Ser Leu Ala Val Ser Gly Val Asp
180 185 190
Ala Val Asn Thr Ile Pro Lys Asp Phe Asn Ser Arg Ile Cys Val Pro
195 200 205
Ala Glu Gln Ala Lys Thr Met Arg Glu Gly Leu Ser Trp Tyr Leu Thr
210 215 220
Gln Lys Pro Gly Arg Trp Ala Leu Pro Pro Val Leu His Val Glu Leu
225 230 235 240
Tyr Arg His Lys Leu Asp Lys Ala Ala Arg Gln Trp Arg Leu Val Tyr
245 250 255
Asn Lys Val Asp Leu Asp Glu Glu Leu Asp Leu Thr Pro Tyr Leu Val
260 265 270

```
Asp Gly Gln Cys Gly Ser Tyr Val Leu Tyr Gly Tyr Ile Val His Arg
        275                 280                 285
Gly Arg Arg Thr Ser Gly Lys Phe Phe Ser Ile Leu Arg Pro Gly Gly
    290                 295                 300
Pro Gly Thr Arg Trp Leu Ala Phe Asp Asp Gly Ser Asp Asn Arg Val
305                 310                 315                 320
Glu Cys Leu Thr Arg Lys Thr Ala Leu Gly Pro His Leu Gly Leu Asp
                325                 330                 335
Glu Ser Gln Lys Val Asp His Lys Thr Gly His Asp Val Ala Ile Ala
            340                 345                 350
Val Met Tyr Ile Arg Gly Asp Val Val Ser Glu Phe Leu Pro Gly Pro
        355                 360                 365
Gln Gly Pro Trp Asp Val Ser Pro Ser Leu Lys Glu Tyr Tyr Glu Thr
    370                 375                 380
Gly Ile Tyr Pro Leu Ser Ser Met Ser Ala Gly Lys Pro Ala Glu Lys
385                 390                 395                 400
Glu Ile Gln Val Glu Val Tyr Ala Pro Pro Gln Tyr Asp Lys Leu Pro
                405                 410                 415
Ser Leu Phe Asp Ser Tyr Asp Leu Met Ser Gln Ala Lys Ala Ala Asn
            420                 425                 430
Lys Val Met Tyr Met Thr Val Pro Arg Ser Glu Asn Ile Val Glu Leu
        435                 440                 445
Arg Lys Lys Ile Ala Leu Trp Ala Ser Ala Gly Ser Glu Thr Gln Ala
    450                 455                 460
Ser Pro Glu Asn Ile Arg Leu Trp Gln Ile Gly His Thr Arg Asp Arg
465                 470                 475                 480
Phe Gly Pro Thr Leu Ala Phe Glu Arg Ile Ser Asp Leu Lys Ser Thr
                485                 490                 495
Leu Asp Leu Pro Val Pro Val Ala Arg Leu Trp Met Gln Val Val Ser
            500                 505                 510
Asp Gly Asn Phe Phe Phe Phe Phe Phe Phe Phe Cys Pro Leu Asp
        515                 520                 525
```

<210> 32988
<211> 243
<212> PRT
<213> A.fumigatus

<400> 32988

```
Ile Asp Ser Cys Gly Thr Arg Leu Met His Gly Ser Ile Asp Glu Ala
1               5                   10                  15
Lys Tyr Phe Ala Ile Arg Asp Pro Arg Asp Ala Val Val Ala Gln Arg
            20                  25                  30
Lys Thr Glu Glu Ala Val Val Glu Arg Ala Gly Ser Glu Ser Ser Asp
        35                  40                  45
Asp Arg Gln Tyr Thr Pro Glu Val Arg Ser Gly Gly Ala Glu Ala Ser
    50                  55                  60
Ser Ser Gly Asn Val Thr Glu Ser Asp Leu Ser Asn Gly Asp Arg Val
65                  70                  75                  80
Ser Val Glu Gln Pro Leu Pro Arg Ala Ser Asp Ser Glu Val Ser Glu
                85                  90                  95
Ser Ser Ser Gln Glu Thr Pro Asp Ser Ser Glu Ile Gln Pro Ser Asn
            100                 105                 110
Ala Ser Thr Glu Asp Asp Ala Ala Ile Ala Ala Ile Ile Ala Gln Asp
        115                 120                 125
Val Gln Gln Met Asp Ile Gln Leu Ala Glu Glu Ala Gln Gln Ser Pro
```

```
    130                 135                 140
Ile Arg Ala Glu Gln Ser Ser Asn Asp Thr Thr Gln Ser Glu Pro Ala
145                 150                 155                 160
Glu Gln Arg Ala Ala Ser Pro Ala Pro Glu Ala Met Ser Ser Thr Ser
                165                 170                 175
Glu Glu Pro Asp Val Pro Leu Pro Val Glu His Val Tyr Tyr Phe Ile
            180                 185                 190
Gln Ile Phe Asp Val Glu Ala His Ser Val Ala Tyr Gly Gly Leu Leu
        195                 200                 205
Pro Leu Pro Lys Gly Gly Glu Asn Gln Asp Arg Ser Ala Glu Ala Leu
    210                 215                 220
Glu Val Ala Glu Glu Lys Gly Ile Phe Arg Ser Gly Ser Gly Leu Met
225                 230                 235                 240
Ala Pro Leu
```

<210> 32989
<211> 231
<212> PRT
<213> A.fumigatus

<400> 32989

```
Ser Arg Cys Ser Arg Leu Thr Thr Val Cys Phe Ala Cys Arg Thr Thr
1               5                   10                  15
Ala His Arg Leu Arg Tyr Ser Val Ala Leu Ala Tyr Arg Phe Arg Ile
            20                  25                  30
Pro His Asn Arg Arg Ser His Gly Ser Pro Ser Ser Thr Gly Arg Leu
        35                  40                  45
His Tyr Leu Thr Asp Arg Ile Asn Met Cys Phe Leu Asp Ile Asp Asp
    50                  55                  60
Arg Pro Gly Pro Gly Val Arg Val Val Glu Tyr Arg Pro Gly Thr Leu
65                  70                  75                  80
Arg Val Ser Met Pro Gly Pro Arg Arg Arg Arg Ser Ser Cys Ser Ser
                85                  90                  95
Gly Ser Ser Ser Asp Ser Gly Ser Ser Ser Ser Ser Pro Ser Ser Ser
            100                 105                 110
Ser Ser Ser Cys His Ser Ser Ser Asn Ser Ser Ser Ser Asp Asp Thr
        115                 120                 125
Thr Val Val Ile Ala Pro Ser Pro Leu His His His His His Arg Tyr
    130                 135                 140
Gln Arg Tyr Ser Trp Tyr Ala Arg Ser Lys Ser Pro Glu Pro Glu Ser
145                 150                 155                 160
Ser Tyr Thr Thr Val Gln Arg Thr Arg Val Arg Thr Arg Ser Glu Ser
                165                 170                 175
Ile Ile Pro Phe Arg Arg Arg Phe Phe Asp Ser Pro Pro Arg Ser Pro
            180                 185                 190
Ser Pro Val Tyr Arg Cys Val Arg Tyr Val Glu Pro Gly Gly Trp Gly
        195                 200                 205
Arg Ser Arg Leu His His Pro Gly Arg Val Trp Glu Glu Glu Val Arg
    210                 215                 220
Phe Val Ser Gly Arg Gly Gly
225                 230
```

<210> 32990
<211> 198
<212> PRT

<213> A.fumigatus

<400> 32990

```
Lys Tyr Ser Ile Leu Tyr Val Ala Lys Arg Thr Arg Asn Arg Thr Leu
1               5                  10                  15
Ser Ile Arg Lys Lys Glu Pro Ala Arg His Arg Phe Arg Met Ser Thr
            20                  25                  30
Phe Arg Gly Leu Gln Ala Ala Pro Glu Leu Ser Arg Lys Met Ser Arg
        35                  40                  45
Ile Val Lys Gln Glu Asn Ser Val Ile Ser Ala His Glu Ala Ala Gly
    50                  55                  60
Arg Glu Arg Val Asn Ile Ala Ala Gln Leu Ser Glu Trp Gly Glu Gly
65                  70                  75                  80
Thr Glu Asp Asp Ala Val Ser Asp Ile Ser Asp Lys Leu Gly Val Leu
                85                  90                  95
Met Ala Glu Ile Gly Glu Gln Glu Asp Asn Phe Ala Gln Ser Leu Glu
            100                 105                 110
Asp Tyr Arg Ser Ile Leu Lys Ser Ile Arg Asp Thr Glu Thr Ser Val
        115                 120                 125
Gln Pro Ser Arg Asp His Arg Ala Lys Ile Ala Asp Asp Ile Gln Arg
    130                 135                 140
Leu Lys Leu Lys Gly Glu Gln Ser Asn Ala Lys Val Glu Val Leu Glu
145                 150                 155                 160
Gln Glu Leu Val Arg Ala Glu Ala Asn Asn Leu Val Ala Glu Ala Gln
                165                 170                 175
Leu Thr Asn Val Val Arg Met Ala Ser Arg Val Tyr Leu Ile Ala Ser
            180                 185                 190
Ala Gly Leu Arg Phe Val
        195
```

<210> 32991
<211> 101
<212> PRT
<213> A.fumigatus

<400> 32991

```
Ala Arg Ile Pro Gly Val Ala Leu Val Ser Met Met Met Val Met Gln
1               5                  10                  15
Arg Thr Trp Arg Asn Asp Asn Gly Gly Ile Ile Ala Thr Ala Ala Val
            20                  25                  30
Ala Ala Thr Met Thr Ala Arg Ala Ala Ala Ala Trp Ala Gly Thr Gly
        35                  40                  45
Ala Ala Thr Val Thr Ala Thr Thr Ala Thr Ala Ala Ala Ser Ala Pro
    50                  55                  60
Thr Arg Thr Trp His Gly Asp Ser Lys Gly Pro Arg Ala Ile Phe Asp
65                  70                  75                  80
Asp Ser His Ala Gly Pro Arg Ser Val Val Asn Val Glu Glu Ala His
                85                  90                  95
Val Asp Ser Val Ser
            100
```

<210> 32992
<211> 529
<212> PRT
<213> A.fumigatus

<400> 32992

```
Val Asp Pro Thr Phe Thr Asp Ser Met Gly His Phe Thr Arg Arg Phe
1               5                  10                  15
Glu Gln Leu Leu Asn Asn Leu Asp Lys Lys Asn Ser Met Thr Asp Cys
            20                  25                  30
Cys Ile Glu Thr Tyr Leu Met Lys Ser Glu Arg Lys Phe Tyr Asn Met
        35                  40                  45
Tyr Asn Asp Ala Gln Leu Lys Lys His His Ala Lys Glu Ser Ile Ser
    50                  55                  60
Ser Ser Ala Ser Pro Glu Gln Leu Asp His Glu Thr Gln Tyr Asn Arg
65                  70                  75                  80
Leu Ser Thr Ala Thr Ala Gly Ser Asp Pro Ser Asp Ser Asp Glu Ile
                85                  90                  95
Asp Arg Trp Leu Ser Arg Leu Gly Tyr Arg Arg Pro Val Ala Ile Gln
            100                 105                 110
Arg Phe Met Arg Arg Arg Ile Gly Thr Trp Pro Val Tyr Ala Leu Phe
        115                 120                 125
Leu Gly Leu Gly Gln Ile Ile Ala Thr Asn Ser Ala Gln Ile Thr Leu
    130                 135                 140
Leu Val Gly Gln Val Gly Glu Thr Ala Thr Lys Leu Tyr Val Ile Ala
145                 150                 155                 160
Ala Ile Tyr Cys Val Ser Ser Ile Ser Trp Trp Phe Met Tyr Ala Arg
                165                 170                 175
Leu Pro Ala Val Ile Val Leu Ser Leu Pro Trp Phe Ile Tyr Cys Leu
            180                 185                 190
Ala Phe Ile Val Ile Gly Val Ser Pro Phe Gly Leu Ser Glu Val Gly
        195                 200                 205
Arg Gly Trp Ala Gln Asn Val Ala Ala Gly Val Tyr Ala Val Ala Ser
    210                 215                 220
Ser Ser Gly Ser Leu Phe Phe Ala Leu Asn Phe Gly Asp Gln Gly Ala
225                 230                 235                 240
Val Pro Val Lys Asp Trp Met Phe Arg Ala Ser Leu Ile Gln Gly Ile
                245                 250                 255
Ser Gln Leu Tyr Thr Val Ala Leu Trp Tyr Trp Ser Ser Lys Val Thr
            260                 265                 270
Ala Thr Glu Ile Gly Gly Val Ser Thr Phe Ala Leu Ser Thr Trp Arg
        275                 280                 285
Leu Thr Ala Val Val Met Pro Ile Ala Ala Leu Cys Phe Ala Ile Gly
    290                 295                 300
Val Ile Leu Ala Leu Gly Leu Pro Lys Tyr Tyr Arg Gln Ala Pro Ser
305                 310                 315                 320
Arg Ile Leu Phe Phe Tyr Thr Ser Leu Phe Arg Arg Arg Ile Val Leu
                325                 330                 335
Trp Phe Phe Leu Met Val Ile Val Gln Asn Trp Phe Leu Ala Ala Ala
            340                 345                 350
Phe Gly Arg Asn Trp Ser Phe Leu Trp Ser Ser Lys His Ala Lys Thr
        355                 360                 365
Trp Glu Val Val Ile Leu Val Val Gly Phe Phe Ile Ile Ile Trp Val
    370                 375                 380
Leu Ile Leu Phe Ala Phe Arg Ala Leu Ser Lys Glu His Ser Trp Ile
385                 390                 395                 400
Leu Pro Val Phe Gly Leu Ser Leu Gly Ser Pro Arg Trp Ala Gln Thr
                405                 410                 415
Trp Trp Gly Thr Ser Asn Ile Gly Tyr Tyr Leu Pro Trp Ala Gly Gly
            420                 425                 430
Leu Thr Ser Gly Ala Ile Val Ser Arg Cys Leu Trp Leu Trp Leu Gly
```

```
        435                 440                 445
Val Leu Asp Glu Ile Gln Gln Val Gly Leu Gly Met Ile Leu Leu Gln
    450                 455                 460
Thr Leu Thr Arg Val His Val Cys Phe Val Leu Leu Ala Ala Gln Ala
465                 470                 475                 480
Val Gly Ser Val Ala Thr Ile Cys Ala Arg Gly Phe Ala Pro Asn Arg
                485                 490                 495
Leu Gly Pro Asp Gly Ile Ser Pro Asn Ile Gly Thr Ser Val Asp Lys
            500                 505                 510
Ile Ala Asn Ala Trp Phe Trp Ile Ala Leu Phe Phe Gln Leu Leu Ala
        515                 520                 525
Arg
```

<210> 32993
<211> 146
<212> PRT
<213> A.fumigatus

<400> 32993

```
Ser Pro Ser Leu Ser Ser Glu His Ser Glu Thr Thr Phe Ile Met Ser
1               5                   10                  15
Lys Pro Leu Ser His Ile Lys Ile Ala Leu Arg Arg Ser Ser Glu Arg
            20                  25                  30
Gly Tyr Ala Glu His Gly Gly Trp Leu Lys Thr Tyr His Thr Phe Ser
        35                  40                  45
Phe Ala Asp Tyr Phe Asp His Arg Phe Leu Asn Phe Gly Cys Leu Arg
    50                  55                  60
Val Leu Asn Glu Asp Arg Val Ala Ala Arg Asn Gly Phe Pro Leu His
65                  70                  75                  80
Thr His Arg Asp Ala Glu Ile Phe Ser Tyr Ile Leu Ser Gly Glu Leu
                85                  90                  95
Thr His Arg Asp Ser Met Ile Lys Lys Gly Ala Glu Gly Ala Gln Gly
            100                 105                 110
Lys Gln Phe Tyr Arg Met Arg Arg Gly Asp Val Gln Phe Thr Thr Gly
        115                 120                 125
Gly Thr Gly Lys Tyr Gln Leu Leu Met His Tyr Asp Val Ala Met Cys
    130                 135                 140
Arg Leu
145
```

<210> 32994
<211> 177
<212> PRT
<213> A.fumigatus

<400> 32994

```
Thr Leu Thr Arg Leu Ser Gly Ile Ala His Ser Glu Gln Asn Glu Ser
1               5                   10                  15
Ser Lys Pro Val His Phe Leu Gln Ile Trp Val Leu Pro Trp Lys His
            20                  25                  30
Gly Leu Lys Pro Gln Tyr His Thr Met Ser Phe Ser Glu Glu Ala Lys
        35                  40                  45
Arg Lys Ala Phe Val Pro Ile Leu Ser Pro Leu Ala Ala Gly Pro Glu
    50                  55                  60
Ala Asn Pro Ala Glu Glu Glu Ala Ala Arg Pro Lys Ile Pro Asp Thr
```

65 70 75 80
Ile Pro Ile His Ala Asp Phe Leu Met Gly Ala Gly Ile Ile Ala Pro
85 90 95
Asn Thr Thr Phe Lys Trp Asn Val Gly Ala Gly Asp Val Val Ser Ser
100 105 110
Arg Lys Lys Arg Asn Val Tyr Ile His Leu Pro Met Thr Lys Gln Gly
115 120 125
Lys Ala Lys Ile Lys Leu Asp Gly Arg Glu Asp Ala Val Leu Glu Glu
130 135 140
Gly Asp Gly Ala Phe Val Thr Gly Val Asn Ala Gly Asp Met Leu Ala
145 150 155 160
Val Glu Ser Ile Gly Glu Ala Glu Ala Glu Val Ile Val Leu Asp Ser
165 170 175
Asn

<210> 32995
<211> 171
<212> PRT
<213> A.fumigatus

<400> 32995
Thr Thr Ser Cys Asp Thr Ala Val Ser Ala Arg Ala Ser Arg Ala Gly
1 5 10 15
Pro Arg Phe Glu Gly Asn Ala Pro Val Cys Ser Ile His Ser Ala Gln
20 25 30
Ser Ala Gln Phe Leu Ile Ala Trp Leu Glu Ser Thr His Cys His Ile
35 40 45
Ile Met His Gln Glu Leu Val Leu Thr Ser Pro Pro Arg Arg Glu Leu
50 55 60
His Ile Thr Pro Ser His Pro Val Glu Leu Leu Pro Leu Cys Thr Phe
65 70 75 80
Arg Ser Phe Leu Asp His Ala Ile Ala Val Cys Gln Leu Thr Ala Glu
85 90 95
Asn Ile Ala Glu Asp Leu Cys Ile Pro Val Arg Met Gln Trp Glu Ser
100 105 110
Ile Pro Ser Ser Asn Ala Val Phe Val Gln Tyr Ser Gln Ala Thr Glu
115 120 125
Val Glu Glu Ala Val Val Glu Val Val Gly Glu Ala Glu Gly Val Val
130 135 140
Cys Phe Gln Pro Ala Ala Val Leu Ser Ile Ser Ala Leu Thr Gly Ala
145 150 155 160
Thr Glu Cys Asp Leu Asp Val Ala Glu Arg Phe
165 170

<210> 32996
<211> 72
<212> PRT
<213> A.fumigatus

<400> 32996
Pro Leu Thr Thr Ala Ala Leu Ala Leu Pro Arg Ala Ile Pro Leu Tyr
1 5 10 15
Ala Asn Gln Val Thr Asn Ser Gln Ser Arg Phe Pro Asn Arg Arg Leu
20 25 30
Leu Asp Phe Arg Asp Leu Leu Ile Pro Pro Leu Leu Asn His Gln Ile

```
        35                  40                  45
Asn Ile Ile Ile His Thr Arg Pro Tyr Ile Pro Thr Ala Phe Gly Thr
    50                  55                  60
Asp Leu Phe His Thr Pro Asp Phe
65                  70

<210> 32997
<211> 430
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (415)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 32997
Asp Cys His Met Ser Asp Ser Arg Gln Gly Ser Glu Ser Ser Ala Ala
1               5                   10                  15
Thr Tyr His Ser Gln Pro Glu Ser Glu Asn Thr Gln Asp Ser Val Gly
            20                  25                  30
Pro Glu Ser Pro Gly Ser Pro Pro Ala Pro Pro Gly Ser Pro Arg Ser
        35                  40                  45
Pro Glu Gln Gln Ser Gln Asp Gly Asp Asn Gln Glu Ile Pro Asn Ile
    50                  55                  60
Glu Thr Thr Pro Lys Ser Gly Glu Asn Gly Glu Gly Ser Gln Lys Arg
65                  70                  75                  80
Gln Arg Val Arg Phe Arg Ser Ala Ile Ser Val Asp Tyr Pro Gln Pro
                85                  90                  95
Gly Gly Pro Glu Ser Ser Glu Asp Glu Arg Ser Ile Gln Glu Lys Gln
            100                 105                 110
Lys Ala Gln Arg Asp Gln Ala Gln Arg Gln Gly Gln Pro His Leu Met
        115                 120                 125
Ser Thr Pro Tyr Val His Gly Ser Leu Asp Val Thr Glu Thr Pro Leu
    130                 135                 140
Lys Glu Arg Thr Thr Gln Glu Asp Leu Gln Gln Ala Glu Lys Thr Pro
145                 150                 155                 160
Val Asp Lys Lys Pro Asp Gly Ile Gly Ala Ala Ala Ala Val Gly Asp
                165                 170                 175
Val Ser Arg Thr Ala Lys Asp Lys Leu Arg Trp Leu Trp Asp Thr Val
            180                 185                 190
His Gly Lys Leu Ser Lys Trp Ser Asp Arg Leu Gly Arg Pro Glu Arg
        195                 200                 205
Gly Gly Asp Asp Leu Gly Pro Gly Val Tyr His Asn Glu Trp Thr Ser
    210                 215                 220
Gly Gly Asn Ala Pro Leu Gly Asp Leu Thr Asp Asn Lys His Lys Thr
225                 230                 235                 240
His Glu Glu Lys Lys Ser His Gln Ala Thr Ser Thr Ser Glu Ala His
                245                 250                 255
Arg Leu Val Arg Glu Leu Thr Gln Asp Gln Ser Gly Asn Arg Arg Lys
            260                 265                 270
Thr Arg Gly Lys Pro Tyr Pro His Thr Asp Thr Gln Gly Gly Gln Gly
        275                 280                 285
Gly Gln Gly Asn Asn Ala Ile Glu Ser Gly Leu Arg Tyr Arg Ala Gly
    290                 295                 300
Gly Gly Gly Val Leu Ala Gln Leu Met Lys Leu Asn Gly Gly Met Gln
```

```
305                 310                 315                 320
Gln Gly Gly Gln Ala Gly Gln Ala Gly Gln Gly Gly Gln Arg Ser Pro
                325                 330                 335
Ser Asp Thr Gly Thr Ser Gly Thr Thr Thr Pro Lys Lys Glu Lys Leu
            340                 345                 350
Lys Trp Tyr Lys Asn Lys Gln His Thr Arg Ser Thr Ser Thr Leu Val
        355                 360                 365
Gly Ala Ser Gly Ser Met Ser Gly Ala Ser Thr Pro Val Ser Ser Glu
    370                 375                 380
Val Leu Ser Ala Ala Ser Lys Arg Leu Gly Gly Gln Gln Phe Gln His
385                 390                 395                 400
Gly Gly Arg Gly Arg Leu Glu Asp Gln Ile Gln Val Asp Val Xaa Ile
                405                 410                 415
Ala Glu Ile Met Arg Ala Arg Gly Thr Leu Cys Asn Trp Cys
            420                 425                 430
```

<210> 32998
<211> 176
<212> PRT
<213> A.fumigatus

<400> 32998

```
Gly Arg Thr Gln Leu Pro Ser Lys Ser Pro Arg Asp Thr Asn Leu Ile
1               5                   10                  15
Asp Cys Asn Met Lys Leu Val Trp Ile Ala Gln Arg Leu Gly Arg Gln
            20                  25                  30
Gly Gln Arg Arg Lys Val Ala Arg Ile Ala Ser Ser Leu Phe Phe Ile
        35                  40                  45
Val Ala Leu Thr Ala Leu Cys Leu Tyr Ile Leu Leu Ala Tyr Phe Leu
    50                  55                  60
Ala Asn Asp Pro Arg Leu Val Pro Val Ala Phe Gln Thr Ala Arg Ser
65                  70                  75                  80
Ile Leu Leu Val Thr Ala His Pro Asp Asp Glu Thr Leu Phe Phe Ser
                85                  90                  95
Pro Ser Ile Thr Tyr Arg Arg Asp Asp Pro His Val Gln Arg Ala Leu
            100                 105                 110
Leu Val Ile Ser Ser Gly Gly Leu Asp Ile His Ser Tyr Arg Leu Met
        115                 120                 125
Leu Thr Cys Leu Gly Asn Tyr Glu Gly Ile Gly Glu Arg Arg Gln Gln
    130                 135                 140
Glu Ile His Asp Ser Cys Ser Val Leu Gly Ile Val Pro Asp Arg Cys
145                 150                 155                 160
Val Val Leu Gly Leu His Gln Gly Arg Lys Gly Pro Arg His Pro Arg
                165                 170                 175
```

<210> 32999
<211> 169
<212> PRT
<213> A.fumigatus

<400> 32999

```
Pro Arg Cys Gly Thr Ala Pro Cys Gly Pro Ser Thr Ser Arg Thr Thr
1               5                   10                  15
Ser Arg Thr Thr Asn Ser Ser Thr Ser Thr Thr Ser Thr Ser Thr Pro
            20                  25                  30
Ser Thr Pro Ser Ser Ser Ser Ser Ala Gln Thr Arg Ile Pro Arg Ala
```

```
        35                  40                  45
Leu Pro Arg Pro Thr Ala Pro Pro Ala Pro Ser Thr Ser Ala Thr Pro
    50                  55                  60
Ser Asn Ser Thr Ile Ala Thr Pro Pro Ala Ile Trp Pro Gly Thr Ala
65                  70                  75                  80
Ser Ala Ser Arg Ser Ser Pro Gly Ser Arg Ala Gln Gly Thr Asp Gly
                85                  90                  95
Val Gly Lys Thr Cys Trp Arg Ala Gly Thr Arg Cys Ala Cys Ala Ala
            100                 105                 110
Ala Gly Ala Gly Trp Ser Arg Ser Met Arg Arg Ile Ser Ser Ala Gln
        115                 120                 125
Thr Pro Cys Ala Ser Gly Arg Met Thr Arg Ser Ser Gly Met Arg Arg
    130                 135                 140
Ser Ala Val Trp Cys Met Arg Met Cys Arg Met Arg Arg Arg Met Ser
145                 150                 155                 160
Thr Arg Phe Arg Pro Arg Gly Cys Ile
                165
```

<210> 33000
<211> 144
<212> PRT
<213> A.fumigatus

<400> 33000

```
Arg Ala Gly Thr Ala Asn Arg Pro Ser Arg Pro Arg Gln Arg Leu Pro
1               5                   10                  15
Gln Pro Val Arg Lys Gln Gln Arg Ala Lys Arg Pro Ala Ser Ala Gly
            20                  25                  30
Gly Pro Arg Ala Ala Asn Pro Lys Gln Gln Val His Arg Gly Gly Cys
        35                  40                  45
Arg Gln Ala His Arg Val Arg Arg Leu Pro Pro Arg His Ala Pro Arg
    50                  55                  60
Trp Pro Gln Thr His Gln Ala His Arg Leu Pro Ser His Ala Ala Glu
65                  70                  75                  80
Pro Arg Pro Ala Ala Pro Arg Arg Ala Glu Pro Pro His Val Arg Gln
                85                  90                  95
Thr Pro Leu Pro Gln Arg Arg Leu Leu Pro Pro Arg Arg Arg Pro Pro
            100                 105                 110
Ala Pro Leu Leu His Lys Arg Ala Ser Pro Ala His Cys Pro Gly Leu
        115                 120                 125
Pro Arg Arg Leu Arg Arg Arg Leu Gln Gln Pro Leu Gln Ile Leu Arg
    130                 135                 140
```

<210> 33001
<211> 615
<212> PRT
<213> A.fumigatus

<400> 33001

```
Leu Cys Pro Thr Ser Asn Asp Glu Phe Met Asn His Ser Thr Ala Arg
1               5                   10                  15
Val Leu Pro Phe Gly Arg Ser Arg Leu His Thr Ile Pro Asp Ile Thr
            20                  25                  30
Arg Tyr Thr Ile Thr Asp Pro Leu Gly Pro Leu Ala Leu His Leu Ala
        35                  40                  45
Arg Lys Thr His Gln Leu Leu Gln Ser Leu Met Ser Phe Lys Leu Ala
```

```
    50                  55                  60
Leu Pro Asn Val Ser Gly Cys Ala Asn Pro Ala Ala Gln Asn Pro Ser
65                  70                  75                  80
Ala Tyr Arg Thr Leu Ser Phe Asp Phe Asp Gly Val Ala His Ile Thr
                85                  90                  95
Asp Cys Leu Gly Cys Pro Ala Val Ala Arg Pro Pro Lys Arg Ile Pro
            100                 105                 110
Ser Lys Leu Arg Leu Asn Arg Ser Phe Ser Val Gln Lys Leu Arg Gly
        115                 120                 125
Gly Arg Val Gln Pro Pro Thr Met Ala Trp Leu Arg Val Glu Phe Arg
    130                 135                 140
Leu Leu Val Ser Arg Leu Leu Pro Phe Pro Ser Ser Gly Tyr Ser Val
145                 150                 155                 160
Leu Pro Gln Ser Ser Arg Ser Gly Arg Ala Val Ser Phe Ala Gln Ser
                165                 170                 175
Pro Arg Ala Ala Cys Arg Cys Leu Thr Leu Leu Val Arg Ile Gly Leu
            180                 185                 190
Val Val Leu Leu Cys Asn Ile Ile Leu Thr Pro Ile Phe Trp Pro Ser
        195                 200                 205
Tyr Thr His Leu Pro Pro Cys Tyr Glu Asn Leu Gln Thr Ile Ala Ser
    210                 215                 220
Asn Ser Asp Thr Pro Gly Arg Gly Asn Thr His Asn Glu Lys Val Phe
225                 230                 235                 240
Ile Ala Ala Ile Leu Tyr Asp Arg Thr Gly Glu Leu Ala Gly Gly Pro
                245                 250                 255
Trp Gly Asp Ala Leu Val Gln Leu Ile Asp Leu Leu Gly Pro Asp Asn
            260                 265                 270
Val Phe Leu Ser Leu Tyr Glu Asn Asn Ser Gly Pro Lys Gly Gln Gln
        275                 280                 285
Ala Leu Glu Ala Leu Ala Gln Arg Ile Gln Ser Asn Lys Ser Ile Val
    290                 295                 300
Val Asp Val Asp Lys His Thr Ala Phe Asp Ala Phe Pro Arg Val Thr
305                 310                 315                 320
Leu Pro Asp Gly His Lys Arg Ile Lys Arg Ile Asp Tyr Leu Ala Thr
                325                 330                 335
Leu Arg Asn Arg Ala Leu Arg Pro Leu Asp Glu Pro Asn His Leu Thr
            340                 345                 350
Tyr Asp Lys Leu Leu Tyr Leu Asn Asp Val Tyr Phe His Pro Val Asp
        355                 360                 365
Ala Leu Gln Leu Leu Phe Cys Thr Asn Ala His Pro Pro Arg Thr Ala
    370                 375                 380
Pro Ala Tyr Arg Ala Ala Cys Ala Val Asp Phe Ser Asn Pro Phe Lys
385                 390                 395                 400
Phe Tyr Asp Ser Tyr Ala Thr Arg Asp Leu Ala Gly Tyr Gly Ile Gly
                405                 410                 415
Leu Pro Phe Phe Pro Trp Phe Thr Ser Ala Gly His Gly Arg Ser Arg
            420                 425                 430
Glu Asp Val Leu Ala Gly Arg Asp Ala Val Arg Val Arg Ser Cys Trp
        435                 440                 445
Gly Gly Met Val Ala Phe Asp Ala Ser Tyr Phe Gln Arg Ala Asn Pro
    450                 455                 460
Val Arg Phe Arg Ala Asp Asp Glu Val Phe Trp Asp Ala Ser Glu Cys
465                 470                 475                 480
Cys Leu Val His Ala Asp Val Gln Asp Ala Pro Glu Asp Val Asp Ala
                485                 490                 495
Ile Pro Ala Thr Gly Val Tyr Met Asn Pro Phe Val Arg Val Ala Tyr
```

```
            500                 505                 510
Thr Thr Arg Thr Leu Ala Trp Leu Gly Thr Thr Arg Arg Phe Glu Gly
        515                 520                 525
Leu Tyr Val Arg Val His Asp Leu Leu Asn Arg Ala Val Gly Leu Pro
    530                 535                 540
Arg Glu Asn Pro Arg Arg Thr Glu Val Pro Gly Ser Lys Val Lys Arg
545                 550                 555                 560
Glu Val Trp Val Pro Glu Glu Gly Leu His Asn Gly Gly Ser Phe Arg
                565                 570                 575
Leu Val Glu Val Thr Ala Gly Asn Asp Gly Phe Cys Gly Arg Arg Gly
            580                 585                 590
Met Glu Val Val Val Glu Asp Arg Arg Pro Gly Gln Asp Gly Phe Glu
        595                 600                 605
Ala Val Pro Leu Pro Ser Arg
    610                 615

<210> 33002
<211> 64
<212> PRT
<213> A.fumigatus

<400> 33002
Thr His Leu Ser Thr Leu Leu Ala Ile Met Gln Leu Lys Leu Phe Ala
1               5                   10                  15
Leu Thr Leu Ala Ala Ala Val Ser Met Val Asn Gly Tyr Pro Ile Thr
            20                  25                  30
Gly Asn Gly Val Asn Cys Arg Ala Gly Pro Ser Thr Asn Asp Lys Val
        35                  40                  45
Ile Lys Ser Tyr Ala Lys Gly Thr Asp Val Thr Leu Ser Cys Gln Thr
    50                  55                  60

<210> 33003
<211> 122
<212> PRT
<213> A.fumigatus

<400> 33003
Leu Gly Tyr Leu Leu Tyr Arg Lys Ala Asn Ala Ile Gly Arg Ser Ser
1               5                   10                  15
Lys Thr Val Arg Glu Phe Leu Glu Arg Asn His Gln Asp Asp Met Asp
            20                  25                  30
Arg Glu Gln Thr Ile Gln Leu Thr Ile Lys Ser Leu Leu Glu Val Val
        35                  40                  45
Gln Thr Gly Ala Lys Asn Ile Glu Val Ala Ile Met Ala Pro Gly Lys
    50                  55                  60
Thr Ile Glu Met Leu Pro Asp Asp Gln Ile Glu Ala Tyr Val Lys Ser
65                  70                  75                  80
Ile Glu Thr Glu Lys Gln Glu Glu Ala Ala Lys Lys Lys Thr Gly Arg
                85                  90                  95
Thr Gly Thr Thr Thr Ala Ala Ile Leu Thr Arg Pro Gly Gly Gly Glu
            100                 105                 110
Thr Gly Glu Ser Thr Arg Glu Ser Ala Asp
        115                 120

<210> 33004
<211> 149
```

<212> PRT
<213> A.fumigatus

<400> 33004
Arg Leu Pro Ser Pro Met Asp Pro Pro Ala Gly Phe Gly Met Gly Pro
1 5 10 15
Asn Ser Met Thr Ser Thr Pro Ala Pro Gly Pro Phe Thr Ser Ala Ala
20 25 30
Gly Gly Phe Gly Gly Phe Asn Gln Gln Phe Ala Ala Pro Pro Asn Asn
35 40 45
Tyr Ala Leu Pro Ser Gly Leu Gly Ser Ala Pro Gly Ala Tyr Pro Pro
50 55 60
Met Gly Gln Met Asn Ala Ala Tyr Gly Ser Thr Ser Ala Ser His Thr
65 70 75 80
Thr Ser Ser Phe Ser Asn Pro Ala Thr Gln Ala Ala Phe Ser Gly Ala
85 90 95
Asp His Thr Thr Ser Thr Ser Thr Ser Asn Gly Gly Phe Tyr Ala Thr
100 105 110
Asp Gly Ser Asn Asp Pro Phe Ala Phe Leu Ser Thr Gly Leu Gly Gly
115 120 125
Leu Thr Val Ser Asp Asp Ala His Ser Arg Arg Asn Gly Thr Gly Ala
130 135 140
Ser Lys Ser Pro Ala
145

<210> 33005
<211> 140
<212> PRT
<213> A.fumigatus

<400> 33005
Ile Gly Thr Cys Ala Val Gly Val Lys Gly Lys Asp Val Val Val Leu
1 5 10 15
Gly Cys Glu Lys Arg Ser Ala Leu Lys Leu Gln Asp Thr Arg Ile Thr
20 25 30
Pro Ser Lys Ile Ala Gln Leu Asp Asn His Ala Val Leu Ala Phe Ala
35 40 45
Gly Leu Asn Ala Asp Ala Arg Ile Leu Ile Asp Lys Ala Arg Leu Glu
50 55 60
Ala Gln Ser His Arg Leu Thr Val Glu Asp Pro Val Thr Ile Glu Tyr
65 70 75 80
Ile Thr Lys Tyr Ile Ala Ser Val Gln Gln Arg Tyr Thr Gln Ser Gly
85 90 95
Gly Val Arg Pro Phe Gly Ile Ser Thr Leu Val Val Gly Phe Asp Pro
100 105 110
Asn Asp Lys Val Pro Arg Leu Tyr Met Thr Glu Pro Ser Gly Ile Tyr
115 120 125
Ser Ala Trp Tyr Val Ala Ser Trp Leu Gly Gly Glu
130 135 140

<210> 33006
<211> 165
<212> PRT
<213> A.fumigatus

<400> 33006

```
Pro Gly Leu Ile Leu Ala Ser Val Ala Ala Arg Asn Arg Val Pro Ile
1               5                  10                  15
Thr Thr Pro Val Ala Pro Arg Gln Ser Ala Ala Ala Ala Pro Arg Pro
            20                  25                  30
Ser Ala Ile Pro Pro Ala Ala Asn Thr Gly Ile Cys Ala Gly Arg Gln
        35                  40                  45
Ser Ile Ile Ser Gly Arg Arg Ala Ile Thr Pro Arg Pro Ser Leu Ala
    50                  55                  60
Arg Pro Cys Pro Pro Ala Ser Ala Pro Cys Thr Thr Ile Thr Ser Gly
65                  70                  75                  80
Ser Ser Leu Pro Cys Ala Ser Ser Leu Ala Ser Ala Ser Val Pro Ile
                85                  90                  95
Trp Ile Gln Met Arg Val Asp Gly Asp Ala Cys Arg Ile Arg Arg Asp
            100                 105                 110
Gln Val Ser Arg Ser Phe Cys Pro Trp Arg Gly Ala Lys Ser Gln Ala
        115                 120                 125
Ala Gln Gly Leu Tyr Leu Leu Met Val Asp Met Ala Thr Ser Arg Ser
    130                 135                 140
Ser Leu His Ser Trp Lys Pro Met Pro Thr Gly Arg Met Gly Trp Phe
145                 150                 155                 160
Cys Ser Ala Asp Gly
                165
```

<210> 33007
<211> 375
<212> PRT
<213> A.fumigatus

<400> 33007

```
Leu Val Ser Ala His Glu Pro Leu Leu Leu Arg Lys Pro Pro Asn Lys
1               5                  10                  15
Met Ser Pro Leu Ile Thr Thr Ile Ser Arg Ser Tyr Pro Trp Met Lys
            20                  25                  30
Thr Pro Leu Ile Val Ser Ala Pro Met Arg Val Thr Ser Gly Pro Thr
        35                  40                  45
Leu Ala Val Ala Val Ser Arg Ala Gly Gly Leu Gly Phe Ile Gly Pro
    50                  55                  60
Gly Val Lys Thr Gln Asp Ile Ser Ser Asp Leu Gln Thr Ala Ser Ser
65                  70                  75                  80
Leu Ile Glu Ser Leu Ser Ala Ser Gln Ser Gln Pro Ser Ala Leu Gln
                85                  90                  95
Asn Gln Pro Ile Leu Pro Val Gly Ile Gly Phe Gln Leu Trp Ser Asp
            100                 105                 110
Asp Leu Glu Val Ala Met Ser Thr Ile Ser Lys Tyr Lys Pro Cys Ala
        115                 120                 125
Ala Trp Leu Phe Ala Pro Arg His Gly Gln Lys Asp Leu Asp Thr Trp
    130                 135                 140
Ser Arg Arg Ile Arg His Ala Ser Pro Ser Thr Arg Ile Trp Ile Gln
145                 150                 155                 160
Ile Gly Thr Leu Ala Glu Ala Arg Glu Leu Ala Gln Gly Ser Glu Glu
                165                 170                 175
Pro Asp Val Ile Val Val Gln Gly Ala Glu Ala Gly Gly His Gly Arg
            180                 185                 190
Ala Asn Asp Gly Leu Gly Val Met Ala Leu Leu Pro Glu Met Met Asp
        195                 200                 205
Cys Leu Pro Ala His Ile Pro Val Phe Ala Ala Gly Gly Ile Ala Asp
```

```
    210                 215                 220
Gly Arg Gly Ala Ala Ala Ala Leu Cys Leu Gly Ala Thr Gly Val Val
225                 230                 235                 240
Met Gly Thr Arg Phe Leu Ala Ala Thr Glu Ala Arg Ile Ser Pro Gly
                245                 250                 255
Tyr Gln Arg Glu Ile Val Arg Ala Ser Asn Gly Ala Val Ser Thr Thr
            260                 265                 270
Arg Thr Leu Leu Tyr Asn Arg Leu Arg Gly Thr Val Gly Trp Pro Glu
        275                 280                 285
Glu Tyr Ser Pro Arg Thr Ile Ile Asn Lys Ser Phe Ile Glu His Gln
    290                 295                 300
Ala Gly Arg Pro Phe Glu Glu Leu Lys Ala Leu His Asp Glu Ala Leu
305                 310                 315                 320
Lys Ala Gly Asp Ala Gly Trp Gly Pro Glu Gly Arg Leu Ala Thr Tyr
                325                 330                 335
Ala Gly Ala Ala Ile Gly Leu Ile His Asp Val Lys Asp Ala Glu Thr
            340                 345                 350
Ile Val Arg Asp Val Gln Glu Glu Val Leu Gln Arg Leu Ser Asn Val
        355                 360                 365
Gln Lys Ala Asn Ser Ala Gln
    370                 375
```

<210> 33008
<211> 62
<212> PRT
<213> A.fumigatus

<400> 33008

```
Ala Tyr Leu Phe Val Tyr Trp Val Trp Asp Thr Thr Asn Ser Gln Lys
1               5                   10                  15
Asn Arg Phe Arg Gln Gln Glu Arg Gly Thr Met Phe Ser Arg Lys Thr
            20                  25                  30
Phe Pro Gln Leu Pro Trp Gln Thr Leu Lys Asn Pro Lys Thr Ile Thr
        35                  40                  45
Ala Ala Asp Gly Ser Lys Ile Leu Val Asp Gly Trp Cys Lys
    50                  55                  60
```

<210> 33009
<211> 98
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (11),(18)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33009

```
Thr Pro Val Thr Glu Met Gln Lys Ile Ala Xaa Tyr Asp Lys Asp Ser
1               5                   10                  15
Ser Xaa Gly Val Asp Tyr Leu Leu Ser Leu Pro Thr Cys Asn Gly Arg
            20                  25                  30
Val Gly Ala Thr Gly Met Cys Leu Gly Gly His Leu Ala Tyr Arg Cys
        35                  40                  45
Ala Leu Asp Ser Arg Val Lys Ala Ala Val Cys Tyr Phe Ala Thr Asp
    50                  55                  60
```

Ile His Ser Lys Thr Leu Gly Ala Gly Lys His Asp Asp Ser Leu Ala
65 70 75 80
Arg Ala Gly Asp Ile Lys Gly Glu Leu Leu Met Val Ser Leu Ile Ser
85 90 95
Ser Ser

<210> 33010
<211> 158
<212> PRT
<213> A.fumigatus

<400> 33010
His Ile Cys Leu Phe Thr Gly Phe Gly Ile Gln Pro Thr Ala Arg Arg
1 5 10 15
Ile Val Phe Val Ser Lys Ser Val Val Pro Cys Ser Leu Gly Arg Leu
20 25 30
Ser Leu Ser Ser His Gly Arg Pro Ser Arg Thr Pro Arg Pro Ser Leu
35 40 45
Pro Pro Met Val Pro Arg Ser Ser Leu Met Asp Gly Val Ser Asp Leu
50 55 60
Ser Arg Gln Arg Ser Thr Gln Thr Asn Met Leu Thr Phe Gly Thr Asp
65 70 75 80
Gly Lys Ala Arg Lys Ile His Tyr Thr Cys Asp Leu Tyr Phe Ala Leu
85 90 95
Asn Trp Gly Leu Ile Thr Gly Phe Ser Ser Pro Phe Pro Trp Phe Tyr
100 105 110
Pro Ile Phe Phe Ala Cys Met Ile Thr His Arg Ala Leu Arg Asp Ile
115 120 125
Gln Arg Cys Arg Asn Lys Tyr Gly Glu Ala Trp Val Glu Tyr Glu Arg
130 135 140
Gln Val Pro Tyr Leu Phe Ile Pro Val Ser Tyr Ser Ser Ser
145 150 155

<210> 33011
<211> 88
<212> PRT
<213> A.fumigatus

<400> 33011
Tyr Ala Ala Ala Phe Arg Val Lys Lys Ser Asn Ile Thr Asn Ser Pro
1 5 10 15
Thr Ser Ala Pro Tyr Phe Thr Ala Gly Asn Phe Ile Phe Ser Met Ser
20 25 30
Ile Gly Gly Ser Leu Arg Phe Met Tyr Ile Ile Arg Leu Ala Thr Thr
35 40 45
Gly Arg His Leu Val Ser Phe Leu Leu Leu Phe Ser Phe Cys Phe Asp
50 55 60
Tyr Ser Tyr Leu Cys Pro Leu Ile Lys Arg Phe Met Thr Leu Ala Arg
65 70 75 80
Leu Tyr Arg Leu Asn Asp Asn Val
85

<210> 33012
<211> 70
<212> PRT

<213> A.fumigatus

<220>
<221> UNSURE
<222> (32),(68)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33012
Cys Ser Ala Arg Ser Thr Lys Val Arg Thr Arg Leu Arg Ala Ile Asp
1 5 10 15
Gly Ala Glu Thr Asp Cys Glu Leu Val Thr Gly Pro Val Ser Arg Xaa
20 25 30
Ala Arg Gln Ile Ala Gly Gln Gly Tyr Ile Cys Ala Ala Pro Ser Ser
35 40 45
Tyr His Glu Phe Thr Gly Pro Glu Pro Leu Gln Tyr Asn Ala Glu Asp
50 55 60
Thr Asp Lys Xaa Asn Gln
65 70

<210> 33013
<211> 280
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (26)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33013
Leu Asn Val Val Leu His Ile Asp Phe Ser Met Leu Phe Ser Arg Ser
1 5 10 15
Gly Arg Ser Ile Phe Pro Leu Leu Pro Xaa Tyr Ala Ala His Ala Pro
20 25 30
Asn Pro Asn Gln Gly His Ile Ile Ala Leu Pro Pro Asp Gly Leu Thr
35 40 45
Pro Tyr Phe Gly Leu Arg Ala Arg Leu Ser Gln Val Trp Ile Asn Arg
50 55 60
Trp Thr Ile Leu Leu Leu Leu Val Leu Val Arg Val Leu Leu Ala Ala
65 70 75 80
Ser Gly Leu Gln Ala Asp Met Ser Thr Ala Lys Arg Glu Ala Leu Ser
85 90 95
Ala Cys Thr Ser Val Glu Ser Met Gly Ser Ser Met Ala Ser Met Pro
100 105 110
His Tyr Leu Ser Gln Gly Val Asn Glu Leu Thr Ala Thr Gly Val Glu
115 120 125
Lys Ala Val Ser Gly Leu Lys Ser Met Leu Met Leu Thr Ile Thr Gly
130 135 140
Val Glu Glu Leu Val Leu Phe Ile Ile Lys Val Leu Tyr Gln Thr Tyr
145 150 155 160
Leu Cys Leu Phe Thr Leu Ala Val Arg Gly Ser Val His Val Ala Val
165 170 175
Gly Val Ile Lys Glu Ala Ala Asp Phe Leu Asn Ser Thr Val Lys Glu
180 185 190
Val Gly Asp Asp Ile Gly Lys Ala Val Ser Thr Phe Glu Ser Ala Phe
195 200 205

```
Asn Lys Phe Leu Asp Gly Val Asn Thr Val Ala Ser Ala Phe Gly Ala
    210                 215                 220
Ser Val Pro Thr Leu Asp Leu Asn Ser Ser Ile Ser Thr Leu Glu Asn
225                 230                 235                 240
Leu Gln Leu Pro Ser Ser Ile Asp Gln Gly Leu Asp Lys Leu Asn Ser
                245                 250                 255
Ser Leu Pro Thr Phe Asp Glu Val Ser Leu His His Gly Ala Gly Arg
            260                 265                 270
Ile Arg Arg Arg Thr Lys Val Tyr
        275                 280
```

<210> 33014
<211> 161
<212> PRT
<213> A.fumigatus

<400> 33014

```
Asp Leu Leu Tyr Arg Gln Arg Gly Met Asp Ala Val Ile Val Gln Lys
1               5                   10                  15
Thr Thr Arg Ile Leu Thr Gly Ser Gln Ala Leu Tyr Asp Ile Cys Met
            20                  25                  30
Arg Thr Leu Lys Leu Ser Asn Pro Ser Tyr Gly Asp Leu Asn His Leu
        35                  40                  45
Val Ser Ala Val Met Ser Gly Val Thr Thr Cys Leu Arg Phe Pro Gly
    50                  55                  60
Gln Leu Asn Ser Asp Leu Arg Lys Leu Ala Val Asn Met Val Pro Phe
65                  70                  75                  80
Pro Arg Leu His Phe Phe Met Val Gly Phe Ala Pro Leu Thr Ser Arg
                85                  90                  95
Gly Ala His Ser Phe Arg Ala Val Ser Val Pro Glu Leu Thr Gln Gln
            100                 105                 110
Met Phe Asp Pro Lys Asn Met Met Ala Ala Ser Asp Phe Arg Asn Gly
        115                 120                 125
Arg Tyr Leu Thr Cys Ser Ala Ile Leu Tyr Val Thr Thr Pro Ala Ala
    130                 135                 140
Ile Met His Asp Leu Cys Thr Asp His Asn Leu Ala Val Val Arg Phe
145                 150                 155                 160
Gln
```

<210> 33015
<211> 91
<212> PRT
<213> A.fumigatus

<400> 33015

```
Arg Arg Ser Arg Thr Arg Cys Ala Thr Ser Ser Pro Arg Thr Arg Ala
1               5                   10                  15
Thr Ser Leu Ser Gly Phe Pro Thr Thr Ser Arg Pro Leu Cys Ala Pro
            20                  25                  30
Phe Pro Pro Val Ala Ser Arg Cys Pro Arg Pro Ser Leu Val Thr Pro
        35                  40                  45
Pro Pro Phe Arg Ser Cys Ser Ser Val Ser Val Ile Ser Ser Leu Leu
    50                  55                  60
Cys Ser Val Ala Arg Leu Ser Cys Ile Gly Thr Leu Ala Arg Val Trp
65                  70                  75                  80
```

Thr Arg Trp Ser Ser Leu Arg Pro Arg Ala Thr
85 90

<210> 33016
<211> 156
<212> PRT
<213> A.fumigatus

<400> 33016
Ala Asn Gly Asp Lys Tyr Val Pro Arg Ala Val Leu Val Asp Leu Glu
1 5 10 15
Pro Gly Thr Met Asp Ala Val Arg Ala Gly Pro Phe Gly Glu Leu Phe
20 25 30
Arg Pro Asp Asn Phe Val Phe Gly Gln Ser Gly Ala Gly Asn Asn Trp
35 40 45
Ala Lys Gly His Tyr Thr Glu Gly Ala Glu Leu Val Asp Gln Val Ile
50 55 60
Asp Val Val Arg Arg Glu Ala Glu Gly Cys Asp Cys Leu Gln Gly Phe
65 70 75 80
Gln Val Thr His Ser Leu Gly Gly Gly Thr Gly Ala Gly Met Gly Thr
85 90 95
Leu Leu Ile Ser Lys Ile Arg Glu Glu Phe Pro Asp Arg Met Met Ala
100 105 110
Thr Phe Ser Val Val Pro Ser Pro Lys Val Ser Asp Thr Val Val Glu
115 120 125
Pro Tyr Asn Ala Thr Leu Ser Val His Gln Leu Val Glu His Ser Asp
130 135 140
Glu Thr Phe Cys Ile Asp Asn Glu Val Trp Met Leu
145 150 155

<210> 33017
<211> 121
<212> PRT
<213> A.fumigatus

<400> 33017
Phe Ser Arg Gly Lys Val Ser Met Lys Glu Val Glu Asp Gln Met Arg
1 5 10 15
Asn Ile Gln Ser Lys Asn Gln Ser Tyr Phe Val Glu Trp Ile Pro Asn
20 25 30
Asn Ile Gln Thr Ala Leu Cys Ser Ile Pro Pro Arg Gly Leu Lys Met
35 40 45
Ser Ser Thr Phe Ile Gly Asn Ser Thr Ser Ile Gln Glu Leu Phe Lys
50 55 60
Arg Val Gly Asp Gln Phe Thr Ala Met Phe Arg Arg Lys Ala Phe Leu
65 70 75 80
His Trp Tyr Thr Gly Glu Gly Met Asp Glu Met Glu Phe Thr Glu Ala
85 90 95
Glu Ser Asn Met Asn Asp Leu Val Ser Glu Tyr Gln Gln Tyr Gln Asp
100 105 110
Ala Ser Ile Ser Glu Gly Glu Glu Glu
115 120

<210> 33018
<211> 200
<212> PRT

<213> A.fumigatus

<400> 33018
Glu Thr Glu Gln Thr Tyr Gly Ile Pro Thr Ile Ser Gly Leu Leu Thr
1 5 10 15
Ala Thr Ser Gln Phe Ser Asn Pro Glu Thr Ser Leu Lys Arg Tyr Thr
20 25 30
Asp Thr Ser Val Leu Ile Gln Glu Phe Met Gly Asn Ala Pro Ser Ser
35 40 45
Glu Arg Ala Cys Ile Ala Leu Ala Arg Thr Arg Phe Leu His Thr Gly
50 55 60
Tyr Arg Ala Ala Gly Lys Ile Gln Glu Asp Asp Met Leu Tyr Thr Leu
65 70 75 80
Gly Leu Phe Ala Ile Gln Pro Val Arg Phe Ile Glu Lys Phe Glu Trp
85 90 95
Arg Thr Leu Ser Asp Met Glu Lys Cys Ala Leu Gly Thr Phe Trp Lys
100 105 110
Ser Ile Gly Asp Gly Leu Asp Ile Ser Tyr Glu Asn Leu Pro Ser Ser
115 120 125
Lys Thr Gly Phe Arg Asp Gly Leu His Trp Leu Glu Glu Ile Met Ala
130 135 140
Trp Ser Asp Glu Tyr Glu Val Arg Ser Met Leu Pro Asp Val Lys Asn
145 150 155 160
Arg Glu Thr Ala Asp Gln Thr Thr Ala Val Leu Leu Tyr Met Ile Pro
165 170 175
Gly Pro Leu Gln Pro Ile Gly Leu Lys Phe Val Ser Phe Met Met Asp
180 185 190
Asp Arg Leu Arg Lys Ala Met Leu
195 200

<210> 33019
<211> 627
<212> PRT
<213> A.fumigatus

<400> 33019
Arg Gly Gly Arg Pro Leu Glu Arg Ser Glu Tyr His Ile Ser Asn Gln
1 5 10 15
Gln His Gly Ala Asp Ala Glu Ile Gln Glu Thr Lys Pro Pro Asn His
20 25 30
Glu Pro Thr Pro Ser Gln Ile Leu Arg Tyr Ala Leu Met Gly Thr Thr
35 40 45
Glu Leu Ser Arg Gln Glu Pro Ser Lys Gln Asp Leu Asp Asp His Leu
50 55 60
Asn Glu Val Phe Leu Gly Glu Trp Arg Leu Ser Ala Pro Pro Leu Trp
65 70 75 80
Ser Ser Phe Arg Pro Lys Ala Ala Gly Leu Asp Arg Asp Val Phe Ser
85 90 95
Lys Gly Leu Glu Asp Asp Val Gln Asn Leu His Gln Leu His Ile Phe
100 105 110
Ile Glu Arg His Leu Asn Gly Gln Gly Phe Arg Gly Leu Trp Leu Val
115 120 125
Glu His Cys Gly Leu Leu Ala Gln Ala Leu Glu Arg Cys Gln Arg His
130 135 140
His Ser Ala Ala Glu Ile Leu Val Ala Ile Asn Ala Leu Val Ser Arg
145 150 155 160

```
Leu Arg Arg Leu Gln Thr Ile Val Pro Trp Glu Leu His Leu Leu Gly
                165                 170                 175
Met Tyr Tyr Ala Cys Leu Ser Tyr Ser Ala Ala Ala Leu Glu Arg His
            180                 185                 190
Leu Arg Asp Leu Arg Ala Val Lys Leu Asn Pro Phe Gly Leu Ala Thr
        195                 200                 205
Ser Leu Pro Leu Val Asp Ala Leu Tyr Met Ser Ile Arg Ser Phe Glu
    210                 215                 220
Leu Gln Gly Asp Tyr Pro Asp Thr Gly Ser Met Leu Lys Gln Val Thr
225                 230                 235                 240
Gly Glu Pro Cys Val Asn Asp Ala Ser Glu Val Thr Leu His Ser Phe
                245                 250                 255
Leu Ser Trp Ala Ser Arg Gly Lys Ala Lys Val Gly Arg Tyr Phe Arg
            260                 265                 270
Leu Leu Val Lys Leu Lys Ser Leu Glu Leu Leu Gln Ser Val Trp Gly
        275                 280                 285
Asp Leu Val Arg Leu Leu Glu Pro Lys Ala Pro Glu Arg Arg Phe His
    290                 295                 300
Asp Ala Tyr Ser Cys Ile Met Ala Leu Val Val Glu Gly Asp Val Thr
305                 310                 315                 320
Arg Ala Thr Arg Tyr Leu Glu Glu Ile Ser Lys Arg Ala Gly Asn Val
                325                 330                 335
Leu Pro Tyr Ile Ser Gly Phe Lys Asp Leu Asn Val Leu Leu Ala Asn
            340                 345                 350
Gln Glu Val Cys Glu Leu Leu Ser Arg Leu Cys Gly Gly Asp Glu Tyr
        355                 360                 365
Leu Lys Ile Leu Glu Val Tyr Leu Glu His Met Glu Arg Arg Leu Gly
    370                 375                 380
Ile Lys Trp Leu Pro Glu Arg Ser Leu His Thr Ser Ile Ser Asn Leu
385                 390                 395                 400
Ser Tyr Asn Ala Thr Gly Gln Pro Leu Leu Thr Met Asp Gly Asp Ser
                405                 410                 415
Thr Gly Tyr Glu Ser Ser Glu Arg Leu Ile Ala Glu Met His Ala Leu
            420                 425                 430
Gly Cys Ser Gly Ser Leu Ser Asp Leu Ile Arg Leu Ala Asn Cys Leu
        435                 440                 445
Asp Glu His Gly Gly Glu His Ile Pro Val Val Gln Ser Ser Ala Glu
    450                 455                 460
Asn Thr Pro Leu Glu Leu Ala Trp Val Pro Gln Arg Cys Pro Val Asp
465                 470                 475                 480
Val Leu Asn Ser Ser Glu Val Arg Ser Gly Glu His Thr Thr Asn Ser
                485                 490                 495
Pro Ser Ser Leu Gly Leu Ile Arg Leu Asp Pro Glu Asn Ala Gly Leu
            500                 505                 510
Ser Pro Ala Asp Thr Arg Ser Leu His Leu Met Gln Leu Gly Tyr Leu
        515                 520                 525
Ile Ile Lys Pro Lys Ala Ser Asn Ala Glu His Glu Trp Arg Glu Ser
    530                 535                 540
Gly His Ile Val Ala Leu Asp Arg Ser Ser Gly Gln Leu Phe Ala Val
545                 550                 555                 560
Phe Val Gly Lys Gly Gln Gly Pro Ile Ser Ala Gly Ile Gln Ser His
                565                 570                 575
Ile Pro Arg Met Pro Phe Asp Leu Lys Ser Ile Met Lys Ile Glu Leu
            580                 585                 590
Arg Ser Asp Leu Gly Gly Thr His Gln Gly Asp Asn His Ser Ser Pro
        595                 600                 605
```

```
Ile Phe Asp Ile Thr Glu Cys Tyr Leu Asp Val Asp Pro Cys Lys Asp
    610                 615                 620
Leu Val Ile
625

<210> 33020
<211> 91
<212> PRT
<213> A.fumigatus

<400> 33020
Thr Val Gly Pro Val Arg Tyr Glu Ile Trp Asp Val Ser Gly Lys Gln
1               5                   10                  15
Lys Pro Thr Val Leu Ala Ser Arg Glu Phe Asp Asp Ile Asp Ala Ala
            20                  25                  30
Ile Ile Met Phe Asp Leu Thr Asp Arg Val Ser Tyr Asn Asn Val Pro
        35                  40                  45
Asn Trp Tyr Ser Met Tyr Ile Thr Asn His Val Glu Val Ala Leu Thr
    50                  55                  60
Glu Leu Cys Arg Glu Pro Arg Lys Gln Gly Arg His Ala Pro Trp Glu
65                  70                  75                  80
Val Tyr Ser His Leu His Leu Trp Glu Gln Lys
                85                  90

<210> 33021
<211> 406
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (399)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33021
Trp Ala Tyr Asn Gly Cys Leu Val Ser Asp Trp Phe Ala Thr Lys Ser
1               5                   10                  15
Cys Ala Pro Ser Ile Asn Ala Gly Leu Asp Leu Lys Met Pro Gly Pro
            20                  25                  30
Thr Ile Leu Arg Gly Gln Lys Leu Val Ala Ala Val Arg Asp Gly Val
        35                  40                  45
Val Asp Glu Lys Ala Val Asp Glu Cys Val Ser Arg Val Leu Ala Leu
    50                  55                  60
Val Glu Lys Thr Arg Glu Ser His Ser Leu Glu Pro Glu Arg Ser Glu
65                  70                  75                  80
Ile Ile Pro Glu Thr Asn Ala Leu Ala Leu Lys Ile Ala Ser Glu Gly
                85                  90                  95
Ile Val Leu Leu Lys Asn Glu Gln Gly Val Leu Pro Leu Asp Met Arg
            100                 105                 110
Arg Ala Pro Lys Ile Ala Val Ile Gly Val Pro Ala Ser Glu Pro Val
        115                 120                 125
Val Ser Gly Gly Gly Ser Ala Ser Ala Pro Pro Gln Tyr Leu Gln Lys
    130                 135                 140
Pro Leu Asp Tyr Leu Arg Asp Ala His Pro Phe Pro Ser Leu Val Lys
145                 150                 155                 160
Tyr Ile Arg Gly Val Asn Thr Asn Arg Ile Ile Pro Ile Val Pro Leu
```

```
                165                 170                 175
Asp Cys Thr Thr Ser Arg Asn Gly Ser Pro Gly Phe Asp Val Ala Tyr
            180                 185                 190
Tyr Asn Glu Asp Ser Asp Ile Pro Val Tyr Thr Glu His Gln Lys Thr
        195                 200                 205
Pro Val Val Ala Met Val Arg Asn Leu Lys Pro Gly Leu Thr Glu Pro
    210                 215                 220
Gly Phe Ser Cys Glu Ile Ser Thr Thr Ile Thr Pro Lys Thr Thr Gly
225                 230                 235                 240
Pro His Thr Leu Ala Ala Arg Val Thr Gly Ser Phe Ser Leu Phe Val
                245                 250                 255
Glu Ser Lys Ala Val Leu Ser Val Pro Lys Gln His Glu Val Thr Met
            260                 265                 270
Glu Asp Phe Leu Phe Glu Pro Ala Arg Leu Glu His Arg Thr Ser Val
        275                 280                 285
Phe Met Glu Ala Gly Lys Pro Tyr Leu Val Arg Leu Leu Ser Arg Ala
    290                 295                 300
Arg Ile Pro Arg Glu Asn Asp Tyr Glu Pro Thr Pro His Gly Ala Thr
305                 310                 315                 320
Leu Cys Tyr Glu Glu Phe Ser Asp Glu Arg Ala Ala Ile Ala Glu Ala
                325                 330                 335
Val Gln Ala Ala Phe Ser Ala Asp Val Ser Ile Ile Phe Ala Gly Arg
            340                 345                 350
Asn Gln Gln Tyr Glu Ser Glu Gly Phe Asp Leu Glu Ser Met Ser Ile
        355                 360                 365
Ser Glu Pro Gln Val Arg Leu Ile Arg Ala Val Thr Ala Val Ser Lys
    370                 375                 380
Lys Thr Val Leu Val Leu Asn Ser Gly Asn Pro Val Phe Asn Xaa Arg
385                 390                 395                 400
Pro Glu Gly Thr Asp Leu
                405
```

<210> 33022
<211> 185
<212> PRT
<213> A.fumigatus

<400> 33022

```
Leu Val Asp Ser Val Asn Gly Val Lys Gly Ser Glu Leu His His Gly
1               5                   10                  15
Val Pro Thr Ala Ile Phe Pro Ser Ser Thr Leu Tyr Gly Ala Thr Trp
            20                  25                  30
Asn Asn Thr Leu Met Glu Glu Leu Gly Arg Ala Leu Ala Tyr Gln Ala
        35                  40                  45
Lys Leu Lys Ser Ala Gln Val Ile Leu Gly Pro Thr Ile Asn Ile His
    50                  55                  60
Arg Asp Pro Arg Gly Gly Arg Asn Phe Glu Cys Phe Ser Glu Asp Pro
65                  70                  75                  80
Leu Leu Ser Gly Gln Leu Ala Ala Gly Val Val Arg Gly Ile Gln Ser
                85                  90                  95
Gln Gly Val Ala Ala Cys Pro Lys His Phe Ala Cys Asn Glu Ser Glu
            100                 105                 110
Phe Lys Arg Arg Glu Tyr Ser Val Ala Gln Ser His Asn Ser Arg Ala
        115                 120                 125
Val Arg Glu Ile Tyr Leu Ala Ala Phe Gln Glu Met Leu Arg Arg Ser
    130                 135                 140
```

```
Glu Pro His Gly Leu Met Val Arg Tyr Val Ser Arg Pro Ser Ser Ser
145                 150                 155                 160
Val Tyr Ile Leu Leu Leu His Val Phe Asp Val Tyr Trp Met Ile Phe
                165                 170                 175
Leu Met Pro Ala Ile Ala Thr Ile Asn
            180                 185

<210> 33023
<211> 133
<212> PRT
<213> A.fumigatus

<400> 33023
Ser Ile Ser Trp Gly Leu Ile Thr Thr Gly Tyr Ser Cys Pro Asn Met
1               5                   10                  15
Gln Val Lys Ser Glu Ser Ser Val Pro Val Met Gly Asn Leu Lys Thr
            20                  25                  30
Val Asn Ala Thr Val Asp Glu Val Phe Asp Leu Ser Arg Ala Gly Thr
        35                  40                  45
Pro Ser Ser Gln Asp Glu Ser Ala Arg Glu Asp Ala Ala Pro Ser Val
    50                  55                  60
Gln Pro Asn Phe Thr Ser Leu Leu Pro Gln Leu Thr Leu Glu Glu Lys
65                  70                  75                  80
Val Gly Leu Leu Ser Gly Thr Asp Phe Val His Ser Ser Gly Val Ser
                85                  90                  95
Arg Leu Asn Ile Pro Pro Leu Lys Val Tyr Glu Ser Ser Ala Met Ala
            100                 105                 110
Arg Pro Val Arg Ser Ile Val Gln Leu Thr Trp Leu Pro Arg Ser Ser
        115                 120                 125
Ser Ser Ser Thr Arg
    130

<210> 33024
<211> 687
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (613),(635),(648),(681)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33024
Cys Asn Gly Glu Val Asp Ile Ser Ser Leu Glu Leu Ile Phe Trp Phe
1               5                   10                  15
Trp Ser Ala Gly Phe Met Leu Asp Glu Ile Val Gly Phe Asn Glu Gln
            20                  25                  30
Gly Phe Ser Leu Tyr Leu Met Ser Phe Trp Asn Leu Phe Asp Leu Gly
        35                  40                  45
Ile Leu Phe Leu Leu Phe Cys Tyr Tyr Cys Met Arg Leu Tyr Gly Ala
    50                  55                  60
Leu Met Pro Ser Pro Tyr Asn His Ala Ile Ala Asp Arg Ala Tyr Asp
65                  70                  75                  80
Ile Leu Ala Ala Asn Ala Val Leu Leu Phe Pro Arg Leu Phe Ser Val
                85                  90                  95
Leu Asp His Tyr Arg Tyr Phe Ser Gln Leu Leu Ile Ala Phe Arg Ile
```

```
                100                 105                 110
Met Ala Ser Asp Leu Val Ala Val Phe Leu Leu Val Ala Ile Thr Cys
            115                 120                 125
Ser Gly Phe Phe Val Ala Phe Thr Leu Ser Phe Gly Asn Ile Glu Glu
    130                 135                 140
His Thr Pro Ala Ser Val Ala Tyr Ala Leu Phe Gln Met Leu Met Gly
145                 150                 155                 160
Phe Thr Pro Ala Ala Trp Thr Leu Trp Asp Asp Tyr Asn Ile Leu Gly
                165                 170                 175
Lys Ile Ile Leu Thr Leu Phe Leu Phe Ile Cys His Phe Val Val Val
            180                 185                 190
Thr Ile Leu Ile Thr Val Leu Thr Asn Ser Phe Met Ala Ile Val Gln
        195                 200                 205
Asn Ala Asn Gln Glu His Gln Phe Leu Phe Ala Val Asn Thr Ile Ser
    210                 215                 220
Met Val Lys Ser Asp Ala Leu Phe Ser Tyr Val Ala Pro Thr Asn Ile
225                 230                 235                 240
Ile Ala Trp Leu Val Thr Pro Leu Arg Tyr Phe Met Pro Leu Arg Gln
                245                 250                 255
Phe Ile Arg Leu Asn Arg Thr Met Ile Lys Ile Thr His Phe Pro Val
            260                 265                 270
Leu Phe Thr Ile Cys Leu Tyr Glu Lys Ala Ile Leu Ser Pro Arg Val
        275                 280                 285
Asn Glu Pro Ile Asp Leu Ile Asp His Ser Asn Arg Pro Asp Ala Leu
    290                 295                 300
Ser Arg Ser Arg Ala Arg His Gly Arg Phe Lys Ser Phe Asn Pro Gln
305                 310                 315                 320
Ala Pro Arg Leu Val Arg Glu Pro Ser Val Ala Thr Tyr Gln Lys Asp
                325                 330                 335
Arg Ala Leu Glu Glu Val Phe Arg Asn Pro Leu Glu Glu Thr Ile Arg
            340                 345                 350
Arg Pro Pro Arg Leu Met Gln Gln Arg Lys Ser Asn Asn Ile Val Ser
        355                 360                 365
Asn Trp Met Gln Ala Met Gly Ser Gly Pro Val His Pro Pro Asp Glu
    370                 375                 380
Gln Asp Ser Asp Glu Leu Asp Arg Leu Glu Arg Pro Pro Arg Arg Ser
385                 390                 395                 400
Arg Phe Pro Phe Arg Gly Arg Thr Thr Gly Ser Leu Arg Asp Phe Thr
                405                 410                 415
Asp Ser Asn Arg Ser Ala Thr Ser Asp Pro Glu Gly His Leu Gly His
            420                 425                 430
Ile Val Ser Ser Pro Ala Thr Pro Arg Arg Glu Arg Ala Asn Val Ser
        435                 440                 445
Pro Ala Arg Ile Arg Gln Leu Ser Gln His Thr Asp Ile Glu Gly Asp
    450                 455                 460
Asp Glu Leu Thr Ser Asp Asp Thr Glu Val Arg Arg Ser Asn Pro Ser
465                 470                 475                 480
Ser Ser Asp Arg Asn Gly Gly Val Ser Pro Gly Lys Ala Thr Pro Lys
                485                 490                 495
Phe Tyr Ser Ser Arg Pro Ser Thr Ala Arg Val Lys Ser Arg Lys Asn
            500                 505                 510
Ser Pro Ser Arg Arg Pro Lys Phe His Thr Arg Asn Tyr Ser Ala Ala
        515                 520                 525
Thr Met Leu Tyr Asn Pro Val Pro Ser Val Ser Asn Asp Glu Gly Thr
    530                 535                 540
Asp Val Ser Pro Val Pro Ile Arg Pro Arg Ala Glu Thr Pro Ser Ala
```

545 550 555 560
Gly Asp Asp Ala Ala Thr Ala Thr Ser Val Asp Gln Trp Met His Arg
565 570 575
Arg His Ser Leu Asp Val Gly Val Ser Gln Asn Val Ala Leu Ala Arg
580 585 590
Ser Asn Pro Met Ser Val Pro Asp Leu Gly Ser Phe Leu Gln Thr Lys
595 600 605
Ser Gln His Arg Xaa Arg Arg Gln Ala Ser His Leu Tyr Gly Leu Gly
610 615 620
Ser Asp Leu Gly Asp Asn Arg Ala Ile Ala Xaa Gly Phe Leu Gly Cys
625 630 635 640
Phe Ala Cys Ser Phe Thr Thr Xaa Met Glu Tyr Ala Ala Gly Gly Ile
645 650 655
Pro Arg Pro Asp Ser Ser Gly Ser Asn Gln Asp Met Leu Ser Lys Leu
660 665 670
Val Leu Ala Arg Met Asn Asn Ile Xaa Glu Gly Ser Val Arg Cys
675 680 685

<210> 33025
<211> 110
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (28)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33025
Pro Ser Ser Phe Val Ile Gln Pro Trp Arg Ser His Leu Ser Ala Ala
1 5 10 15
Pro Trp Lys Ser Ser Arg Gln Ser Gly Phe Met Xaa Ser Val Glu Thr
20 25 30
Ile Gly Thr His Asp Thr Asn Leu Thr Leu Lys Trp Thr Arg Met Leu
35 40 45
Tyr Asp Trp Cys Leu Glu His Pro Asp Leu Pro Gly Asn Pro Leu Val
50 55 60
Leu Asp Ala Gln Asp Ile Ile Pro His Pro His Val Lys Val Arg Tyr
65 70 75 80
Cys Glu Lys Thr Val Leu Thr Pro Asn Pro Leu Asn Phe Asp Cys Glu
85 90 95
Asn Lys Pro Gln Pro Lys Gly Leu Lys Leu Lys Leu Ser Lys
100 105 110

<210> 33026
<211> 81
<212> PRT
<213> A.fumigatus

<400> 33026
Leu Gly Leu Leu Asp Ile Trp Ile Pro Leu Ser Gly Thr Lys Pro Leu
1 5 10 15
Ile Lys Tyr Tyr Ser Ile Trp Pro Val Asp His Gln Cys Gly Leu Thr
20 25 30
Ser Thr Val Gly Gly Thr Gln Pro Leu Ile Ala Trp Glu Ser Leu Pro
35 40 45

```
Thr Val Ala Gln Thr Ala Leu Glu Asp Thr Asp Phe Gly Asp Ala Asn
    50                  55                  60
Val Pro Phe Lys Asn Ala Asn Phe Ala Ser Asn Leu Ala Lys Ala Thr
65                  70                  75                  80
Phe
```

<210> 33027
<211> 205
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (198)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33027

```
Ser Phe Phe Trp Cys Tyr Ser Thr Ser Leu Pro Ile Met Ala Asp Gly
1               5                   10                  15
Asn Ile Ser Pro Ser Arg Ser Arg Leu Leu Leu Ile Ser Val Pro Arg
            20                  25                  30
Thr Ala Ser Asn Leu Met Leu Lys Leu Leu Asn Val Pro Cys Gln Lys
        35                  40                  45
Leu Val Thr Ser Glu Arg Gly Gly Tyr Phe Phe Phe Asn Ala Phe Leu
    50                  55                  60
Lys Val Ser Gly Asp Gly His Arg Cys Val Pro Ile Gly Glu Arg Asn
65                  70                  75                  80
Glu Ala Glu Lys Arg Glu Ile Arg Asp Ala Phe Gln Glu Ala Val Asp
                85                  90                  95
Ala Leu Glu Asp Cys Ser Glu Arg Ala Glu Arg Glu Gly Lys Ile Ala
            100                 105                 110
Phe Ala Lys Glu His Ala Phe Trp Phe Thr Asn Pro Ala Val Leu Gly
        115                 120                 125
Asn Val Thr Glu Asp Ala Ala Ser Phe Arg Pro Arg Ile Pro Asp Lys
    130                 135                 140
Tyr Gly Pro Ser His Thr Phe Ser Ser Leu Asn His Thr Val Leu Pro
145                 150                 155                 160
Asp Glu Tyr Leu Arg Thr Trp Arg Leu Thr Phe Ile Ile Arg His Pro
                165                 170                 175
Ala Leu Ala Phe Pro Ser Leu Cys Arg Ala Met Glu Lys Phe Pro Ala
            180                 185                 190
Lys Arg Leu Tyr Ala Xaa Gly Gly Asn His Arg His Ala
        195                 200                 205
```

<210> 33028
<211> 120
<212> PRT
<213> A.fumigatus

<400> 33028

```
Glu Glu Ile Ala Ala Met Lys Arg Arg Val Ala Glu Met Glu Ser Glu
1               5                   10                  15
Ala Ala Lys Leu Arg Glu Met Gln Ala Thr Leu Asp Gln Gln Ser Glu
            20                  25                  30
Ser Leu Arg Glu Asp Lys Glu Glu Ile Asp Ala Arg Ser Ile Phe Val
```

```
        35                  40                  45
Gly Asn Val Asp Tyr Gly Ala Ser Pro Glu Glu Ile Gln Ala His Phe
    50                  55                  60
Gln Ser Cys Gly Ser Ile Asn Arg Val Thr Ile Leu Leu Asp Lys Phe
65                  70                  75                  80
Thr Gly Gln Pro Lys Gly Cys Val Met Pro Ile Ser Ser Lys Lys Asp
                85                  90                  95
Gly Gly Cys Leu Arg Arg Cys Leu Leu Ser Trp Ile Ser Thr Pro Lys
            100                 105                 110
Ile Cys Ile Met Ala Ala Asp Cys
        115                 120
```

<210> 33029
<211> 96
<212> PRT
<213> A.fumigatus

<400> 33029

```
Gly Val Thr Lys Gly Ser Thr Ala Val Leu Thr Leu Gly Val Ser Cys
1               5                   10                  15
Gly Arg Val Arg Ser Ile Thr Phe Ile Ala Ser Gly Gly Ile Leu Lys
            20                  25                  30
His Ile Ser Ala His Asp Thr Gln Gly Cys Phe Arg Ile Arg Trp Met
        35                  40                  45
Val Ser Cys Leu Glu Lys Lys Thr Lys Asn Asn Met Lys Leu His Glu
    50                  55                  60
Pro Ser Leu Met Lys Ile Asp Ser Ile Asn Gly Leu Leu Arg Ile Tyr
65                  70                  75                  80
Arg Ser Ser Gln Ala Ala Ala Arg Ser His Tyr Phe Trp Val Val Pro
                85                  90                  95
```

<210> 33030
<211> 481
<212> PRT
<213> A.fumigatus

<400> 33030

```
Arg Ile Gly Leu Pro Thr Ile Gly Ser Pro Pro Glu Gln Glu Arg Pro
1               5                   10                  15
Pro Pro Pro Pro Pro Thr Lys Ile Asp Phe Pro Val Tyr Asp Leu Leu
            20                  25                  30
Asp Val Pro Gly Asp Ala Ser Glu Ser Ser Leu Arg Glu Ile Ala Asp
        35                  40                  45
Leu Leu Ala Ser Ile Arg Arg Pro Gln Asp Leu Ser Thr Glu Lys Leu
    50                  55                  60
Lys Ala Phe Asn Leu Arg Met Glu Thr Asn Ile Thr Ala Asp Arg Ile
65                  70                  75                  80
Val Pro Gln Gly Ser Lys Leu Phe Pro Pro Leu Pro Trp Glu Ala Arg
                85                  90                  95
Val Cys Asn Glu Thr Glu Asp Gly Glu Pro Ile Leu Met Asp Asn Gly
            100                 105                 110
Asn Pro Tyr Pro Ala Ala Asp Arg Phe Glu Ile Leu Lys Lys Glu Leu
        115                 120                 125
Leu Leu Asp Asn Asp Asp Ala Phe Arg Glu Val Thr Arg Leu Pro Pro
    130                 135                 140
Lys Glu Gly Arg Gln Arg Val Arg Val Ala Asn Ala Arg Lys Phe Trp
```

```
145                 150                 155                 160
Met Gly Leu Glu Arg Met Ser Gln Trp Trp Asp Ser Ser Leu Asp Asn
                165                 170                 175
Tyr Phe Glu Arg Leu Ala Ile Pro Glu Glu Ala Ser Asn Glu Asp Lys
            180                 185                 190
Met Gln Thr Asp Gly Glu Pro Gln Pro Ser Gly Ile Gln Glu Ser Thr
        195                 200                 205
Thr Thr Pro Met Glu Val Asp Ser Pro Pro Thr Thr Gln Thr Val Asp
    210                 215                 220
Gly Thr Ser Ser Asp Pro Glu Glu Gly Gln Gln Pro Thr Val Gln Arg
225                 230                 235                 240
Tyr Thr Gly Arg Arg Ile Gly Asn Gly Gln Glu Met Pro Glu Asp Val
                245                 250                 255
Arg Glu Glu Thr Val Arg Ala Leu Ala Glu Met Ala Ala Trp Pro Phe
            260                 265                 270
Gly Cys Gln Val Thr Val Pro Met Leu Pro Pro Arg Leu Thr Val Lys
        275                 280                 285
Lys Ile Leu Phe Pro Ile Arg Gln Ser Phe Gln Ala Ala Arg Ser Pro
    290                 295                 300
Lys Asp Arg Gln Leu Ala Arg Asn Gly Val Met Glu Gly Pro Val Phe
305                 310                 315                 320
Val Ala Gln Cys Arg Pro Glu Thr Ser Phe Arg Gly Pro Gly Asp Ala
                325                 330                 335
Pro Gly Thr Gly Val Gly Glu Val Cys Asp Leu Phe Gln Glu Leu Gly
            340                 345                 350
Ala Met Leu Leu Ala Ala Gln Glu Arg Ala Arg Gln Gly Thr Thr Glu
        355                 360                 365
Val Lys Ala Gly Glu Gly Lys Trp Trp Ala Thr Lys Pro Arg Trp Gly
    370                 375                 380
Gly Ala Thr Gln Asp Thr Gln Asp Asn Ser Asn Cys Glu Asp Gln Ser
385                 390                 395                 400
Val Arg Asp Gly Asn Asp Arg Lys Arg Ser Lys Tyr Glu His Pro Phe
                405                 410                 415
Val Ala Ser Arg Arg Pro Gly Ser Gly Arg Lys Leu Ser Asn Ala Glu
            420                 425                 430
Lys Trp Lys Ile Val Gln Pro Gly Pro Ser Leu Trp Asp Lys Arg Met
        435                 440                 445
Arg Tyr Ile Gln Ile Gly Lys Asp Lys Asp Ser Pro Phe Asp Asp Val
    450                 455                 460
Cys Leu Ile Thr Asp Gly Arg Cys Glu Pro Met Leu Ile Leu Asn Leu
465                 470                 475                 480
Ile
```

<210> 33031
<211> 65
<212> PRT
<213> A.fumigatus

<400> 33031

```
Ser Thr Val Pro Phe Thr Gln Asn Gly Pro Leu Thr Arg Arg Arg Val
1               5                   10                  15
Ala Gly Arg Asp Ser Pro Gln Pro Leu Gly Ser Gly Asn Pro Leu Gly
            20                  25                  30
Ile Ser Gly Asn Tyr Asp Arg Leu Pro Phe Ala Pro Tyr Phe Val Leu
        35                  40                  45
```

```
Ala Ser Val Val Ala Gly Ser Leu Leu Gln Ser Gly Phe Gly Asp Gly
    50                  55                  60
Lys
65
```

<210> 33032
<211> 201
<212> PRT
<213> A.fumigatus

<400> 33032

```
Leu Ser Ser Ala Trp Thr Arg Leu Asn His Ser Cys Asp Gln His Asn
1               5                   10                  15
Asp His Asp His Arg Asn Gln Ala Arg Thr His Gly Arg Pro Phe Glu
            20                  25                  30
Thr Ala Met His Trp Thr Gln Leu Gly Thr Pro Gln Leu Arg Glu Asn
        35                  40                  45
Asn Gly Trp Thr Thr Gly Asn Ser Ser Pro Val Tyr Gln Thr His Gly
    50                  55                  60
Ser Asp Leu Ser Arg Leu Thr Ile Glu Thr Ile Leu Ser Trp Ser Val
65                  70                  75                  80
Phe Glu Gly Lys Tyr Asp Ala Gly Pro Ser Leu Thr Asp Leu Leu Ser
                85                  90                  95
Ser Pro Thr Thr Leu Ser Gln Glu Pro Phe Leu Ala Ser Ile Asp Pro
            100                 105                 110
Arg His Glu Arg Leu Asp Leu Asp Leu Arg Thr Cys Thr Arg Leu Leu
        115                 120                 125
His Thr Phe Leu Glu Glu Val His Ile Ala Asn Pro Ile Leu Asp Gly
    130                 135                 140
Pro Leu Val Thr Gly Tyr Leu Tyr Gln Ala Cys Ile His Gly Ile Gly
145                 150                 155                 160
Trp Asp Ala Pro Ser Cys Leu Val Val Gly Leu Ser Phe Pro Ser Glu
                165                 170                 175
Ala Ala His Ser Leu Thr Arg Thr Ala Leu Pro Ala Ala His Met Cys
            180                 185                 190
Leu Gly Arg Asn Leu Arg Lys Leu Ser
        195                 200
```

<210> 33033
<211> 141
<212> PRT
<213> A.fumigatus

<400> 33033

```
Arg Gly Asp Ser Leu Ala Cys Leu Lys Ala Lys Trp Ile Thr Gly Leu
1               5                   10                  15
Tyr Met Gly Ser Phe Ala Thr Asn Pro Thr Arg Trp Thr Leu Ile Asp
            20                  25                  30
Leu Arg Pro Pro Pro Pro Leu Cys Gln Thr Arg Ser Val Gly Phe Ser
        35                  40                  45
Ser Pro Leu Tyr Ser Trp Thr Leu Leu Pro Phe Leu Leu Ala Val Asp
    50                  55                  60
Thr Gly Met Ala Thr Lys Gln Pro Ser Arg Gly Pro Ala Ala Tyr Pro
65                  70                  75                  80
Arg Arg Arg Ala Val Arg Ala Cys Gln Val Cys Arg Ala Arg Arg Thr
                85                  90                  95
```

```
Lys Cys Asp Asn Lys Thr Pro Ala Cys Ser Phe Cys Glu Lys Ile Gly
            100                 105                 110
Ala Lys Cys Val Val Asn Asp Pro Thr Asp Met Ser Val His Ala Thr
        115                 120                 125
Arg Val Glu Asp Leu Cys Gly Cys Phe Ser Phe Gln Arg
    130                 135                 140
```

<210> 33034
<211> 246
<212> PRT
<213> A.fumigatus

<400> 33034

```
Ala Thr Thr Cys Ser Ser Ile Asn Arg Arg Ser Gly Gln Val Ile Phe
1               5                   10                  15
Gly Pro Pro Ser Val Asp Leu Val Val Val Leu Leu Gln Arg Gln Cys
            20                  25                  30
His Arg Met Val Arg Pro Arg Asn Pro Thr Val Val Arg Arg Phe Leu
        35                  40                  45
Ser Asn Ala Val Thr Ser Arg Gly Phe Asp Pro Gln Val Asn Gly Ala
    50                  55                  60
Val Leu Ser Ile Pro Ser Phe Gly Arg Asp Phe Gly Glu Gln Tyr Asp
65                  70                  75                  80
Gly Gly Phe Val Val Pro Ala Pro Trp Leu Ser Ala Phe Asn Ser Ile
                85                  90                  95
Ser Ser Val Gly Gln Phe Phe Gly Gly Phe Leu Cys Ser Thr Ile Ala
            100                 105                 110
Asp Arg Val Gly Arg Arg Leu Ala Leu Ala Val Gly Val Val Ile Thr
        115                 120                 125
Cys Gly Gly Ile Phe Gly Glu Leu Phe Ser Thr Ala Arg Ala Ala Phe
    130                 135                 140
Leu Ile Ser Lys Leu Ile Leu Gly Val Gly Leu Gly Phe Tyr Leu Thr
145                 150                 155                 160
Ile Gly Pro Leu Tyr Ser Ser Glu Ala Ser Tyr Val Gln Tyr His Asp
                165                 170                 175
Ser Arg Ile Met Ser Leu Thr Arg Ser Gln Gln Val Ser Pro Val Val
            180                 185                 190
Leu Arg Gly Ile Thr Thr Ala Gly Val Asn Leu Gly Ile Val Ile Gly
        195                 200                 205
Gln Leu Leu Ser Asn Ala Ala Ile Arg Gly Phe Gly Glu Arg Gly Asp
    210                 215                 220
Lys Trp Ala Tyr Arg Gly Pro Phe Ala Ile Gln Phe Phe Phe Val Gly
225                 230                 235                 240
Met Phe Ser Gly Val Tyr
                245
```

<210> 33035
<211> 157
<212> PRT
<213> A.fumigatus

<400> 33035

```
Ser Arg Arg Arg Arg Asp Arg Leu Arg Arg Arg Gly His His His Leu
1               5                   10                  15
Leu Asp His Arg Gln Pro Pro Gly Pro Pro His His Leu Gln Leu Arg
            20                  25                  30
```

```
His Gly His Pro Gln His Asp Gln Ser Ala His Arg His Pro Arg Arg
        35                  40                  45
Arg Pro His Pro Arg Arg Glu Leu Asp Thr Gly Arg Ala Asp Arg Arg
    50                  55                  60
Leu Gly Leu Leu Leu Pro Gly Gln His Arg Arg Arg Gly Leu Cys Ala
65                  70                  75                  80
Ala Arg Gly Asn Leu Val Ala Val Ser Thr Ser Gln Asp Asn Arg Arg
                85                  90                  95
Gly Asn Arg Asn Ala Gly Arg Leu Arg His Arg His Glu His Cys Ala
            100                 105                 110
Ser Val His Gly Glu Pro Gly Arg Gly Gln Tyr Ala Gly Gln Gly Arg
        115                 120                 125
Ile Cys Leu Trp Arg Ala Arg Gly Asp Arg His Arg Ala Val Leu Leu
    130                 135                 140
Val His Ser Arg Leu Glu Gly Ser His Phe Arg Gly Asp
145                 150                 155
```

<210> 33036
<211> 274
<212> PRT
<213> A.fumigatus

<400> 33036

```
Gln Gly Pro Lys Pro Leu Leu Lys Gly Leu Tyr Gly Ala Asp Arg Ile
1               5                   10                  15
Ile Lys Pro Lys Leu Val Ala Ile Gln Met Thr Val Ala Gln Asp Leu
            20                  25                  30
Ala Ala Lys Glu Ser Lys Trp Ser Asp Ala Val Arg Gly Thr Asn Arg
        35                  40                  45
Val Arg Thr Leu Ile Ser Gly Gly Val Phe Val Cys Gln His Leu Val
    50                  55                  60
Gly Ile Ile Phe Val Leu Gly Phe Ser Ser Tyr Phe Phe Gln Leu Ala
65                  70                  75                  80
Gly Leu Pro Thr Glu Arg Ser Phe Asp Leu Gly Val Gly Val Thr Ala
                85                  90                  95
Cys Gly Val Val Gly Thr Ile Ile Ser Trp Thr Ile Val Asn Arg Leu
            100                 105                 110
Gly Arg Arg Ile Ile Phe Asn Ser Gly Met Ala Ile Leu Ser Thr Ile
        115                 120                 125
Asn Leu Leu Ile Gly Ile Leu Asp Val Val Pro Thr Arg Gly Ala Ser
    130                 135                 140
Trp Thr Gln Ala Ala Leu Thr Val Val Trp Ala Phe Phe Tyr Gln Val
145                 150                 155                 160
Ser Ile Gly Ala Val Ala Phe Val Leu Leu Gly Glu Thr Ser Ser Pro
                165                 170                 175
Ser Leu Arg Ala Lys Thr Thr Ala Val Ala Thr Ala Thr Gln Ala Val
            180                 185                 190
Phe Gly Ile Val Met Asn Ile Val Leu Pro Tyr Met Val Asn Pro Asp
        195                 200                 205
Glu Gly Asn Met Gln Gly Lys Val Gly Phe Val Phe Gly Gly Leu Gly
    210                 215                 220
Val Ile Ala Thr Val Leu Cys Tyr Leu Tyr Ile Pro Asp Leu Lys Gly
225                 230                 235                 240
Arg Thr Phe Glu Glu Ile Asp Leu Met Phe Asp Ile Arg Val Pro Pro
                245                 250                 255
Arg Lys Met Gly Gly Tyr Val Ser Ser Pro Gly Ala Gly Arg Ser Arg
```

260 265 270

Ala Asn

<210> 33037
<211> 83
<212> PRT
<213> A.fumigatus

<400> 33037
Asn Met Ala Ile Glu Thr Ser Ala Asp His Ser Thr Val Glu Thr Val
1 5 10 15
His Ala Asp Ser Ala Asp Val Ala Ala Asp Pro Gly Ala Lys Ser Ala
20 25 30
Leu Val Ser Asp Asn Val Phe Glu His Gln Gln Thr Val Arg Pro Gly
35 40 45
Asp Phe Arg Pro Thr Gln Cys Gly Ser Gly Gly Arg Ser Ser Ser Thr
50 55 60
Ser Val Pro Ser Asp Gly Thr Ser Lys Lys Pro Asn Ser Arg Ser Ala
65 70 75 80
Ile Pro Val

<210> 33038
<211> 194
<212> PRT
<213> A.fumigatus

<400> 33038
Phe Leu Ala Leu Leu Ala Asn Met Ser Thr Ser His Asn Glu Pro Ala
1 5 10 15
Glu Pro Ile Pro Asp Gly Ile Ile Ala Thr Ala Lys Gln Ser Phe Gly
20 25 30
Asp Leu Phe Arg Trp Lys Gln Arg Val Val Val Thr Asn Glu Ser Gly
35 40 45
Glu Thr His Ala Glu Trp Gln Ala Pro Glu Pro Ile Gln Asn Pro Ile
50 55 60
Ser Leu Leu Met Gln Leu Gly Ala Arg Asp Trp Arg Phe Phe Leu Val
65 70 75 80
Gly Phe Phe Ala Trp Thr Ala Asp Ala Phe Asp Phe His Ala Leu Ser
85 90 95
Ile Gln Thr Val Lys Leu Ser Lys Tyr Tyr His Arg Ser Lys Thr Asp
100 105 110
Ile Ser Thr Ala Ile Thr Leu Thr Leu Leu Leu Arg Ser Val Gly Ala
115 120 125
Ala Phe Phe Gly Leu Ala Gly Asp Arg Phe Gly Arg Lys Trp Pro Met
130 135 140
Val Ile Asn Met Ile Val Leu Gly Ile Leu Gln Ile Ala Thr Ile Tyr
145 150 155 160
Ser Arg Thr Phe Gln Gln Phe Leu Ala Val Arg Ser Leu Phe Gly Leu
165 170 175
Phe Met Gly Gly Val Tyr Gly Asn Ala Ile Ala Met Ala Leu Glu His
180 185 190
Cys Pro

<210> 33039
<211> 65
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (50)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33039
Ser Glu Leu Glu Ala Asp Glu Leu Thr Ala Gly Ala Ser Ile Gly Val
1 5 10 15
Gly Leu Val Arg Ile Cys Phe Pro Lys Ser Lys Gln Phe Leu Glu Ala
20 25 30
Lys Asn Ala Gly Lys Lys Ala Thr Asp Pro Gly Ala Phe Trp Arg Glu
35 40 45
Thr Xaa Gln Met Leu Gly Lys Glu Trp Lys Met Cys Ile Tyr Cys Val
50 55 60
Phe
65

<210> 33040
<211> 254
<212> PRT
<213> A.fumigatus

<400> 33040
Gln Leu Pro Gln Val Ser Ile Phe Cys Ser Cys Leu His Val Pro Arg
1 5 10 15
Asp Asp His Ser Asn Ala Thr His Arg Trp Leu Phe Val Pro Arg Ser
20 25 30
Cys Cys Val Leu Tyr Val Pro Glu Arg His Gln His Leu Ile Arg Thr
35 40 45
Thr Ile Pro Thr Ser Trp Gly Tyr Ile Pro Ser Pro Asp Ala Pro Glu
50 55 60
Thr Thr Pro Ser Ile Met Lys Ser Asp Asp Pro Ser Lys Thr Pro Phe
65 70 75 80
Glu Ser Leu Phe Glu Phe Val Ala Thr Asn Asp Asp Ala Pro Tyr Phe
85 90 95
Cys Val Pro Ala Ala Leu Lys Phe Arg Asn Glu Ile Cys Gly Gly Glu
100 105 110
Glu Arg Ile Tyr Thr Tyr Leu Glu Thr Leu Ala Asn Glu Ala Ala Asp
115 120 125
Leu Leu Ala Ala Val Leu Asp Thr Glu Val Leu Gln Glu Pro Asn Arg
130 135 140
Lys Ser Gly Val Pro Ser Gln Leu Arg Arg Cys Gly Met Ser Thr Val
145 150 155 160
Gln Leu Pro Ile Ala Ile Gln Gly Arg Pro Gly Pro Ile Lys Pro Ser
165 170 175
Tyr Leu Val Leu Gln Ala Asp Lys Val Ala Ser Thr Ile Asn Trp Phe
180 185 190
Gln Thr Thr Leu Ala His Lys Tyr Gly Thr Phe Val Pro Val Phe Ala
195 200 205
His Gly Asn Arg Leu Trp Thr Arg Leu Ser Ala Gln Val Tyr Leu Glu
210 215 220

```
Ile Ser Asp Phe Ala Trp Leu Ala Gly Val Leu Lys Glu Met Cys Gly
225                 230                 235                 240
Glu Leu Arg Ser Lys Gln Gly Gly Val Asp Gln Arg Leu Arg
                245                 250

<210> 33041
<211> 441
<212> PRT
<213> A.fumigatus

<400> 33041
Arg Ser Ser Glu Ser Pro Arg Pro Met Thr Met Cys Ala Gly Leu Arg
1               5                   10                  15
Lys Gly Ser Phe Thr Leu Leu Val Asn Phe Leu Asp Lys His Pro Gln
            20                  25                  30
Val Glu Phe Ile Arg Tyr Gln Trp Ile Asp Tyr Ala Gly Ile Ile Arg
        35                  40                  45
Ala Arg Val Val Pro Val Ser Asn Ala Leu Lys Leu Ala Ser Thr Glu
    50                  55                  60
Ser Pro Leu Cys Gly Gly Arg Ile Cys Leu Thr Ala Thr Asn Val Ile
65                  70                  75                  80
Arg Met Met Glu Asn Arg Ser His Val Gly Val Asp Ser Ile Tyr Pro
                85                  90                  95
Asp Phe Ser Ser Leu Arg Glu Cys His Tyr Ala Pro Gly His Ala Ser
            100                 105                 110
Val Met Cys Phe Ile Ser Glu Gly Asp Met Gly Phe Glu Arg Asp Pro
        115                 120                 125
Arg Thr Leu Leu Gly Ser Ile Val Ala Ser Ala Pro Gln Val Gln Phe
    130                 135                 140
Arg Ile Gly Phe Glu Val Glu Phe Arg Cys Leu Thr Pro Glu Gly Lys
145                 150                 155                 160
Asp Leu Asp Asp Thr Leu Tyr Ser Trp Trp Thr Thr Thr Gly Leu Arg
                165                 170                 175
Asn Arg Cys Ala Pro Ile Ile Asp Glu Val Val Arg Leu Leu Gln Arg
            180                 185                 190
Glu Lys Ile Glu Val Leu His Tyr Cys Ser Glu Ser Gly Leu Gly Met
        195                 200                 205
Phe Glu Ile Ala Thr Gly Pro Leu Ser Pro Leu Glu Ser Ile Asp Ala
    210                 215                 220
Trp Val Tyr Thr Arg Glu Ala Val Lys Ser Leu Phe Trp Glu His Gly
225                 230                 235                 240
Met Ile Ala Thr Leu Tyr Pro Ser Pro Val Glu Val His Thr Gly Ile
                245                 250                 255
Gly Ala His Phe His Leu Ser Met Thr Ser Asp Leu Glu Val Asp Glu
            260                 265                 270
Ser Ala Phe Leu Ala Gly Met Leu Gly Gln Leu Gly Gly Leu Cys Ala
        275                 280                 285
Leu Ala Met Pro Phe Glu Asp Ser Tyr Lys Arg Val Thr Asp Arg Lys
    290                 295                 300
Ser Glu Ala Gly Cys Trp Ile Gly Trp Gly Thr Glu Asn Arg Asp Phe
305                 310                 315                 320
Pro Ile Arg Lys Val Lys Lys Arg His Trp Glu Val Arg Cys Cys Asp
                325                 330                 335
Ala Thr Ala Asn Leu Tyr Leu Val Val Ala Gly Phe Ile Asn Ala Gly
            340                 345                 350
Leu Gly Gly Leu Gln Thr Gly Lys Gln Leu Val Trp Gln Asp Cys Asn
```

```
        355                 360                 365
Ser Asn Pro Val Ala Leu Asp Glu Glu Thr Arg Arg Glu Leu Gly Ile
    370                 375                 380
Arg Gln Arg Met Pro Thr Asp Leu Ser Glu Ser Leu Arg Glu Leu Glu
385                 390                 395                 400
Lys Trp Asp Gly Gly Ala Met Gly Lys Cys Leu Arg Thr Phe Cys Glu
                405                 410                 415
Met Lys Lys Gln Glu Ile Arg Asp Leu Gly Glu Val Ser Asp Glu Arg
            420                 425                 430
Arg Leu Arg Asp Met Ile Arg His Phe
        435                 440
```

<210> 33042
<211> 204
<212> PRT
<213> A.fumigatus

<400> 33042

```
Tyr Leu Arg Tyr Gly Ser Gly Ser Phe Gly Thr Tyr Pro Thr Ala Val
1               5                   10                  15
Arg Glu Ala Leu Arg Gly Phe Gln Asp Ala Ala Glu Ala Arg Pro Asp
            20                  25                  30
Pro Phe Ile Arg Tyr Thr Thr Pro Lys Ala Leu Asp Ala Ser Arg Glu
        35                  40                  45
Ala Ile Ala Lys Met Leu Asn Val Pro Arg His Glu Cys Val Phe Val
    50                  55                  60
Lys Asn Ala Thr Thr Gly Val Asn Thr Ile Leu Gln Asn Ile Pro Phe
65                  70                  75                  80
Gln Ser Gly Asp Val Ile Ile Tyr Phe Glu Thr Ile Tyr Gly Ala Leu
                85                  90                  95
Glu Lys Gly Ile Ile Ala Leu Met Glu Ser Thr Pro Leu Gln Ala Arg
            100                 105                 110
Lys Val Gln Tyr Gln Cys Pro Ile Ser His Gly Asp Leu Val Glu Gln
        115                 120                 125
Phe Leu Glu Val Val Arg Asn Thr Arg Ala Glu Gly Leu Asn Val Lys
    130                 135                 140
Ile Ala Leu Phe Asp Val Val Ser Ser Leu Pro Ala Met Arg Phe Pro
145                 150                 155                 160
Phe Glu Arg Leu Thr Asp Val Cys Arg Glu Glu Gly Ile Leu Ser Leu
                165                 170                 175
Ile Asp Gly Ala His Gly Ile Gly Gln Ile Pro Leu Asp Leu Gly Arg
            180                 185                 190
Leu Gln Pro Asp Phe Phe Thr Ser Asn Cys His Lys
        195                 200
```

<210> 33043
<211> 82
<212> PRT
<213> A.fumigatus

<400> 33043

```
Arg Gln Asp Leu Gly Cys Glu Phe Val Glu Ala Ser Ala Lys Asn Cys
1               5                   10                  15
Ile Asn Val Glu Lys Ala Phe Tyr Asp Val Val Arg Met Leu Arg Gln
            20                  25                  30
Gln Arg Gln Gln Gln Gln Gly Gly Arg Ala Gln Asp Arg Arg Pro Thr
```

```
        35                  40                  45
Gly Leu Gly Pro Met Arg Asp Arg Asp Ala Gly Pro Glu Tyr Pro Lys
    50                  55                  60
Thr Phe Arg Pro Asp Arg Ala Arg His Arg Gly Gly Ile Lys Cys Val
65                  70                  75                  80
Ile Leu
```

<210> 33044
<211> 214
<212> PRT
<213> A.fumigatus

<400> 33044

```
Val Arg Leu Val Ser Phe Cys Phe Leu Ser Ser Val Ile Leu Phe Leu
1               5                   10                  15
Gln Phe Cys Tyr Pro Thr Thr Pro Arg Val Trp Leu Gly Phe Arg Ile
            20                  25                  30
Leu Arg Arg Ala Phe Ile Leu Trp Ile Arg His Ile Val Glu Val Ile
        35                  40                  45
Pro Ser His Thr His Phe Ser Pro Ser Arg Cys Thr Val Ser Cys Leu
    50                  55                  60
Ser Asp Arg Glu Leu Ser Phe Pro Arg Leu Asn Lys Lys Lys Gly Arg
65                  70                  75                  80
Met Ser Thr Gln Gln Thr Val His Ala Gln Ser Leu His Ser Pro Glu
                85                  90                  95
Ser Phe Trp Ser Tyr His Ala Thr Lys Leu His Trp His Lys Lys Pro
            100                 105                 110
Ser Gln Thr Leu Val Arg Arg Pro Lys Thr Leu Pro Ser Gly Val Thr
        115                 120                 125
His Glu His Trp Ser Trp Phe Pro Asp Gly Glu Ile Ser Thr Thr Tyr
    130                 135                 140
Asn Cys Val Asp Arg His Val Ala Ala Gly Arg Gly Glu Asn Val Ala
145                 150                 155                 160
Ile Ile Trp Asp Ser Pro Val Thr Gly Val Lys Glu Lys Tyr Thr Tyr
                165                 170                 175
Ser Gln Leu Leu Asp Glu Val Glu Val Leu Ala Gly Val Leu Arg Glu
            180                 185                 190
Glu Gly Val Arg Lys Gly Asp Val Val Ile Ile Tyr Ser Met Tyr Leu
        195                 200                 205
Ser Ser Gly Pro Gly Thr
    210
```

<210> 33045
<211> 98
<212> PRT
<213> A.fumigatus

<400> 33045

```
Phe Ile Cys Gly Val Phe Thr Pro Tyr Met Leu Asn Pro Gly Ala Trp
1               5                   10                  15
Asp Trp Gly Asn Tyr Thr Gly Phe Phe Trp Gly Gly Ile Cys Phe Leu
            20                  25                  30
Cys Ile Ile Tyr Thr Tyr Phe Arg Val Pro Glu Pro Arg Gly Arg Ser
        35                  40                  45
Phe Ala Glu Leu Asp Leu Leu Phe Glu Arg Lys Val Ser Ala Arg Lys
```

```
    50                  55                  60
Phe Ser Ser Thr His Val Asp Val Phe Asp Glu Thr Val Glu Ser Gln
65                  70                  75                  80
Val Val Ser Asp Tyr His Ala Gln Gln Met Ala Ala Ala Gly Val Thr
                85                  90                  95
Gln Lys
```

<210> 33046
<211> 132
<212> PRT
<213> A.fumigatus

<400> 33046

```
Leu Leu Met Pro Thr Leu Asp Ser Leu Gly Arg Asn Thr Pro Leu Leu
1               5                   10                  15
Arg Leu Leu Ala Ala Glu Val Leu Pro Arg Gln Asp Gln Leu His Arg
            20                  25                  30
Leu Ala Leu Ala Asp Gly Val Gly Glu Thr Leu Arg Thr Ala Arg Ala
        35                  40                  45
Gly Asp His Ser Gln Leu Asp Leu Gly Leu Pro Glu Gly Gly Ala Ser
    50                  55                  60
Gly Ala Val Asp Asp Val Ala His Glu Gly Glu Leu Ala Ala Ala Ala
65                  70                  75                  80
Glu Gly Val Ala Gly Asp Gly Gly Asp Asp Gly Leu Ala Asp Gly Val
                85                  90                  95
Gly Glu Val Arg Pro Arg Gly Asp Glu Val Val Gly Val Ser Val Gly
            100                 105                 110
Glu Gly Gln Trp Gly His Phe Leu Asp Val Gly Ala Gly Trp Thr Val
        115                 120                 125
Ser Ala Gly Leu
    130
```

<210> 33047
<211> 76
<212> PRT
<213> A.fumigatus

<400> 33047

```
Leu Arg Ser Tyr Gln Tyr Gln Thr Ser Leu Asp Ala Leu Thr Pro Tyr
1               5                   10                  15
Thr Thr Tyr Arg Trp Ile Gly Ser Val Val Leu Leu Leu Ile Phe Phe
            20                  25                  30
Leu Arg Ile Ile Leu Ala Gln Gly Trp Tyr Ile Gly Met Arg Leu Ser
        35                  40                  45
Leu Ser Ser Val Gln Leu Pro Asn Cys Lys Phe Thr Asn Ile Tyr Pro
    50                  55                  60
Cys Ser Gln Ser His Thr Pro Ser Ala Ser Thr Ser
65                  70                  75
```

<210> 33048
<211> 120
<212> PRT
<213> A.fumigatus

<400> 33048

```
Ser Leu Leu Pro Asn Asn Pro Trp Asn Ser Arg Leu Ser Tyr Ser Thr
1               5                  10                  15
Pro Ser Arg Ser Glu Ser Ser Trp Leu Leu Phe Thr Thr Ser Leu Ala
            20                  25                  30
Ala Arg Thr Leu Thr Arg Leu Tyr Pro Ala Ile Val Ser Ala Val Leu
        35                  40                  45
Ser Ala Ser Ala Ser Ser Ser Ser Cys Pro Pro Ser Thr Ala Leu Ala
    50                  55                  60
Ala Thr Pro His Cys Ser Ala Ser Leu Pro Leu Lys Phe Phe Pro Val
65                  70                  75                  80
Arg Ile Ser Ser Ile Ala Leu Leu Leu Pro Thr Ala Trp Val Arg Arg
                85                  90                  95
Cys Glu Pro Pro Ala Pro Gly Ile Thr Pro Ser Leu Ile Ser Gly Cys
            100                 105                 110
Pro Lys Val Ala Leu Ala Val Gln
        115                 120
```

<210> 33049
<211> 97
<212> PRT
<213> A.fumigatus

<400> 33049

```
His Leu Pro Met Phe Ala Val Ala Tyr Thr Leu Gly Ile Tyr Leu Leu
1               5                  10                  15
Asn Leu Phe Leu Leu Phe Leu Gln Pro Lys Phe Asp Pro Ser Leu Thr
            20                  25                  30
Gln Asp Glu Gly Leu Glu Asp Gly Asp Ala Ser Ala Ser Leu Pro Thr
        35                  40                  45
Lys Gln Asp Asp Glu Phe Arg Pro Phe Ile Arg Arg Leu Pro Glu Phe
    50                  55                  60
Lys Phe Trp His Ser Ala Thr Arg Ala Ile Ala Ile Gly Phe Val Cys
65                  70                  75                  80
Ser Trp Phe Pro Val Phe Asp Ile Pro Val Phe Trp Pro Val Leu Val
                85                  90                  95
Val
```

<210> 33050
<211> 192
<212> PRT
<213> A.fumigatus

<400> 33050

```
Tyr Arg Pro Ala Gly Ala Asp Ile Lys Glu Met Ala Pro Leu Thr Phe
1               5                  10                  15
Ser Asn Ala Tyr Thr Asn Asn Phe Ile Ala Pro Trp Ser His Phe Ala
            20                  25                  30
Asn Ser Val Arg Lys Pro Val Ile Ala Ala Val Ser Gly Tyr Ala Leu
        35                  40                  45
Gly Gly Gly Cys Glu Leu Ala Leu Met Cys Asp Ile Ile Tyr Cys Thr
    50                  55                  60
Ala Ser Ala Thr Phe Gly Gln Pro Glu Ile Lys Leu Gly Val Ile Pro
65                  70                  75                  80
Gly Ala Gly Gly Ser Gln Arg Leu Thr His Ala Val Gly Lys Ser Lys
                85                  90                  95
```

```
Ala Met Glu Leu Ile Leu Thr Gly Lys Asn Phe Ser Gly Lys Glu Ala
            100                 105                 110
Glu Gln Trp Gly Val Ala Ala Lys Ala Val Glu Gly Gly His Glu Glu
        115                 120                 125
Leu Leu Ala Glu Ala Leu Lys Thr Ala Glu Thr Ile Ala Gly Tyr Ser
    130                 135                 140
Arg Val Ser Val Leu Ala Ala Lys Glu Val Val Asn Lys Ser Gln Glu
145                 150                 155                 160
Leu Ser Leu Arg Glu Gly Val Glu Tyr Glu Arg Arg Leu Phe His Gly
                165                 170                 175
Leu Phe Gly Ser Lys Asp Gln Lys Ile Gly Glu Phe Leu Ser Gly Asp
            180                 185                 190
```

<210> 33051
<211> 108
<212> PRT
<213> A.fumigatus

<400> 33051

```
Gly Ile Thr Val Thr Leu Met Leu Arg Ser Val Gly Ala Leu Ile Ser
1               5                   10                  15
Gly Phe Phe Ser Asp Arg Tyr Gly Arg Lys Trp Pro Phe Ile Ile Thr
            20                  25                  30
Leu Ser Ala Phe Ile Val Leu Glu Leu Val Ser Gly Phe Cys Gln Asn
        35                  40                  45
Leu Pro Gln Phe Leu Gly Val Arg Ala Leu Tyr Gly Ile Ala Met Gly
    50                  55                  60
Gly Met Ile Ala Leu Glu Asp Arg Ile Tyr Ser Cys Pro Val Asp Lys
65                  70                  75                  80
Cys Val Arg Ser Leu Trp Pro Gly Arg Cys His Arg Ser Arg Gly Pro
                85                  90                  95
Ser Leu Arg Cys Ser Arg Ser Val Ile Gly Leu Phe
            100                 105
```

<210> 33052
<211> 92
<212> PRT
<213> A.fumigatus

<400> 33052

```
Tyr Ser Leu Arg Tyr Ser Lys Asn Lys Ile Arg Asn Pro Ile Ser Val
1               5                   10                  15
Leu Arg Glu Leu Thr Thr His Gln Trp Leu Met Phe Leu Val Gly Phe
            20                  25                  30
Leu Gly Trp Thr Trp Asp Ser Phe Asp Phe Phe Thr Val Ser Met Thr
        35                  40                  45
Val Thr Glu Ile Ala Lys Asp Phe Asp Thr Ser Val Thr Ser Val Thr
    50                  55                  60
Trp Val Ser Ser Ser Ser Leu Val Tyr Pro Glu Arg Gln His Ala Asp
65                  70                  75                  80
Ile Cys Cys Ser Ser Ala Arg Ala Ser Pro Ser Pro
                85                  90
```

<210> 33053
<211> 131
<212> PRT

<213> A.fumigatus

<400> 33053
Ser Pro Trp Lys Thr Val Ser Ile Pro Val Leu Leu Thr Ser Val Ser
1 5 10 15
Gly Leu Phe Gly Pro Ala Ala Ala Thr Ala Leu Glu Asp Leu Pro Tyr
20 25 30
Asp Ala Arg Gly Val Leu Ser Gly Cys Phe Glu Met Gly Tyr Ala Val
35 40 45
Gly Tyr Leu Leu Ala Ala Ala Phe Tyr Arg Ala Leu Val Pro Thr Thr
50 55 60
Ser His Gly Trp Arg Ser Leu Phe Trp Ile Gly Ala Ala Pro Pro Val
65 70 75 80
Leu Ile Ile Phe Phe Arg Trp Met Leu Pro Glu Thr Asn His Phe Gln
85 90 95
Val Met Val Ala Glu Arg Glu Glu Arg Ile Arg Leu Ala His Ala Gly
100 105 110
Asp Asp His Val Arg Ala Asn Gly Leu Arg Ser Phe Leu Lys Asp Ser
115 120 125
Gly Thr Arg
130

<210> 33054
<211> 76
<212> PRT
<213> A.fumigatus

<400> 33054
Arg Leu Leu Arg Ala Gly Phe Leu Pro Gly Ala Val Leu Val Ile Ser
1 5 10 15
Lys Trp Tyr Leu Pro Asn Glu Thr Gln Thr Arg Ile Ala Ile Leu Tyr
20 25 30
Thr Ser Ala Ala Ser Gly Gly Ala Phe Ser Gly Leu Leu Ala Phe Ala
35 40 45
Ile Ala Lys Met Asp Gly Thr Ala Gly Tyr Glu Gly Trp Arg Trp Val
50 55 60
Ser Ser Ser Trp Leu Ser Phe Val Pro Ser Ser Asn
65 70 75

<210> 33055
<211> 294
<212> PRT
<213> A.fumigatus

<400> 33055
His Ser Arg Gln Ile Phe Ile Ile Glu Gly Leu Val Thr Val Gly Met
1 5 10 15
Ser Val Ala Cys Tyr Leu Leu Leu Leu Asp Ser Pro Tyr Leu Ser Pro
20 25 30
Gly Trp Leu Thr Pro Asp Glu Ile Arg Phe Leu Glu Val Arg Gln Leu
35 40 45
Ala Ser Ser Ser His Ser Ala His Asp Gly Ala Phe Ser Lys Arg Val
50 55 60
Ile Phe Ser Val Leu Thr Asp Trp Lys Ile Tyr Leu Leu Ile Leu Ala
65 70 75 80
Asn Trp Ser Asn Ala Val Pro Asn Tyr Ala Leu Lys Phe Ser Met Pro

```
                85                  90                  95
Glu Ile Val Lys Ser Met Gly Tyr Lys Ser Ala Lys Ala Gln Leu Leu
            100                 105                 110
Thr Ile Pro Pro Tyr Ala Ile Gly Ala Ala Ser Ala Tyr Gly Phe Ser
        115                 120                 125
Val Phe Ala Asp Arg Ser Ser Trp Arg Met Pro Phe Ile Val Val Pro
    130                 135                 140
Gln Met Ser Leu Ile Val Ala Phe Ser Ile Leu Phe Ser Lys Ala Ala
145                 150                 155                 160
Asp Ile Glu Asn Asn Ile Ala Leu Cys Tyr Phe Gly Ile Cys Leu Ala
                165                 170                 175
Cys Phe Gly Met Tyr Pro Ile Leu Pro Gly Val Asn Ser Trp Asn Ile
            180                 185                 190
Cys Asn Ile Pro Asn Pro Gln Lys Arg Ala Val Ala Ile Gly Tyr Leu
        195                 200                 205
Ile Cys Thr Gly Asn Ala Gly Gly Ile Ile Gly Ser Tyr Ile Tyr Lys
    210                 215                 220
Ala Asp Glu Lys Pro Arg Tyr Pro Thr Gly Tyr Gly Thr Ser Phe Ala
225                 230                 235                 240
Phe Ala Ala Ala Gly Ile Met Ala Cys Leu Val Leu Glu Phe Ser Leu
                245                 250                 255
Trp Thr Ala Asn Lys Lys Lys Gly Arg Met Ser Arg Ala Glu Val Glu
            260                 265                 270
Glu Ile Tyr Asn Glu Asp Gln Leu Arg Glu Met Gly Glu Lys Ser Pro
        275                 280                 285
His Phe Ser Tyr Thr Leu
    290

<210> 33056
<211> 110
<212> PRT
<213> A.fumigatus

<400> 33056
Asp Ser Val Asp Arg Ser Ser Pro Ser Gln Leu Gly Gly Ser Leu Arg
1               5                   10                  15
Val Ile Arg Glu Ile Ser Arg Arg Glu Gly Gly Ile Thr Ala Phe Tyr
            20                  25                  30
Arg Gly Leu Thr Pro Asn Ile Ile Gly Asn Ser Thr Ser Trp Ala Leu
        35                  40                  45
Tyr Phe Leu Cys Tyr Gly Lys Thr Lys Asp Leu Met Arg Arg Leu Arg
    50                  55                  60
Gly Ser Arg Val Leu Glu Leu Thr Ser Ala Asp Tyr Phe Val Ala Ser
65                  70                  75                  80
Gly Leu Ala Gly Met Ile Leu Arg Pro Ser Val Phe His Trp Thr Ser
                85                  90                  95
Met Leu Thr Lys Ser His Leu Leu Ile Ala Leu Tyr Ser Leu
            100                 105                 110

<210> 33057
<211> 224
<212> PRT
<213> A.fumigatus

<400> 33057
Leu Leu Cys Cys Ile Arg Thr Gly Arg Tyr Asp Pro Ala Pro Ile Cys
```

```
1               5                   10                  15
Val Ser Leu Asp Phe Asn Ala His Glu Ile Thr Phe Ala Asn Cys Thr
            20                  25                  30
Ile Phe Ala Leu Gly Leu Ala Thr Ser Phe Leu Thr Asn Pro Ile Trp
        35                  40                  45
Val Ile Lys Thr Arg Met Leu Ser Thr Gly Ser Asn Ala Pro Gly Ala
    50                  55                  60
Tyr Ala Ser Phe Thr Thr Gly Val Thr Gln Ile Tyr Arg Ser Glu Gly
65                  70                  75                  80
Ile Ser Gly Phe Tyr Arg Gly Leu Leu Pro Ala Leu Phe Gly Val Ser
                85                  90                  95
His Gly Ala Leu Gln Phe Met Ala Tyr Glu Lys Leu Lys Ala Tyr Arg
            100                 105                 110
Thr Arg Met Ser Ser Ala Ser Arg Thr Ser Gly Asp Ser Ile Gly Leu
        115                 120                 125
Gly Ala Thr Pro Ala Arg Gln Leu Gly Asn Ile Asp Phe Phe Leu Thr
    130                 135                 140
Ser Ser Leu Ser Lys Ile Phe Ala Gly Cys Val Thr Tyr Pro Tyr Gln
145                 150                 155                 160
Val Leu Arg Ser Arg Leu Gln Thr Tyr Asp Ala His Leu Val Tyr Arg
                165                 170                 175
Gly Val Arg Asp Ala Met Ala Gln Ile Trp Ala Gln Glu Gly Phe Gly
            180                 185                 190
Gly Phe Tyr Lys Gly Leu Gly Pro Asn Leu Leu Arg Val Leu Pro Ser
        195                 200                 205
Thr Trp Val Thr Phe Leu Val Tyr Glu Asn Thr Lys Ser Cys Leu Thr
    210                 215                 220
```

<210> 33058
<211> 121
<212> PRT
<213> A.fumigatus

<400> 33058

```
Trp Thr Gly Lys Ser His Gln Asn Lys Phe His Ala Thr Thr Leu Arg
1               5                   10                  15
Thr Leu Thr Leu Lys Phe Ser Gln Met Ser Glu Thr Gln Leu Met Asn
            20                  25                  30
Pro Gln Asp Arg Gln Leu Trp Glu Tyr Phe Ala Asn Leu Tyr Lys Asn
        35                  40                  45
Ser Asn Lys Gly Ile Lys Gly Arg Gly Lys Asp Arg Arg Ile Ser Pro
    50                  55                  60
Thr Ser Lys Ser Ser Asp Ser Ser Ala Ser Cys Thr Arg Met Gln Ser
65                  70                  75                  80
Leu Glu Ser Asp Glu Asp Leu Lys Ala Ser Cys Gly Ser Arg Glu Ala
                85                  90                  95
Ser Ser Ala Tyr Thr Ser Ser Ser Ser Gly Glu Glu Glu Asp Pro Glu
            100                 105                 110
Ile Tyr Tyr Thr Asp Arg Lys Gly His
        115                 120
```

<210> 33059
<211> 90
<212> PRT
<213> A.fumigatus

<400> 33059
Thr His Gln Arg Arg His Thr Gly Glu Lys Pro Phe Ser Cys Asp Ile
1 5 10 15
Cys Gln Lys Arg Phe Ala Gln Arg Gly Asn Val Arg Ala His Lys Ile
20 25 30
Thr His Gln His Ala Lys Pro Phe Thr Cys Leu Leu Asp Asp Cys Gly
35 40 45
Lys Gln Phe Thr Gln Leu Gly Asn Leu Lys Val Tyr Cys Leu Met Lys
50 55 60
Gln Val Ala Leu Ile Pro Glu Thr Leu Trp Ala Asn Gly Leu Glu Ser
65 70 75 80
Arg Thr Arg Thr Ser Ser Thr Pro Leu Arg
85 90

<210> 33060
<211> 65
<212> PRT
<213> A.fumigatus

<400> 33060
Ser Leu Thr Cys Ser Gly Asn Pro Gln Val Val Ile Asp Gly Lys Gly
1 5 10 15
His Leu Leu Gly Arg Leu Ala Ser Thr Val Ala Lys Gln Leu Leu Asn
20 25 30
Gly Gln Lys Ile Val Val Val Arg Cys Glu Ala Leu Asn Ile Ser Gly
35 40 45
Glu Phe Phe Arg Ala Lys Arg Thr Ser Ser Asp Ser Phe Phe His Pro
50 55 60
Leu
65

<210> 33061
<211> 161
<212> PRT
<213> A.fumigatus

<400> 33061
Arg Arg Lys Arg Arg Val Glu Gln Arg His Thr Glu Thr Trp Arg His
1 5 10 15
Leu Glu Met Leu Arg Leu Phe Asp Thr Gly Ser Glu Gln Arg Ala Asp
20 25 30
Ile Ala Thr Ser Asp Asp Ile Val Lys Tyr His Ala Tyr Leu Arg Lys
35 40 45
Met Thr Arg Tyr Asn Pro Thr Arg Gly Gly Pro Phe His Phe Arg Ala
50 55 60
Pro Ser Arg Ile Phe Tyr Lys Ala Val Arg Gly Met Ile Pro His Lys
65 70 75 80
Thr Pro Arg Gly Ala Ala Ala Leu Glu Arg Leu Lys Val Phe Glu Gly
85 90 95
Val Pro Pro Pro Tyr Asp Lys Lys Lys Arg Val Val Val Pro Gln Ala
100 105 110
Leu Arg Val Leu Arg Leu Arg Pro Gly Arg Lys Tyr Cys Thr Val Gly
115 120 125
Arg Leu Ser His Glu Val Gly Trp Lys Tyr Gln Asp Val Val Ala Arg
130 135 140
Cys Val Ile Ile Ala Leu Asp Tyr Trp Ser Phe Trp Cys Tyr Gly His

145 150 155 160
Gly

<210> 33062
<211> 62
<212> PRT
<213> A.fumigatus

<400> 33062
Ile Tyr Ala Pro Gly Glu Cys Leu Ala Ser Leu Thr Leu Lys Ile Tyr
1 5 10 15
Glu Ser Gly Leu Phe Trp Leu Ala Thr Ala Thr Glu Ala Phe Thr Gln
20 25 30
Val Ile Trp Ser Gly Phe Arg Cys Pro Val Leu Met Gly Pro Ile Cys
35 40 45
Ile Pro Pro Lys Ser Arg Asp Leu Ala Pro Asn His Ala Asn
50 55 60

<210> 33063
<211> 89
<212> PRT
<213> A.fumigatus

<400> 33063
Ser Arg Glu Pro Pro Leu Leu Pro Leu Val Asn Ser Ser Pro Val Gly
1 5 10 15
Arg Phe Leu Gly Pro Glu Asp Lys Leu Phe Leu Asp Arg Pro Val Ser
20 25 30
Asp Cys Ser Ala Lys Lys Glu His Leu Val Val Leu Ser Leu Ile Val
35 40 45
Val Tyr Leu Leu Arg Thr Leu Trp Ile Val Ala Gly Asp Val Ser Ile
50 55 60
Phe Thr Arg Gln Ala Asp Ser Gly Val Lys Phe Ile Leu Ile Lys Phe
65 70 75 80
Ser Gln Gly Met Thr Leu Thr Ala Leu
85

<210> 33064
<211> 79
<212> PRT
<213> A.fumigatus

<400> 33064
Gln Gln Ser Arg Leu Ile Tyr Ser Leu Arg Arg Leu Met Arg Leu Gln
1 5 10 15
Lys Thr Arg Phe Val Cys Val Ser Asp Thr His Gly Tyr Ala Pro Ser
20 25 30
Glu Ala Gly Phe Lys Leu Pro Ala Gly Asp Val Leu Ile His Ala Gly
35 40 45
Asp Leu Thr Asn Gln Gly Ser Leu Ser Glu Leu Arg Lys Thr Ile Glu
50 55 60
Trp Ile Ser Lys Ala Asp Tyr Glu Val Lys Ile Ile Val Cys Gly
65 70 75

<210> 33065

<211> 280
<212> PRT
<213> A.fumigatus

<400> 33065
Asp Leu Cys Ser Gly His Glu Phe Val His Asp Gln Tyr Met Arg Asp
1 5 10 15
Thr Ile Ala Asn Asp Glu Glu Leu Gln Ser Arg Lys Arg Ala Arg Tyr
20 25 30
Glu Asp Asp Ser Thr Gln Ser Thr Gln Gln Phe Ile Ser Val Asp Ala
35 40 45
Ser Ile Asp Gly Ser Pro Thr Val Met Pro Asn Ala Gly Glu Pro Glu
50 55 60
Val Gln Ala Arg Arg Arg Pro Thr Thr Thr Leu Ser Ser Arg Glu Thr
65 70 75 80
Val Pro Asp Ala Thr Ile Asp Leu Lys Val Lys Lys Ala Ser Pro Gln
85 90 95
Pro Leu Pro Ile Pro Thr Ser Thr Pro Glu Ala Ala Lys Ala Lys Arg
100 105 110
Asn Glu Ile Arg Arg Ala Trp His Phe Leu Arg Ala Glu Gly Ser His
115 120 125
His Pro Glu Ile Glu Leu Gly Ala Leu Pro Ser Ser Trp Pro Thr Pro
130 135 140
Glu Glu Asp Gly Phe His Leu Pro Asn Arg Gly Ser Ser Glu Thr Gly
145 150 155 160
Asp Glu Thr Arg Thr Arg Thr Gln Asp Asn Met Gln Phe Ala His Asp
165 170 175
His Asp Asp Asp Asn Glu Asp Asp Met Pro Asn Ser Gln Val Thr Ala
180 185 190
Thr Leu Ser Ile Ser Ser Ser Ala Phe Ala Ser Gln Glu Gln Thr Leu
195 200 205
Gly Pro Leu Gln Gln Asp Gly Pro Phe Asp Val Gly Val Asp Ile Pro
210 215 220
Leu Ser Ser Glu Gly Ala Pro Gly Arg Pro Arg Thr Leu Gly Arg Ser
225 230 235 240
Ser Ser Ser Arg Ala Arg Arg Ala Ala Tyr Leu Ala Ala Arg Ala Asp
245 250 255
Ser Tyr Asp Ala Trp Ala Cys Met Gly Leu Val Ser Ala Gly Asp Asn
260 265 270
His Ser Met Glu Glu Thr Glu Leu
275 280

<210> 33066
<211> 147
<212> PRT
<213> A.fumigatus

<400> 33066
Gln Arg Ala Arg Trp Trp Gly Trp Asn Arg Trp Gly Arg Pro Val Leu
1 5 10 15
Asp Ser Leu Val Lys Arg Ser Thr Arg His Arg Cys Gly Gly Trp Gly
20 25 30
Gly Tyr His Leu Arg Gly Asp Asp His Ala Ala Phe Gln Asp Leu Gly
35 40 45
Gly Leu Gly Ala Lys Gly Ala Arg Val Pro Asp Asp Gln Val Gly Glu
50 55 60

```
Leu Ala Asp Leu Asp Ala Ser Asp Gln Val Arg His Ala Leu Arg Asp
65                  70                  75                  80
Gly Arg Val Asp Gly Ile Leu Asp Asp Val Ala Phe Asp Ala Glu Val
                85                  90                  95
Val Arg Ala Gly Ala Leu Val Leu Leu Glu Gly Pro Thr Leu Cys Ile
            100                 105                 110
Val Leu Val Arg Gly Val Pro Gly Ala Gln Asp His Leu Ala Ala Ala
        115                 120                 125
Ala His Gly Leu Arg Ile Arg Leu Asn Arg Arg Arg Trp Lys Leu Met
    130                 135                 140
Ser Arg Glu
145
```

<210> 33067
<211> 128
<212> PRT
<213> A.fumigatus

<400> 33067

```
Phe Pro Thr His Glu Leu Pro Ser Pro Ser Val Lys Thr Asp Ser Gln
1               5                   10                  15
Ala Met Gly Arg Cys Gly Glu Val Ile Leu Arg Thr Trp Asn Thr Ala
            20                  25                  30
His Lys Asn Asn Ala Gln Arg Gly Pro Leu Lys Glu Asp Glu Gly Thr
        35                  40                  45
Gly Ala Asp Asn Phe Arg Val Lys Arg Tyr Ile Ile Lys Tyr Thr Ile
    50                  55                  60
Asn Pro Ala Ile Ala Gln Gly Met Ser His Leu Ile Gly Ser Val Glu
65                  70                  75                  80
Val Ser Lys Leu Ala Asp Leu Val Ile Trp His Pro Ser Thr Phe Gly
                85                  90                  95
Thr Lys Pro Ala Gln Val Leu Lys Ser Gly Met Ile Val Ala Ser Gln
            100                 105                 110
Met Val Pro Ser Pro Pro Pro Thr Pro Val Ser Cys Arg Pro Leu Tyr
        115                 120                 125
```

<210> 33068
<211> 89
<212> PRT
<213> A.fumigatus

<400> 33068

```
Gln Val Gln Ala Phe Val Pro Ser Thr Ser Ile Met Trp Val Ser Gln
1               5                   10                  15
Ala Ser Ile Asp Asp Gly Ile Val Gln Ser Tyr Gly Leu Lys Lys Arg
            20                  25                  30
Ile Glu Ala Val Arg Asn Cys Arg Asn Ile Gly Lys Lys Asp Met Lys
        35                  40                  45
Phe Asn Asp Val Met Pro Lys Met Arg Val Asp Pro Glu Ser Tyr Val
    50                  55                  60
Val Glu Ala Asp Gly Val Leu Cys Asp Ala Glu Pro Ala Glu Ala Leu
65                  70                  75                  80
Pro Leu Thr Gln Asp Tyr Phe Val Tyr
                85
```

<210> 33069

<211> 182
<212> PRT
<213> A.fumigatus

<400> 33069
Gly Asn His Phe Gly Ile Ser Ser Leu Val Leu Arg Lys Phe Lys Met
1 5 10 15
Arg Leu Thr Ser Ile Val Leu Phe Ser Leu Val Ser Leu Gly Phe Ala
20 25 30
Arg Asp Pro Ser Asp Ile Thr His Ser Pro Asn Arg Ser Lys Ala Lys
35 40 45
Gly Ala Gln Leu Glu Ser Tyr Cys Pro Gly Gln Asp Ala Asp Glu Asp
50 55 60
Leu Gln Arg Glu Ile Phe Asn Gln Phe Ile Gln Thr Leu Tyr Glu Asn
65 70 75 80
Lys Asn Val Pro Glu Ala Phe Glu Thr Tyr Val Asp Pro Asp Leu Thr
85 90 95
Glu His Gly Pro Tyr Glu Gln Ser Arg Asp Glu Val Val Glu Ser Leu
100 105 110
Ser Gln Ile Ile Pro Ser Ser Thr Phe Thr Val Val His Ser Ser Tyr
115 120 125
Gly Gly Asp Ile Gly Phe Val His Val Arg Ile Gly Asp Glu Gly Ala
130 135 140
Pro Pro Ala Ala Ala Leu Ala Asp Ile Tyr Arg Met Asp Gly Thr Cys
145 150 155 160
Ile Val Glu His Trp Asp Val Leu Gln Asn Leu Pro Glu Asn Ser Thr
165 170 175
Asn Pro Asn Ala Leu Phe
180

<210> 33070
<211> 384
<212> PRT
<213> A.fumigatus

<400> 33070
Tyr Arg Gly Thr Glu Thr Arg Arg Thr Leu Lys Arg Arg Asn Gln Ala
1 5 10 15
Gly Arg Leu Ala Arg Ser Leu Leu Asn Met Met Ser Arg Ser Gln Ser
20 25 30
Ser Leu Gly Tyr Met Asp Thr Gly Arg Asp Glu Pro Ser Thr Ser Gly
35 40 45
Ala Ser Pro Gly Tyr Gln Gln Pro Pro Ser Thr Ala Gly Pro Ile Asn
50 55 60
Leu Ser Gly Leu Val Cys Asn Val Arg Arg Thr Thr Gly Arg Glu Pro
65 70 75 80
His Pro Leu Val Gly Ala Thr Thr Thr Ile Leu Gly Asp Lys Leu Tyr
85 90 95
Val Phe Gly Gly Arg Val Leu Ser Lys Thr Arg Pro Gln Leu Thr Ser
100 105 110
Asp Leu Tyr Glu Leu Asp Leu Ile Arg Arg His Trp Thr Lys Ile Glu
115 120 125
Ala Thr Gly Asp Ile Pro Arg Pro Arg Tyr Phe His Ser Val Cys Ala
130 135 140
Leu Gly Asp Asn Lys Leu Val Cys Tyr Gly Gly Met Ser Pro Ala Pro
145 150 155 160

```
Asn Ala Ser Lys Glu Ser Ala Ser Asn Gly Ala Ser Gly Gln Glu Gly
                165                 170                 175
Gln Pro Glu Val Val Val Met Ser Asp Ile His Ile Phe Asp Val Pro
            180                 185                 190
Ser Arg Thr Trp Thr Arg Val Pro Ala Thr Asp Ser Pro Gln Gly Arg
        195                 200                 205
Tyr Ala His Cys Ala Thr Ile Leu Pro Ser Ser Ala Phe Phe Thr Ser
    210                 215                 220
Ala Ser Ala Pro Leu Ser Ala Ile His His Asn Pro Ala Ser Ser Asn
225                 230                 235                 240
Pro His Gln Gly Thr Ile Gly Val Asp Ile His Gly Phe Gly Gly Ala
                245                 250                 255
Glu Met Val Leu Val Gly Gly Gln Asp Thr Ser Asn His Tyr Ile Glu
            260                 265                 270
Gln Ile Ser Val Phe Asn Leu Arg Thr Leu Lys Trp Thr Asn Thr Ser
        275                 280                 285
Ser Pro Gly Arg Asn Cys Gly Ala Tyr Arg Ser Val Val Ala Pro Leu
    290                 295                 300
Asn Glu Met Lys Val Ala Asp Ile Gly Ser Ala Ala Ala Asp Arg Glu
305                 310                 315                 320
Thr His Glu Pro Leu Glu Glu Ser Asp Val Glu Ser Cys Ser Met Pro
                325                 330                 335
Ile Phe Ser Gln Leu Pro Leu Pro Gly Cys Gln Ala Trp Ser Ser Thr
            340                 345                 350
Cys Val Cys Pro Asp Gly Pro Leu Glu Leu Lys Lys Pro Met Ala Gln
        355                 360                 365
Cys Gln Arg Ser Pro Pro Gly Leu Glu Asn Ser Pro Asn Arg Gln Gly
    370                 375                 380
```

<210> 33071
<211> 82
<212> PRT
<213> A.fumigatus

```
<400> 33071
Ser Thr Lys Cys Leu Tyr Ser Ile Leu Arg Gln Asn Thr Tyr Asn Thr
1               5                   10                  15
Pro Pro Gly Gln Arg Ala Arg Leu Gly Arg Ile Ile Thr Thr Ile Met
            20                  25                  30
Asp Val Val Ala Ala Val Ser Gly Tyr Ile Ser Lys Met Val Thr Thr
        35                  40                  45
Gly Asp Thr Ala Ser Ala Thr Gly Ser Ser Ser Ser Ala Lys Met Lys
    50                  55                  60
Ile Leu Leu Leu Asp Ser Glu Thr Val Gly Ser Ala Phe Tyr Cys Arg
65                  70                  75                  80
Val Gln
```

<210> 33072
<211> 97
<212> PRT
<213> A.fumigatus

```
<400> 33072
Lys Leu Asn Leu Glu Ala Asp Ser Tyr Asn Ala Gln Met Pro Ile Val
1               5                   10                  15
```

```
Ser Thr Ala Ile Thr Gln Ser Ala Leu Leu Ser His Glu Val Tyr Leu
            20                  25                  30
Ile Asp Arg Leu Glu Asn Ala Ala Arg Glu Lys Met Arg His Leu Arg
        35                  40                  45
Cys Leu Cys Phe Val Arg Pro Ser Pro Thr Ser Ile Gln Phe Leu Ile
    50                  55                  60
Asp Glu Leu Arg Gly Ala Gln Val Arg Gly Val Ser Tyr Leu Pro Glu
65                  70                  75                  80
Gln His Tyr Ser Gln Val Phe Leu Gly Ala Thr Gly Gly Ser Arg Trp
                85                  90                  95
Ala
```

<210> 33073
<211> 104
<212> PRT
<213> A.fumigatus

<400> 33073

```
Gly Arg Pro Arg Ile Phe Ala Cys Gly Asp Ser Ile Asn Leu Arg His
1               5                   10                  15
Pro Tyr Tyr Pro Pro Pro Thr Ala Met Ala Trp Thr His Ser Pro Asp
            20                  25                  30
Ser His Ile Pro Glu Gln Gln Tyr Tyr Ser Ser Met Asp Ile His Pro
        35                  40                  45
Ser Pro Pro Lys Pro Ile Asn Ala Leu Ser Pro Ser Ala Ser Ala Ala
    50                  55                  60
Arg Glu Pro Lys Leu Gln Leu Pro Ser Thr Thr Asp Pro Pro Gly Pro
65                  70                  75                  80
Gln Asn Pro Pro Lys Gln Leu Val Trp Leu Val Arg Leu Pro Leu Leu
                85                  90                  95
Leu Phe Glu Leu His Cys Ala His
            100
```

<210> 33074
<211> 329
<212> PRT
<213> A.fumigatus

<400> 33074

```
Ser Ile Ala Trp Lys Met Pro Pro Ala Lys Arg Cys Asp Ile Cys Ala
1               5                   10                  15
Val Cys Ala Ser Cys Ala Arg Pro Arg Leu Pro Ser Asn Phe Ser Ser
            20                  25                  30
Thr Ser Phe Gly Glu Pro Lys Tyr Gly Glu Tyr His Ile Tyr Leu Ser
        35                  40                  45
Asn Ile Ile Arg Lys Ser Ser Leu Glu Arg Leu Ala Glu Ala Asp Gly
    50                  55                  60
His Glu Val Val Arg Val Val Gln Glu His Phe Ala Asp Phe Leu Val
65                  70                  75                  80
Val Asn Pro Asp Leu Cys Ser Val Asn Leu Gly Phe Pro Asn Gln Arg
                85                  90                  95
Leu Trp Ser His Ser Pro Asp Leu Trp Asn Ala Asp Ala Leu Gln Arg
            100                 105                 110
Ala Thr Glu Gly Val Ile Ala Leu Leu Leu Ala Leu Lys Lys Asn Pro
        115                 120                 125
```

```
Leu Ile Arg Tyr Glu Lys Asn Ser Leu Leu Ala Lys Lys Leu Ala Thr
    130                 135                 140
Glu Val Arg Tyr Gln Val Thr Gln Glu Glu Gln Leu Phe Asn Phe Arg
145                 150                 155                 160
Lys Thr Asp Thr Pro Pro Ile Leu Leu Ile Leu Asp Arg Arg Asp Asp
                165                 170                 175
Pro Ile Thr Pro Leu Leu Thr Gln Trp Thr Tyr Gln Ala Met Val His
            180                 185                 190
Glu Leu Leu Gly Ile Thr Asn Gly Arg Val Asp Leu Arg Gly Val Pro
        195                 200                 205
Asp Ile Arg Pro Glu Leu Arg Glu Ile Val Leu Ser Gln Asp Gln Asp
    210                 215                 220
Pro Phe Phe Lys Lys Asn Met Tyr Gln Asn Phe Gly Asp Leu Gly Gln
225                 230                 235                 240
Asn Ile Lys Glu Tyr Val Glu Gln Tyr Gln Thr Lys Thr Gln Asn Thr
                245                 250                 255
Met Asn Ile Glu Ser Ile Ala Asp Met Lys Arg Phe Val Glu Asp Tyr
            260                 265                 270
Pro Glu Phe Arg Lys Leu Ser Gly Asn Val Ser Lys His Val Thr Leu
        275                 280                 285
Val Gly Glu Leu Ser Arg Arg Val Gly Glu Asp Asn Leu Leu Asp Val
    290                 295                 300
Ser Glu Leu Glu Gln Ser Leu Ala Cys Asn Asp Asn His Ala Asn Asp
305                 310                 315                 320
Leu Lys Val Cys Arg Asp Leu Asn Leu
                325
```

<210> 33075
<211> 212
<212> PRT
<213> A.fumigatus

<400> 33075

```
Thr Leu Gln Arg Ile Ile Gln Leu Pro Thr Val Pro Ala Asp Asn Lys
1               5                   10                  15
Ile Arg Leu Val Ala Leu Tyr Ala Leu Arg Tyr Glu Lys Gln Pro Ser
            20                  25                  30
Asn Ala Leu Pro Val Leu Leu Asp Leu Leu Val Thr Ala Gly Asp Val
        35                  40                  45
Pro Ser Tyr Lys Val Asn Ile Ile Pro Lys Leu Leu Ala Tyr His His
    50                  55                  60
Ser Leu Gln Ala Pro Pro Val Ala Gly Gly Phe Ser Asp Leu Phe Glu
65                  70                  75                  80
Ser Ala Ser Leu Phe Ser Gly Ala Arg Asp Arg Phe Lys Gly Leu Lys
                85                  90                  95
Gly Val Glu Asn Val Tyr Thr Gln His Ser Pro Arg Leu Glu Val Thr
            100                 105                 110
Leu Gln Asn Leu Ile Lys Gly Arg Leu Lys Glu Leu Gln Tyr Pro Phe
        115                 120                 125
Leu Glu Gly Ser Ser His Thr Arg Glu Lys Pro Gln Asp Ile Ile Ile
    130                 135                 140
Phe Met Val Gly Gly Ala Thr Tyr Glu Glu Ala Lys Met Val Ala Gln
145                 150                 155                 160
Val Asn Ala Ser Ser Pro Gly Val Arg Val Val Leu Gly Gly Thr Thr
                165                 170                 175
Ile His Asn Ser Thr Ser Phe Leu Glu Glu Val Asp Asp Ala Val Ser
```

```
            180                 185                 190
Gly Trp Pro Glu Pro Gly Pro Ser Thr Ala Ala Gly Arg Leu Arg Arg
        195                 200                 205
Glu Ile Gly Arg
    210
```

<210> 33076
<211> 322
<212> PRT
<213> A.fumigatus

<400> 33076

```
Ile Phe Gly Ser Thr Gly His Met Gly Arg Ser Leu Val Lys Thr Ala
1               5                   10                  15
Leu Cys Arg Asn Asp Leu Val Ala Ala Val Gly Arg Thr Phe Glu Asn
            20                  25                  30
Ser Pro Glu Ser Met Lys Lys Leu Glu Glu Glu His Glu Asn Cys Leu
        35                  40                  45
Gly Leu Leu Cys Asp Val Arg Ala Arg Glu Thr Val Lys Lys Val Ile
    50                  55                  60
Asp Arg Thr Ile Glu Arg Phe Gly Arg Ile Asp Ile Val Ala Asn Cys
65                  70                  75                  80
Ala Gly Tyr Gly Val Ile Gly Ala Cys Glu Asp Gln Asp Glu Tyr Glu
                85                  90                  95
Ile Arg Asp Gln Phe Glu Thr Asn Phe Thr Gly Thr Leu Asn Met Ile
            100                 105                 110
Gln Leu Ser Leu Pro His Phe Arg Glu Arg Arg Ser Gly Arg Tyr Leu
        115                 120                 125
Ile Phe Ser Ser Thr Ser Gly Ala Leu Gly Val Pro Gly Leu Gly Pro
    130                 135                 140
Tyr Cys Ala Ser Lys Tyr Ala Val Glu Gly Leu Met Glu Ser Met Leu
145                 150                 155                 160
Tyr Glu Val Asp Ser Phe Asn Ile Lys Gly Thr Leu Val Glu Pro Gly
                165                 170                 175
His Met Arg Arg Asp Asp Val Gly Asp Leu Val Ser Asn Thr Ala Thr
            180                 185                 190
Met Pro Ser Asn Glu His Asn Leu Ala Ser Pro Leu Pro Leu Tyr Gly
        195                 200                 205
His Phe Phe Val Lys Gln Pro Ser Glu Pro Tyr Asn Thr Pro Thr Ala
    210                 215                 220
Pro Ala Ala His Ala Arg Arg Met Leu Met Trp Leu Gly Asp Lys Gln
225                 230                 235                 240
Pro Ala Ser Ala Val Lys Ala Ala His Leu Val Trp Gln Leu Gly His
                245                 250                 255
Cys Ser Tyr Pro Pro Leu Arg Leu Val Leu Gly Thr Tyr Ala Val Glu
            260                 265                 270
Ser Ile Arg Asp Arg Leu Lys Cys Ile Ile Glu Glu Ile Glu Asp Trp
        275                 280                 285
Lys Tyr Leu Ser Phe Pro Val Gly Asp Gln Pro Gly Ser Ser Thr Gly
    290                 295                 300
Lys Asp Lys Pro Ser Thr Glu Gly Gly Asp Lys Gln Asp Arg Glu Thr
305                 310                 315                 320
Ala Thr
```

<210> 33077

<211> 61
<212> PRT
<213> A.fumigatus

<400> 33077
Trp Asn Leu His Thr Gln Lys Ser Gly Val Asp Leu Asn Asp His Pro
1 5 10 15
Val Tyr Arg His Arg Met Ala Ser Leu Phe Pro Gln Val Asn Lys Ile
20 25 30
Asp Ile Tyr Leu Phe Met Arg Ser Leu Ile Leu Phe Met Asn Cys Glu
35 40 45
Ile Asn Gly Ile Thr Arg Gly Tyr Asn Lys Tyr Leu Leu
50 55 60

<210> 33078
<211> 112
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (11),(13),(49),(58),(67),(68),(71)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33078
Ile Lys Arg Ala Ser Leu Arg Trp Thr Ser Xaa Arg Xaa Gly Ser Trp
1 5 10 15
Gly Leu Cys Gly Leu Val Leu Val Ser Arg Pro Leu Phe Pro Asp Thr
20 25 30
Gly Leu Lys Ala Cys Val Leu Thr Cys Gly Leu Leu Arg Val Ile Asp
35 40 45
Xaa Leu Leu Ile Gly Met Gly Gly Leu Xaa Phe Pro Leu Ser Pro Glu
50 55 60
Thr Arg Xaa Xaa Ile Lys Xaa Leu Gly Asn Pro Val Glu Val Leu Asp
65 70 75 80
Thr Arg Asn Ala Ala Ala Gln Phe Asn Leu Leu Ala Thr Glu Arg Gly
85 90 95
Val Ser Glu Ile Ala Ala Ala Met Ile Pro Ile Gly Trp Asn Gly Lys
100 105 110

<210> 33079
<211> 244
<212> PRT
<213> A.fumigatus

<400> 33079
Asn Ile Leu Pro Ser Met Ala Arg Asp Glu Pro Leu Leu Ala Pro Arg
1 5 10 15
Pro Ser Ser Glu Asn Asn Ser Ile Arg Asn Ala Glu Glu Glu Asp Ala
20 25 30
Leu Leu Thr Gly Glu Arg Thr Gly Arg Gly Gln Glu Arg Arg Gly Trp
35 40 45
Thr Phe Trp Arg Glu Val Gly Leu Phe Ser Trp Ala Leu Leu Ala Thr
50 55 60
Ile Ala Val Ile Val Leu Ala Val Val Tyr Gln His Glu Thr Ser Asn
65 70 75 80

```
Pro Asn Gly Gly Ser Arg Pro Pro Trp Gly Pro Gly Gly Lys Pro Thr
                85                  90                  95
Gly Lys Arg Asn Leu Ile Phe Met Val Ser Asp Gly Met Gly Pro Thr
            100                 105                 110
Ser Leu Thr Met Thr Arg Ser Tyr Arg Gln Phe Val Glu Gly Leu Pro
        115                 120                 125
Ile Asp Asp Ile Leu Val Leu Asp Gly His Ile Ile Gly Thr Ser Arg
    130                 135                 140
Thr Arg Ser Ser Ser Ser Leu Val Thr Asp Ser Ala Ala Gly Ala Thr
145                 150                 155                 160
Ala Phe Ser Cys Gly Phe Lys Ser Tyr Asn Gly Ala Ile Ser Val Leu
                165                 170                 175
Pro Asp His Ser Pro Cys Gly Thr Val Leu Glu Ala Ala Ser Leu Ala
            180                 185                 190
Gly Tyr Lys Thr Gly Leu Val Val Thr Thr Arg Ile Thr Asp Ala Thr
        195                 200                 205
Pro Ala Cys Phe Ala Ser His Val Asn Leu Arg Gln Tyr Glu Asp Arg
    210                 215                 220
Ile Ala Gln Gln Glu Ile Gly Glu His Pro Leu Gly Arg Val Val Asp
225                 230                 235                 240
Leu Ile Phe Gly
```

<210> 33080
<211> 110
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (2),(38),(40)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33080

```
Glu Xaa Ser Leu Ser His Glu Val Ile His Lys Ser Thr Arg Thr Pro
1               5                  10                  15
Leu Asn Gln Tyr Arg Gly Lys Val Ala Asp Ser Pro Gly Arg Gly His
            20                  25                  30
Thr Ser Pro Arg Ser Xaa His Xaa Cys Ser Ser Thr Ser Asn Trp Pro
        35                  40                  45
Phe Leu Phe Asn Met Ser Asp Phe Met Pro Ala Leu Thr Phe Gln Gly
    50                  55                  60
Leu Gln Ala Asn Ala Phe Pro Ala Asn Glu Gln His Pro Ile Ser Thr
65                  70                  75                  80
Gly His Leu Asp Pro Thr Ile Gln Val Glu Ser Gly Ile Lys Ala Gly
                85                  90                  95
Ile Asn Ala Trp Trp Ser Ala Gln Glu Cys Tyr Gln Ala His
            100                 105                 110
```

<210> 33081
<211> 133
<212> PRT
<213> A.fumigatus

<400> 33081

```
Thr Pro Leu Pro Trp Trp Pro Phe Gly Tyr Gly Lys Ser Tyr Ser Thr
```

```
1               5                   10                  15
Phe Glu Tyr Gly Pro Val Thr Val Asp Lys Ala Asn Val Thr Ala Ser
            20                  25                  30
Asp Thr Val Thr Val Ser Val Asp Val Thr Asn Thr His Lys Ser Met
        35                  40                  45
Asp Gly Thr Glu Val Val His Val Tyr Ile Gln Asp Glu Ile Ser Ser
    50                  55                  60
Val Val Val Pro Asn Arg Gln Leu Lys Gly Phe Glu Lys Val Val Ile
65                  70                  75                  80
Pro Ala Lys Asn Thr Lys Thr Val Lys Ile Lys Ile Lys Val Gln Asp
                85                  90                  95
Leu Gly Leu Trp Asn Ser Ala Met Lys Tyr Val Val Glu Pro Gly Ala
            100                 105                 110
Phe Thr Ala Leu Val Gly Ser Ser Ser Ala Asp Ile Arg Gly Asn Ala
        115                 120                 125
Thr Phe Tyr Val Gln
    130
```

<210> 33082
<211> 70
<212> PRT
<213> A.fumigatus

<400> 33082

```
Asp Gly Ile Pro Arg Ala Glu Ala Lys Leu Leu Ala Met Glu Glu Val
1               5                   10                  15
Ser Leu Ala Gly Asn Arg Val Leu Pro Thr Asn Leu Gly Gly Gly Gly
            20                  25                  30
Cys Cys Trp Cys Cys Ala Cys Ser Gly Lys Val Gly Asp Ser Leu Val
        35                  40                  45
Val Ser Asp Ser Pro Ala Pro Val Cys Ala Val Ala Ala Asp Leu Val
    50                  55                  60
Leu Thr Gly Phe Ser Cys
65                  70
```

<210> 33083
<211> 536
<212> PRT
<213> A.fumigatus

<400> 33083

```
Ala Leu Arg Thr Leu Gln Leu Leu Glu Gln His His Lys Lys Leu Ala
1               5                   10                  15
Gln Ile Leu Arg Phe Gln His Glu Asn Pro Val Ser Thr Lys Ser Ala
            20                  25                  30
Ala Thr Ala Gln Thr Gly Ala Gly Glu Ser Glu Thr Thr Lys Leu Ser
        35                  40                  45
Pro Thr Leu Pro Glu Gln Ala Gln His Gln Gln Gln Pro Pro Pro Pro
    50                  55                  60
Arg Leu Val Gly Asn Thr Arg Leu Pro Ala Arg Glu Thr Ser Ser Ile
65                  70                  75                  80
Ala Ser Asn Leu Ala Ser Ala Arg Gly Ile Pro Ser Gln Pro Leu Arg
                85                  90                  95
Pro Ser Pro Val Ser Pro Thr Val Ser Ser Gln Gln Ala Gly Ala Arg
            100                 105                 110
Met Thr Gly Gly Pro Ser Lys Leu Lys Thr Gly Glu Ser Arg Leu Arg
```

```
        115                 120                 125
Gly Thr Gln Ala His Asn Leu Arg Asp Arg Pro Ser Gly Val Ser Ala
    130                 135                 140
Ser Lys Gln Pro Trp Ser Pro Pro Val Thr Ser Pro Thr Gly Ile Thr
145                 150                 155                 160
Thr Gln Gln Phe Val Pro Pro Glu Ala Val Glu Ser Ser Arg Gln Lys
                165                 170                 175
Ser Lys Thr Ala Pro Ser Glu Glu Pro Phe Gln Arg Phe Tyr Ser Thr
            180                 185                 190
Phe Glu Gly Leu Ile Ser Lys Ile Ser Ala Pro Leu Ala Phe Ala Gly
        195                 200                 205
Leu Pro Leu Gly Thr Glu Ala Ser Thr Gln Ser Asp Ser Ala Arg Arg
    210                 215                 220
Lys Ser Ser Ala Ala Asp Thr Lys Val Asp Arg His Gln Ala Thr Ser
225                 230                 235                 240
Asp Arg Leu Gly Gln Phe Thr Glu Pro Asp Val Ser Arg Ile Phe Ser
                245                 250                 255
Arg Ala Ala Leu Arg Ala Ile Arg Asp Ser Asn Gly Asn Gly Ala Gly
            260                 265                 270
Asn Thr Ala Glu Ser Phe Tyr Val Val Pro Thr Thr Gly Gly Thr Val
        275                 280                 285
Ser Tyr Ala Gly Ile Leu Thr Arg Ala Glu Lys Glu Ala Arg Arg Asn
    290                 295                 300
Ser Leu Asp Glu Ala Asp Asp Asp Phe Val Asp Ala Arg Glu Thr Pro
305                 310                 315                 320
Ala Ser Pro Glu Leu Arg Gln Ser Leu Thr Gly Ser Arg Gly Arg Ala
                325                 330                 335
Ser Arg Ala Ala Asp Lys Leu Thr Thr Leu His Asn Pro Lys Thr Met
            340                 345                 350
Glu Glu Leu Gln Met Glu Asn Gln Ala Leu Lys His Leu Ser Asp Thr
        355                 360                 365
Leu Ser Lys Arg Leu His Met Trp Glu Val Asn Ala Gln Ser Ser Ser
    370                 375                 380
Met Ala Leu Gln Gln Ser Leu Lys Ala Met His His His Thr Gly Pro
385                 390                 395                 400
Trp Pro Asp His Pro Tyr Gly Ala Gln Gly Ser Ser Ala Ala Val Thr
                405                 410                 415
Pro Ser Ala Ala Met Asp Ser Asp Gln Arg Ile Lys Glu Leu Glu Glu
            420                 425                 430
Arg Met Arg Arg Asn Glu Lys Glu Leu Glu Arg Val Arg Arg Glu Asn
        435                 440                 445
Glu Lys Leu Arg Asp Val Leu Gly Arg Tyr Arg Glu Arg Trp Glu Lys
    450                 455                 460
Leu Lys Glu Gly Ala Lys Thr Arg Arg Ala Glu Gly Arg Ala Ala Ala
465                 470                 475                 480
Gly Pro Ser Ser Thr Ala Gly Thr Val Glu Ser Ser Asp Lys Pro Gly
                485                 490                 495
Ala Thr Pro Asn Pro Asp Ser Asn Pro Gln Glu Gln Ala Glu Ser Ala
            500                 505                 510
Lys Ser Lys Ser Asp Gly Asp Met Glu Asn Glu Ser Thr Gly Pro Glu
        515                 520                 525
Ala Lys Gly Asp Ala Ser Asp Ser
    530                 535
```

<210> 33084
<211> 63

<212> PRT
<213> A.fumigatus

<400> 33084
Cys Leu Arg Leu Ile Pro Asn Ser Phe Thr Leu Trp Arg Ser Ala Tyr
1 5 10 15
Gly Val Thr Ser Ser Glu His Val Ile Ser Ser Ser Ser Ser Ser His
20 25 30
Leu Ala Glu Leu Leu Leu Thr Thr Ala Tyr Arg Thr Ile Ile Thr Tyr
35 40 45
Ser Leu Tyr Pro Cys Ser His Gly Asp Cys Thr Ala His Leu Gly
50 55 60

<210> 33085
<211> 391
<212> PRT
<213> A.fumigatus

<400> 33085
Tyr Gly Ile Arg Ala Gly Ser Gly Gly Asp Gly Gly Gly Gly Gly Gly
1 5 10 15
Gly Gly Gly Gly Gly Val Val Ser Ala Thr Phe Pro Arg Asn Met Glu
20 25 30
Ala Leu Ala Arg Lys Ser Leu Thr Lys Pro Ile Glu Ile Val Val Gly
35 40 45
Gly Lys Ser Val Val Ala Pro Glu Ile Thr Gln Ile Val Glu Val Arg
50 55 60
Asn Glu Asp Thr Lys Cys Gly Arg Leu Val Glu Ile Leu Gly Asn Leu
65 70 75 80
Tyr Ser Asp Asp Ala Asn Glu Glu Gly Arg Gly Gly Met Leu Val Asp
85 90 95
Arg Gln Glu Ala Ala Gly Ala Leu Leu Arg Glu Leu Met Arg Lys Gly
100 105 110
Tyr Pro Cys Met Ser Ile His Gly Gly Lys Asp Gln Ile Asp Arg Asp
115 120 125
Ser Thr Ile Glu Asp Phe Lys Ala Gly Ile Phe Pro Val Leu Ile Ala
130 135 140
Thr Ser Val Ala Ala Arg Gly Leu Asp Val Lys Gln Leu Lys Leu Val
145 150 155 160
Val Asn Tyr Asp Ala Pro Asn His Leu Glu Asp Tyr Val His Arg Ala
165 170 175
Gly Arg Thr Ala Arg Ala Gly Asn Thr Gly Thr Ala Val Thr Phe Leu
180 185 190
Thr Glu Glu Gln Glu Arg Tyr Ser Val Asp Ile Ala Lys Ala Leu Arg
195 200 205
Gln Ser Gly Gln Lys Val Pro Glu Pro Val Gln Lys Met Val Asp Ser
210 215 220
Phe Leu Glu Lys Val Lys Ala Gly Lys Glu Lys Ala Ser Ala Ser Gly
225 230 235 240
Phe Gly Gly Lys Gly Leu Glu Arg Leu Asp Gln Glu Arg Asp Ala Ala
245 250 255
Arg Met Arg Glu Arg Arg Thr Tyr Lys Thr Gly Glu Glu Gly Glu Asp
260 265 270
Glu Glu Asp Lys Glu Asp Lys Ala Glu Lys Ala Asp Glu Arg Phe Ser
275 280 285
Lys Ile Val Ser Ser Val Gln Ser Ala Ala Ala Ala Ala Thr Thr Pro

```
    290                 295                 300
Leu Pro Gly Val Pro Lys Gly Ile Asp Leu Asp Gly Lys Ile Thr Val
305                 310                 315                 320
His Arg Thr Glu Lys Asp Pro Ala Gly Ala Ser Lys Asn Pro Leu Asp
                325                 330                 335
Lys Val Gly Ser Ala Val Ala Asp Ile His Ala Arg Leu Ser Arg Ala
            340                 345                 350
Gly Val Met Arg Ser Gly Val Pro Ile Asp Asn Arg Gly Pro Asp Ala
        355                 360                 365
Gly Ala Phe His Ala Thr Leu Glu Ile Asn Asp Phe Pro Arg Lys Leu
    370                 375                 380
Phe Pro Val Met Val Arg Tyr
385                 390
```

<210> 33086
<211> 340
<212> PRT
<213> A.fumigatus

<400> 33086

```
Arg Pro Glu Ser Glu Lys Met Glu Val Asp Ala Ala Glu Glu Glu Val
1               5                   10                  15
Asp Pro Leu Asp Ala Phe Met Ser Glu Leu Ala Glu Thr Ala Pro Pro
            20                  25                  30
Lys Lys Thr Thr Gly Ala Arg Phe Thr Lys Ala Lys Asp Gln Gln Pro
        35                  40                  45
Glu Ala Met Phe Gly Asp Glu His Asp Val Asp Leu Thr Ala Val Gly
    50                  55                  60
Glu Gly Asp Ala Asp Asp Phe Leu Ala Ile Ala Asn Lys Ala Lys Lys
65                  70                  75                  80
Lys Lys Asp Ile Pro Thr Val Asp His Glu Lys Met Glu Tyr Glu Pro
                85                  90                  95
Phe Arg Lys Lys Phe Tyr Thr Glu Pro Ser Asn Leu Ala Glu Met Thr
            100                 105                 110
Asp Glu Glu Ala Ala Ser Leu Arg Leu Glu Leu Asp Gly Ile Lys Val
        115                 120                 125
Arg Gly Val Asp Val Pro Lys Pro Val Met Lys Trp Ser Gln Cys Gly
    130                 135                 140
Leu Gly Val Gln Thr Leu Asp Val Ile Gln Lys Leu Gly Tyr Glu Asn
145                 150                 155                 160
Pro Thr Ser Ile Gln Ser Gln Ala Ile Pro Ala Ile Met Ser Gly Arg
                165                 170                 175
Asp Val Ile Gly Val Ala Lys Thr Gly Ser Gly Lys Thr Ile Ala Phe
            180                 185                 190
Leu Ile Pro Met Phe Arg His Ile Arg Asp Gln Arg Pro Leu Glu Asn
        195                 200                 205
Met Glu Gly Pro Ile Gly Leu Ile Met Thr Pro Thr Arg Glu Leu Ala
    210                 215                 220
Thr Gln Ile His Lys Asp Cys Lys Pro Phe Leu Lys Ala Leu Asn Leu
225                 230                 235                 240
Arg Ala Val Cys Ala Tyr Gly Gly Ala Pro Ile Lys Asp Gln Ile Ala
                245                 250                 255
Glu Leu Lys Arg Gly Ala Glu Ile Val Val Cys Thr Pro Gly Arg Met
            260                 265                 270
Ile Asp Leu Leu Ala Ala Asn Ala Gly Arg Val Thr Asn Leu Arg Arg
        275                 280                 285
```

```
Val Thr Tyr Val Val Leu Asp Glu Ala Asp Arg Met Phe Asp Met Gly
    290                 295                 300
Phe Gly Arg Gly Val Val Glu Met Val Ala Gly Gly Gly Gly Gly Gly
305                 310                 315                 320
Glu Ala Val Trp Cys Arg Pro Pro Ser Leu Gly Thr Trp Arg Leu Trp
                325                 330                 335
Leu Val Ser Arg
            340
```

<210> 33087
<211> 132
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (85),(87),(90),(95),(102),(104),(111)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33087

```
Ala Phe Cys Ala Ala Ser Phe Asp Pro Asn Leu Pro Phe Trp Ala Phe
1               5                   10                  15
Ala Ala Asp Ser Ala Arg Phe Trp His Ser Pro Val Ser Gln Arg Pro
            20                  25                  30
His Thr Arg Ala Ala Pro Leu Arg Ser Thr Val Ser Leu Thr Cys Ala
        35                  40                  45
Ala Ile Ala Ala Phe Val Arg Ala Ser Ala Leu Ser Ala Pro Gly Thr
    50                  55                  60
Ser Gly Ala Ala Ser Pro Ser Asp Leu Pro Gly Asp Leu Asn Gly Ala
65                  70                  75                  80
Phe Asp Phe Ala Xaa Ser Xaa Ala Arg Xaa Ala Ala Phe Gly Xaa Gly
                85                  90                  95
Leu Ala Ala Glu Pro Xaa Thr Xaa Ala Gly Arg Glu Lys Gly Xaa Ala
            100                 105                 110
Ser Phe Leu Glu Val Glu Gln Lys Ile Thr His Leu Phe Gly Leu Gly
        115                 120                 125
Val Ile Ala Leu
    130
```

<210> 33088
<211> 252
<212> PRT
<213> A.fumigatus

<400> 33088

```
Cys Phe Lys His Ala Glu Thr Ile Asp Ile Val Ile Met Thr Leu Gly
1               5                   10                  15
Tyr Leu Ser Met His Leu Ser Phe Val Ser Leu Phe Phe Ser Met Arg
            20                  25                  30
Arg Leu Gly Ser Asn Phe Trp Leu Ala Ala Thr Val Leu Phe Ser Gly
        35                  40                  45
Val Phe Ala Phe Leu Phe Gly Leu Leu Val Thr Thr Glu Leu Gly Val
    50                  55                  60
Pro Ile Asn Val Leu Leu Leu Ser Glu Gly Leu Pro Phe Leu Val Val
65                  70                  75                  80
Thr Ile Gly Phe Glu Lys Pro Ile Ile Leu Thr Arg Ala Val Leu Thr
```

```
                85                  90                  95
Ala Ala Ala Asp Asn Arg Gly Arg Ala Gly Gln Ala Ser Ser Ser Thr
            100                 105                 110
Thr Lys Ser Ile Gln Asp Ser Ile Gln Thr Ala Ile Lys Glu Gln Gly
        115                 120                 125
Phe Glu Ile Ile Arg Asp Tyr Cys Ile Glu Ile Ala Ile Leu Ile Ala
    130                 135                 140
Gly Ala Ala Ser Gly Val Gln Gly Gly Leu Arg Gln Phe Cys Phe Leu
145                 150                 155                 160
Ala Ala Trp Ile Leu Phe Phe Asp Cys Val Leu Leu Phe Thr Phe Tyr
                165                 170                 175
Thr Thr Ile Leu Cys Ile Lys Leu Glu Ile Asn Arg Ile Lys Arg His
            180                 185                 190
Ile Thr Leu Arg Lys Ala Leu Glu Glu Asp Gly Ile Thr His Arg Val
        195                 200                 205
Ala Glu Asn Val Ala Ser Ser Asn Asp Trp Pro Leu Thr Glu Ser Glu
    210                 215                 220
Ser Ser Asn Lys Thr Ser Ile Phe Gly Arg Lys Leu Arg Ser Ser Ser
225                 230                 235                 240
Val Arg Arg Phe Lys Ile Leu Met Val Gly Gly Phe
                245                 250
```

<210> 33089
<211> 159
<212> PRT
<213> A.fumigatus

<400> 33089

```
Asn Ser Cys Thr Leu Thr Phe Tyr Trp Pro Gln Gly Val Asn His Leu
1                   5                   10                  15
Ala Leu Thr Thr Phe Ile Phe Ser Asp Ser Leu Ser Lys Ser Ser Ser
            20                  25                  30
Ile Ala Pro Ala Ala Thr Glu Leu Pro Ile Pro Ser Asn Ala Ser Ala
        35                  40                  45
Gln Pro Val Pro Phe Thr Pro Asn Leu Phe Ser Pro Phe Ser His Asp
    50                  55                  60
Ser Ser Leu Ala Phe Thr Leu Pro Phe Asp Gln Val Pro Gln Phe Leu
65                  70                  75                  80
Lys Ala Val Gln Glu Ile Pro Asp Thr Ser Ser Asp Glu Asp Asp Gly
                85                  90                  95
Glu Gln Lys Lys Trp Ile Met Arg Ala Ala Arg Gly Pro Ala Tyr Gly
            100                 105                 110
Ser Gly Gly Ala Ile Lys Leu Trp Leu Ala Asp Ala Trp Gly Ser Phe
        115                 120                 125
Val Asp Leu Ile Lys Val Asn Val Phe Ala Leu Arg Tyr Ala Thr Ile
    130                 135                 140
Phe Ala Asp Val Leu Ser Thr Arg Lys Leu Leu Ile Leu Ser Ser
145                 150                 155
```

<210> 33090
<211> 75
<212> PRT
<213> A.fumigatus

<400> 33090

```
Thr Val Leu His Leu Pro Phe Pro Arg Cys Thr Leu Thr Gln Pro Lys
```

```
1               5                   10                  15
Ile Pro Ala Ala Leu Lys Gln Ser Ile Asp Val His Leu Thr Ser Asn
            20                  25                  30
Ile Pro Gly Val Pro Asp Ala Val Glu Gln Thr Pro Phe Lys Glu Thr
        35                  40                  45
Asp Val Arg Arg Thr Gly Glu Gln Cys Asn Asn His Asn Gly Val Tyr
    50                  55                  60
Arg Val Leu Thr Ser Val Thr Arg Asp Gly Leu
65                  70                  75
```

<210> 33091
<211> 115
<212> PRT
<213> A.fumigatus

<400> 33091

```
Arg Ser Leu Thr Ser Ser Ala Pro Val Val Arg Cys Arg Ser Glu Asn
1               5                   10                  15
Ser Pro Gly Lys Asn Asp Trp Leu Leu Glu Thr Asp Ser Asp Asn Lys
            20                  25                  30
Glu Trp Lys Ala Leu Gly Gln Gln Lys Asp Ile Asp Arg Asp Ala Lys
        35                  40                  45
Leu Arg Cys Asp Gln Lys Thr Lys Gln Lys Cys Lys Asn Ala Arg Glu
    50                  55                  60
Glu Asp Cys Gly Ser Gln Pro Glu Val Arg Ala Glu Thr Pro His Arg
65                  70                  75                  80
Glu Glu Glu Gly His Glu Ala Lys Val His Arg Lys Val Ser Gln Gly
                85                  90                  95
His Asp Asp Asn Ile Asn Ser Phe Arg Val Leu Lys Thr Ser Ala Asn
            100                 105                 110
Met Val Ala
        115
```

<210> 33092
<211> 162
<212> PRT
<213> A.fumigatus

<400> 33092

```
Ala Cys Leu Gly Ala Ile Gly Leu Thr Cys Met Cys Cys Gln Arg Ala
1               5                   10                  15
Leu Asn Val Tyr Thr Thr Asp Thr Ser Leu Glu Ser Leu Ala Ser Arg
            20                  25                  30
Trp Tyr Val Cys Trp Asn Asp Ile Val Glu Val Leu Pro Leu Phe Asn
        35                  40                  45
Met Asn Ile Leu Thr Val Pro Ala Tyr Gly Lys Ile Ala Asn Asn Glu
    50                  55                  60
Val Val Lys Ile Glu Cys Leu Asp Trp Thr Gly Gly Gln Ile Lys Asn
65                  70                  75                  80
Asn Asp Ser Ala Asp Asp Ile Lys Asn Val Asp Leu Thr Gln Ile His
                85                  90                  95
Tyr Leu Ser Gly Pro Phe Glu Ile Glu Thr Ala Glu Pro Gly Asp Val
            100                 105                 110
Leu Leu Val Glu Ile Gln Asp Val Gln Pro Phe Glu Asp Gln Pro Trp
        115                 120                 125
Gly Phe Thr Gly Ile Phe Ser Arg His Asn Gly Gly Gly Phe Leu Asp
```

```
    130                 135                 140
Glu Ile Tyr Pro Glu Pro Cys Ala Cys Leu Leu Pro Thr Leu His His
145                 150                 155                 160
Cys Thr
```

<210> 33093
<211> 110
<212> PRT
<213> A.fumigatus

<400> 33093

```
Leu Thr Ser Leu Pro Tyr Ser Ala Lys Ala Ile Trp Asp Phe Glu Gly
1               5                   10                  15
Ile Phe Cys Ser Ser Arg His Ile Pro His Val Arg Phe Ala Gly Leu
            20                  25                  30
Ile His Pro Gly Ile Leu Gly Cys Ala Pro Ser Ala Glu Val Leu Ala
        35                  40                  45
Glu Trp Asn Arg Arg Glu Gly Glu Leu Ile Ala Thr Asn Thr Arg Gly
    50                  55                  60
Arg Asp Val Ala Lys Pro Pro Glu Pro Lys Asn Val His Ala Gly Ser
65                  70                  75                  80
Ala Asp Glu Asp Leu Lys Ala Lys Ile Gly Arg Glu Gly Ala Arg Thr
                85                  90                  95
Ile Pro Val Arg Ile His Leu Thr Pro Ser Ile Pro Trp Thr
            100                 105                 110
```

<210> 33094
<211> 64
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (43)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33094

```
Gly Arg Pro Glu His Gly Gly Asn Cys Asp Ile Lys Asn Leu Ser Arg
1               5                   10                  15
Gly Ser Lys Val Tyr Leu Pro Val His Val Pro Gly Ala Lys Phe Ser
            20                  25                  30
Val Gly Asp Leu His Phe Ser Gln Gly Asp Xaa Glu Ile Ser Phe Cys
        35                  40                  45
Gly Ala Ile Glu Met Ala Gly Val Ile Thr Leu Lys Phe Thr Val Ile
    50                  55                  60
```

<210> 33095
<211> 122
<212> PRT
<213> A.fumigatus

<400> 33095

```
Leu Glu Pro Tyr Phe Cys Arg Ile His Phe Thr Pro Glu Gln Lys Arg
1               5                   10                  15
Arg Trp Phe Met Asp Arg Gln Gly Val Leu Phe Gly Phe Ala Phe Ala
```

```
            20                  25                  30
Phe Thr Val Val Leu Lys Ala Pro Tyr Ile Gly Val Leu Met Tyr Gly
        35                  40                  45
Val Ala Gln Ala Ser Thr Ala Tyr Leu Ile Thr Lys Cys Thr Asp Pro
    50                  55                  60
Pro Pro Ser Pro Ala Glu Ser Glu Gly Phe Ala Glu Ser Gln Val Thr
65                  70                  75                  80
Trp Lys Asn Lys His Asp Phe Leu Arg Leu Ser Leu Asp Asn Leu Asp
                85                  90                  95
Lys Leu Asn Leu Pro Leu Gln Ser Glu Gly Glu Val Gln Glu Thr Lys
            100                 105                 110
Val Pro Gln Ser Pro Gly Arg Lys Phe Ser
        115                 120
```

<210> 33096
<211> 61
<212> PRT
<213> A.fumigatus

<400> 33096

```
Ser Gln Ser Phe Tyr Ile Leu Ile Lys Ser Ile Met Leu Gln Asn Gln
1               5                   10                  15
Ala Leu Asn Phe Cys Ala Tyr Arg Val Asp Tyr Pro Leu Ser Ile Arg
            20                  25                  30
Gly Pro Ser Lys Ile Trp Ser Gln Asp Ala Ser Ser Thr His Pro Phe
        35                  40                  45
Asn Ala Ser His Gln Leu Phe Cys Ser Val Leu Leu Ala
    50                  55                  60
```

<210> 33097
<211> 139
<212> PRT
<213> A.fumigatus

<400> 33097

```
Val Phe Ala Val Pro Pro Arg Ser Gly Val Arg Thr Pro Ala Ala His
1               5                   10                  15
Thr Leu Ser Thr His Pro Ile Asn Cys Phe Ala Ala Ser Phe Ser Pro
            20                  25                  30
Ser Gln Glu Ser Ile Ser Ala Ala Asp Gln Asn Val Ala Thr Gly Leu
        35                  40                  45
Ala Thr Pro Leu Pro Val Met Ser Lys Ala Leu Pro Cys Thr Gly Ser
    50                  55                  60
Asn Lys Asp Gly Phe Phe Leu Val Gly Ser Arg Leu Leu Glu Gly Ala
65                  70                  75                  80
Thr Pro Ile Asp Pro Ala Ser Ala Ala Ala Lys Ser Asp Arg Ile Ser
                85                  90                  95
Met Cys Lys Leu Val Pro Thr Ile Val Ser Arg Glu Ser Gly Leu Pro
            100                 105                 110
Thr Met Arg Ile Val Met Ala Ser Thr Ser Ile Leu Ser Gln Val Thr
        115                 120                 125
Ser Gly Asn Ser Leu Ala Thr Ser Ala Ala Thr
    130                 135
```

<210> 33098
<211> 100

<212> PRT
<213> A.fumigatus

<400> 33098
Lys Gln Met Ala Ser Thr Val Pro Ile Thr Tyr Arg Val Ala Ser Ile
1 5 10 15
Pro Gly Asp Gly Ile Gly Pro Glu Val Val Glu Ala Thr Ile Gln Val
20 25 30
Val Arg Lys Leu Cys Gln Lys Phe Gln Thr Phe Asp Ile Asp Phe Thr
35 40 45
His Ile Pro Trp Gly Thr Glu Tyr Tyr Lys Ala His Gly Arg Tyr Ala
50 55 60
Ser Glu Asp Cys Leu Asp Thr Leu Arg Gln Phe Asp Ala Val Leu Phe
65 70 75 80
Gly Ala Val Gly Ala Pro Gly Lys Ile Val Leu Ser Asp Arg Leu Gly
85 90 95
Pro Thr Ser Asn
100

<210> 33099
<211> 296
<212> PRT
<213> A.fumigatus

<400> 33099
Asp Cys Pro Glu Arg Ser Thr Arg Ala Asn Gln Gln Leu Thr Trp Leu
1 5 10 15
Asp Val Pro Asp His Ile Ser Leu Trp Gly Leu Leu Leu Ala Ile Arg
20 25 30
Arg Pro Leu Gln Leu Tyr Ala Asn Val Arg Pro Val Arg Thr Phe Pro
35 40 45
Gly Thr Lys Cys Pro Leu Asn Thr Ala Thr Lys Gly Ile Asp Trp Val
50 55 60
Leu Val Arg Glu Asn Ser Glu Gly Glu Tyr Ser Gly Gln Gly Gly Arg
65 70 75 80
Ser His Val Gly Gln Pro Trp Glu Ala Ala Thr Glu Val Ala Ile Phe
85 90 95
Thr Arg Val Gly Ile Glu Arg Ile Met Arg Phe Ala Phe Glu Thr Ala
100 105 110
Arg Ser Arg Pro Arg Arg His Leu Thr Val Val Thr Lys Ser Asn Ser
115 120 125
Met Arg Asn Gly Met Val Leu Trp Asp Gln Val Ala Ala Glu Val Ala
130 135 140
Arg Glu Phe Pro Asp Val Thr Trp Asp Lys Met Leu Val Asp Ala Met
145 150 155 160
Thr Ile Arg Met Val Gly Lys Pro Asp Ser Leu Asp Thr Ile Val Gly
165 170 175
Thr Asn Leu His Met Asp Ile Leu Ser Asp Leu Ala Ala Ala Leu Ala
180 185 190
Gly Ser Ile Gly Val Ala Pro Ser Ser Asn Leu Asp Pro Thr Arg Lys
195 200 205
Asn Pro Ser Leu Phe Glu Pro Val His Gly Ser Ala Phe Asp Ile Thr
210 215 220
Gly Lys Gly Val Ala Asn Pro Val Ala Thr Phe Trp Ser Ala Ala Glu
225 230 235 240
Met Leu Ser Trp Leu Gly Glu Lys Asp Ala Ala Lys Gln Leu Met Gly

```
                245                 250                 255
Cys Val Glu Arg Val Cys Ala Ala Gly Val Leu Thr Pro Asp Leu Gly
            260                 265                 270
Gly Thr Ala Asn Thr Gln Gly Val Val Asp Ala Val Cys Ala Glu Ile
        275                 280                 285
Glu Arg Leu Val Leu Gln His Asp
    290                 295
```

<210> 33100
<211> 249
<212> PRT
<213> A.fumigatus

<400> 33100

```
Asp Ile Arg Val Ala Cys Met Ala Phe Thr Lys Pro Ile Phe Pro Phe
1               5                   10                  15
Val Arg Tyr Ala Arg Pro Ser Gly Leu Thr Leu Ile Pro Pro Ser Lys
            20                  25                  30
Asp His Ala Arg Thr Ala Ser Arg Leu Ile Gln Leu Phe Glu Ile Pro
        35                  40                  45
Gly Val Phe Gly Glu Pro Met Ser Lys Ala Ile Tyr Asp Leu Thr Glu
    50                  55                  60
Leu Ile Trp Tyr Ala Glu Trp Ile Lys Gly Asp Pro Lys Ser Ser Gln
65                  70                  75                  80
Ser Phe Asp Asp Glu Thr Glu Asp Tyr Phe Asn Thr Glu Val Leu Tyr
                85                  90                  95
Val Glu Tyr Ala Leu His Thr Asp Arg Tyr Thr Pro Thr Gly Glu Thr
            100                 105                 110
Lys Gly Asp Ala Thr Ile Glu Gly Cys Val Arg Leu Ala Cys Leu Leu
        115                 120                 125
Phe His Asn Ser Thr Ile Trp Glu Phe Tyr Pro Ala Met Gly Pro Val
    130                 135                 140
Phe Ser Lys Pro Ile Val Gly Leu Arg Val Ala Leu Glu Thr Thr Ile
145                 150                 155                 160
Pro Ala Gly Tyr Phe Asn Leu Cys Arg Glu Leu Leu Ile Trp Val Leu
                165                 170                 175
Phe Val Gly Ala Cys Ser Ser Arg Leu Leu Ala Arg Glu His Thr Phe
            180                 185                 190
Phe Met Thr Glu Leu Thr Met Ala Val Arg Asn Gln Gly Phe His Ser
        195                 200                 205
Trp Gln Asp Leu Arg Glu Leu Leu Leu Gly Tyr Phe Tyr Val Asp Arg
    210                 215                 220
Cys Tyr Leu Thr Ser Leu Arg Glu Leu Trp Asp Glu Ile His Ile Asp
225                 230                 235                 240
Ala Asp Ala Ser Arg Leu Asn Leu Cys
                245
```

<210> 33101
<211> 150
<212> PRT
<213> A.fumigatus

<400> 33101

```
Ala Ala Ser Thr Trp Val Leu Ala Thr Ser Leu Leu Pro Thr Leu Leu
1               5                   10                  15
Leu Leu Leu Leu Ser Val Met Val Val Leu Phe Ser Cys Leu Leu Ala
```

```
            20                  25                  30
Cys Gly Arg Cys Phe Leu Ser Ser Leu Glu Leu Glu Leu His Asp Arg
        35                  40                  45
Ile Leu Leu Ser Arg Pro Leu Thr Gln Phe Arg Glu Met Ala Ile Gly
    50                  55                  60
Asn Thr Phe Gly Ala Thr Ala Leu Ser Ser Tyr Gly Gly Phe Trp Ile
65                  70                  75                  80
Ser Phe Ala Ile Val Leu Thr Pro Gly Gly Phe Asn Ile Glu Ser Ala
                85                  90                  95
Leu Val Lys Ala Asp Asn Gly Ser Thr Ser Met Phe Asp Asn Ser Phe
            100                 105                 110
Gly Leu Phe Leu Met Val Arg Ser Ser Ala Arg Val Leu Ser Ser Cys
        115                 120                 125
Gln Arg Pro Gln Leu Thr Thr His Arg Ala Gly Ser Ser Ser Pro Pro
    130                 135                 140
Ser Cys Cys Ser Ala Pro
145                 150
```

<210> 33102
<211> 75
<212> PRT
<213> A.fumigatus

<400> 33102

```
Ser Ser Arg Ala His Gln Arg Ser Thr Phe Asp Gly Leu Ala Gln Gln
1               5                   10                  15
Arg His Asp Ser Lys Lys Asn Asn Thr Gln Lys Asn Lys Asn Lys Thr
            20                  25                  30
Gly Ala Arg Ala Glu Thr Gly His His Thr Leu Tyr Val Ile Tyr Leu
        35                  40                  45
Glu Ala Phe Phe Phe Phe Val Phe Ser Ser Ser Leu Ala Ala Gly Val
    50                  55                  60
Val Thr Arg Cys Gly Ser Ala Ala Val Val Arg
65                  70                  75
```

<210> 33103
<211> 138
<212> PRT
<213> A.fumigatus

<400> 33103

```
Ser Thr Met Ser Thr Glu Gln Asn Ala Ala Leu Glu Lys Asp Val Gly
1               5                   10                  15
Pro Asp Asn Ser Ile Asn Gly Thr Pro Glu Asn Thr Asn Ala Pro Gln
            20                  25                  30
Leu Thr Ser Gln Met Thr His Glu Glu His Glu Val Ala Lys Ala Ala
        35                  40                  45
Ala Arg Phe Gly Tyr Gly Pro Leu Ala Lys Pro Asn Pro Asn Glu Tyr
    50                  55                  60
Asn Leu Pro Pro Phe Gly Gly Glu Phe Gln Pro Gly Leu Tyr Lys Ser
65                  70                  75                  80
Val Glu Lys Arg Lys Phe Ala Asn Pro Ala Pro Leu Gly Leu Cys Ala
                85                  90                  95
Phe Ala Leu Thr Thr Phe Val Leu Ser Cys Ile Asn Met Gly Ala Arg
            100                 105                 110
Asp Ile Thr Ala Pro Asn Ile Val Val Ala Leu Ala Phe Gly Tyr Gly
```

```
        115                 120                 125
Gly Leu Val Gln Leu Leu Ala Gly Met Trp
    130                 135

<210> 33104
<211> 135
<212> PRT
<213> A.fumigatus

<400> 33104
Gln Leu Phe Arg Pro Val Pro Asp Gly Glu Ile Phe Cys Ser Gly Phe
1               5                   10                  15
Val Leu Leu Ser Ala Thr Thr Ala Asn Asn Pro Gln Gly Trp Phe Ile
            20                  25                  30
Phe Thr Thr Ile Leu Leu Phe Cys Thr Leu Arg Ser Thr Val Ala Phe
        35                  40                  45
Phe Leu Leu Phe Phe Phe Leu Asp Leu Ala Phe Leu Leu Leu Gly Ile
    50                  55                  60
Gly Tyr Ile Gln Arg Asp Ser Ala Gly Lys Pro Asn Pro Pro Val Ile
65                  70                  75                  80
Lys Ala Gly Gly Phe Phe Gly Leu Leu Ala Ala Phe Thr Ala Trp Tyr
                85                  90                  95
Asn Ala Leu Ala Gly Ile Ala Asp Ser Ser Asn Ser Phe Phe Val Ile
            100                 105                 110
Pro Val Ala His Phe Pro Trp Ser Pro Thr Gly Gln Ala Arg Arg Thr
        115                 120                 125
Lys Thr Glu Arg Glu Thr Val
    130                 135

<210> 33105
<211> 119
<212> PRT
<213> A.fumigatus

<400> 33105
Phe Val Asp Ser Leu Ile Leu Met Arg Val Leu Arg Asn Glu Ala His
1               5                   10                  15
Arg Arg Ile Ser Trp Leu Ile Ala Glu Lys Ser Phe Lys Arg Lys Phe
            20                  25                  30
Ile Gly Leu Leu Ala Arg Gly Ile Gly Thr Val Pro Val Ala Arg Ala
        35                  40                  45
Met Asp Asn Val Lys Pro Gly Val Gly Thr Ile Tyr Leu Pro Asp Pro
    50                  55                  60
Val Asn Gln Pro Thr Leu Leu Arg Gly Val Gly Thr Asn Phe Glu Gly
65                  70                  75                  80
Pro Glu Phe Glu Lys Glu Gly Thr Ile Ser Leu Pro Thr Ile Asn Gly
                85                  90                  95
Thr Ser His Ser Ala Ala Ile Ala Glu Ser Leu His His Gly Ala Gly
            100                 105                 110
Arg Ser Arg Ala Ser Arg Thr
        115

<210> 33106
<211> 66
<212> PRT
<213> A.fumigatus
```

<400> 33106
Arg Leu Leu Arg Glu Leu Ser Cys Cys Thr His Gln Gly Glu Tyr Arg
1 5 10 15
Cys Lys Pro Phe Glu Gly His Ile Ile Asn Thr Asn Leu Ser Leu His
20 25 30
Leu Glu Ala Ser His Leu Ser Pro Ile Asn Thr Tyr Ser Ser Ala Leu
35 40 45
His Ser Ile Lys Leu Met Arg Cys Phe Leu Pro Ser Leu Ser Ser Lys
50 55 60
Ser Ala
65

<210> 33107
<211> 111
<212> PRT
<213> A.fumigatus

<400> 33107
Ala Ile Ala Ala Ala Arg Arg Lys Glu Gly Arg Leu Ala Gln Gly His
1 5 10 15
Phe Glu Leu Leu Tyr Asp Ile Met Gly Lys Lys Gln Pro Tyr Ile Pro
20 25 30
Pro Leu Ile Gly Trp Leu Tyr Asp Leu Val Leu Trp Ser Phe Ser Val
35 40 45
Leu Ile Asp Leu Phe Phe Arg Glu Val His Pro Arg Gly Ser Trp Lys
50 55 60
Ile Pro Arg Arg Gly Pro Leu Ile Leu Val Ala Ala Pro His Ala Asn
65 70 75 80
Gln Val Gly Phe Cys Ser Ser Phe His Thr Tyr Ile Phe Asp Phe Gly
85 90 95
Cys Ser Ala Cys Phe Met Leu Leu Leu Val Ile Ser Ser Gly Arg
100 105 110

<210> 33108
<211> 272
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (58)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33108
Ser Ser Ser Leu Ile Cys Leu Ser Gln Ile His Phe Gly Glu Gly Lys
1 5 10 15
Ser Asn Thr His Asn Arg Val Ile Ala Thr Asn Pro Pro Pro Asn Leu
20 25 30
Ala Gln Gln Leu Ala Lys Pro Thr Arg Ser Gly Gln Arg Leu Pro Gln
35 40 45
Asn Ser Ile Arg Gln Leu Gln Glu His Xaa Tyr Ala Val Thr Val Met
50 55 60
Val Val Asn Ile Leu Tyr Glu Asn Pro Asn Leu Leu Pro Val Lys Gly
65 70 75 80
Phe Gly Tyr Leu Ile Pro Gln Ser Val Pro Phe Glu His Asn Pro Glu

```
                85                  90                  95
Met Ala Leu Gly Val Ile Phe Gly Ser Glu Ser Ser Val Gly Gln Asp
            100                 105                 110
Thr Val Pro Cys Thr Lys Leu Thr Val Met Leu Gly Gly His Tyr Trp
        115                 120                 125
Asp Gly Trp Lys Thr Ser Asp Tyr Pro Asp Pro Asp Thr Ala Ile Gly
    130                 135                 140
Met Cys Gln Thr Leu Leu His Arg His Leu Gly Ile Thr Glu Lys Pro
145                 150                 155                 160
Leu Gln Ala Ala Val Lys Leu Gln Arg Gln Ala Ile Pro Gln Tyr Thr
                165                 170                 175
Val Gly His Leu Ser Arg Met Arg Asp Leu Ser Gln Thr Val Arg Gln
            180                 185                 190
Asp Phe Asn Asn Arg Leu Thr Leu Ala Gly Asn Trp Tyr Asn Gly Val
        195                 200                 205
Gly Val Thr Asp Cys Val Arg Gln Ala Tyr Met Ala Ala Ser Tyr Gly
    210                 215                 220
Val Gly Ala Leu Lys Leu Asp Ala Pro Ser Val Asn Val Pro Trp Ile
225                 230                 235                 240
Arg Tyr Asn Trp Gln Gly Trp Glu Leu Glu Gly Gly Ile Pro Thr Ser
                245                 250                 255
Pro Val Arg Ile Thr Glu Thr Tyr Arg Ser Glu Arg Asn Tyr Phe Phe
            260                 265                 270
```

<210> 33109
<211> 247
<212> PRT
<213> A.fumigatus

<400> 33109

```
Pro Leu Val Asp Phe Ile Leu Gln Leu Val Glu Leu Glu Leu Leu Glu
1               5                   10                  15
Asp Val Leu Ile Thr Thr Lys Ser Ser Pro Ala Ala Gln Asn Arg Tyr
            20                  25                  30
Ile Tyr Tyr Pro Asp His Leu Val Arg Met Pro Gly Arg Asp Pro Gly
        35                  40                  45
Arg Ser Leu Phe Ser Glu Leu Tyr Ser Asn Phe Arg Thr Leu Leu Thr
    50                  55                  60
Glu Pro Val Phe Asp Lys Leu Val Arg Ser Val Val Thr Glu Pro Ala
65                  70                  75                  80
Arg Leu Pro Pro Gly Pro Lys Ser Val Asp Ser Asp Glu Ser Val Arg
                85                  90                  95
Asp Phe Ile Ser Arg Arg Leu Ala Pro Glu Ile Ala Asp Asn Ile Val
            100                 105                 110
Ser Ala Val Tyr His Gly Ile Tyr Ala Gly Asp Ile Asp Arg Leu Ser
        115                 120                 125
Ala Gln Thr Leu Leu Gly Thr Tyr Arg Asp Leu Glu His Asp Asp Arg
    130                 135                 140
Arg Val Ile Gly Gly Leu Val His Ala Ala Thr Ser Asp Ile Thr Tyr
145                 150                 155                 160
Asn Leu Met Asp Asp Trp Leu Ala Leu His Ser Leu Ala Ala Thr Lys
                165                 170                 175
Gln Lys Ser Tyr Trp Ser Ser Leu Lys Thr Leu Val Arg Asp Ala Ser
            180                 185                 190
Val Ile Thr Phe Lys Asn Gly Val Gln Gln Leu Thr Asp Ala Leu Ala
        195                 200                 205
```

```
Ala Thr Leu Arg Lys Ser Arg Lys Val Asp Leu Leu Thr Gly Thr Glu
    210                 215                 220
Val Met Val Ile Ser Thr Asn Pro Ala Asn Ser Asp Leu Thr Val Ser
225                 230                 235                 240
Val Thr Phe Leu Arg Glu Arg
                245
```

<210> 33110
<211> 224
<212> PRT
<213> A.fumigatus

<400> 33110

```
Met Ala Ser Thr Asn Ser Gly Ile Thr Thr Asp Ala Leu Thr Gly Glu
1               5                   10                  15
Arg Tyr Ile Pro Ser Ser Val Arg Pro Asp Gly Ser Lys Arg Arg Glu
            20                  25                  30
Ile Lys Val Arg Pro Gly Tyr Arg Pro Pro Glu Asp Val Glu Leu Tyr
        35                  40                  45
Lys Asn Arg Ala Ala Ala Ala Trp Arg Asn Arg Gly Ser Gly Gly Val
    50                  55                  60
Pro Gly Ala Glu Gly Leu Ser Glu Ala Ser Glu Asn Lys Ala Asn Thr
65                  70                  75                  80
Ala Ala Ser Asn Lys Asn Ala Lys Arg Arg Glu Ala Lys Lys Arg Ala
                85                  90                  95
Lys Ala Ala Gln Glu Ser Glu Pro Thr Leu Thr Ser Thr Gln Ala Asn
            100                 105                 110
Gly Gln Ser Val Arg Asp Leu Glu Asn Trp Arg Ser Gly Ala Ser Ala
        115                 120                 125
Ala Glu Lys Lys Val Ser Thr Ala Glu Ala Gln Pro Lys Val Asp Pro
    130                 135                 140
Glu Ala Glu Lys Glu Lys Lys Ala Arg Asn Leu Lys Lys Lys Leu Arg
145                 150                 155                 160
Gln Ala Arg Asp Leu Arg Asp Lys Lys Asn Gln Gly Glu Ala Leu Leu
                165                 170                 175
Pro Glu Gln Leu Glu Lys Val Ile Lys Ile Gln Glu Leu Ile Arg Gln
            180                 185                 190
Leu Asp Ala Leu Gly Phe Asp Ala Asn Gly Asp Lys Lys Asp Ser Ser
        195                 200                 205
Glu Glu Lys Glu Lys Glu Lys Glu Lys Glu Lys Glu Lys Glu Gly Ala
    210                 215                 220
```

<210> 33111
<211> 193
<212> PRT
<213> A.fumigatus

<400> 33111

```
Trp Arg His Glu Gln Leu Lys Pro Gly Asp Ala Cys Ala Glu His Glu
1               5                   10                  15
Pro Ser His Ile Gln Leu Pro Glu Leu Asn Ile Pro Gln Ile Gln Ala
            20                  25                  30
Asp Leu Ile Ser Ile Pro Val Tyr Arg Pro Lys Met Arg Glu Thr Thr
        35                  40                  45
Ala Leu Gly Ala Ala Ile Ala Ala Gly Leu Ala Val Gly Val Trp Arg
    50                  55                  60
```

```
Asn Phe Ala Glu Leu Arg Asp Ile Asn Arg Ala Gly Gly Ala Val Phe
65                  70                  75                  80
Glu Pro Lys Ile Ser Arg Glu Glu Ser Ala Lys Ser Phe Ala Arg Trp
                85                  90                  95
Glu Lys Ala Val Ala Met Cys Lys Gly Trp Ser Gly Asp Ala Pro Pro
            100                 105                 110
Pro Pro Val Gln Pro Ala Gln Lys Glu Ala Lys Lys Asn Ala Pro Glu
        115                 120                 125
Val Ile Thr Asn His Asn Ala Ile Asn Ala Thr Pro Pro Lys Phe Asn
    130                 135                 140
Gly Glu Leu Thr Thr Pro Lys Phe Pro Leu Ile Ser Ile Ser Gly Asp
145                 150                 155                 160
Leu Asp Asn Ala Asp Glu Glu Glu Leu Tyr Leu Glu Leu Arg Lys Ile
                165                 170                 175
Glu Ile Leu Gln Arg Leu Lys Lys Leu Arg Lys Leu Lys Leu Ser Phe
            180                 185                 190
Tyr
```

<210> 33112
<211> 349
<212> PRT
<213> A.fumigatus

<400> 33112

```
Leu Ser Gly Ile Asp Ala Asp Gln Leu Ser Asn Arg Trp His Glu His
1               5                   10                  15
Asp Pro Phe Glu Leu Val Ser Ser Val Glu Lys Cys Ile Glu Glu Ala
            20                  25                  30
Val Lys Gln Phe Glu Ser Glu Gly Tyr Ser Arg Tyr Gly Ile Lys Ala
        35                  40                  45
Ile Gly Ile Thr Asn Gln Arg Glu Thr Thr Val Val Trp Asp His Asp
    50                  55                  60
Thr Gly Glu Pro Leu Tyr Asn Ala Ile Val Trp Thr Asp Thr Arg Pro
65                  70                  75                  80
Gln Ala Ile Val His Glu Leu Lys Gln Lys Arg Glu Ser Ser Gln Leu
                85                  90                  95
Gln Ala Ile Cys Gly Leu Pro Leu Thr Thr Tyr Ser Ser Ala Thr Lys
            100                 105                 110
Leu Leu Trp Met Ile Glu His Val Pro Lys Val Lys Asp Ala Tyr Glu
        115                 120                 125
Arg Gly Thr Leu Ala Phe Gly Thr Val Asp Ala Trp Leu Val Tyr Arg
    130                 135                 140
Leu Asn Gly Gly Ala Ser Ala Asn Val Phe Val Ser Asp Pro Thr Asn
145                 150                 155                 160
Ala Ser Arg Thr Met Phe Met Asn Leu Glu Thr Leu Gln Tyr Asp Asn
                165                 170                 175
Phe Leu Leu Asp Phe Phe Gly Ile Arg Lys Val His Leu Pro Lys Ile
            180                 185                 190
Val Pro Ser Ser Asp Ala Lys Ala Tyr Gly Ala Met Ala Ser Gly Ile
        195                 200                 205
Leu Ala Gly Val Pro Ile Met Gly Cys Leu Gly Asp Gln Ser Ser Ala
    210                 215                 220
Leu Val Gly Gln Lys Gly Phe Ser Pro Gly Met Ala Lys Asn Thr Tyr
225                 230                 235                 240
Gly Thr Gly Cys Phe Leu Leu Tyr Asn Val Gly Glu Lys Pro Val Ile
```

```
                245                 250                 255
Ser Lys His Gly Leu Leu Ala Thr Val Ala Tyr His Phe Asp Gly Lys
            260                 265                 270
Pro Val Tyr Ala Leu Glu Gly Ser Ile Ala Val Ala Gly Ser Gly Ile
        275                 280                 285
Lys Phe Leu Gln Lys Asn Leu Ser Phe Phe Gln Glu Ser Lys Glu Val
    290                 295                 300
Asn Asp Leu Ala Gln Thr Val Glu Asp Ser Gly Gly Cys Val Phe Val
305                 310                 315                 320
Thr Ala Phe Ser Gly Leu Tyr Ala Pro Tyr Trp Ile Asp Asp Ala Lys
                325                 330                 335
Gly Thr Met Cys Lys Ala Thr Arg Ser Asn Ala Pro Phe
            340                 345
```

<210> 33113
<211> 76
<212> PRT
<213> A.fumigatus

<400> 33113

```
Ser Ala Leu Thr Ser Arg Thr Val Gly Ile Thr Gln Tyr Thr Gln Lys
1               5                   10                  15
Gly His Ile Ala Arg Ala Thr Leu Glu Ala Thr Cys Phe Gln Thr Lys
            20                  25                  30
Ala Ile Leu Asp Ala Met Glu Lys Asp Ser Gly His Ala Leu Ser Glu
        35                  40                  45
Leu Ala Val Asp Gly Gly Met Ser Asn Ser Asn Leu Ala Met His Val
    50                  55                  60
Gln Asn Met Ser Pro Leu Thr Phe Ser Tyr Arg Asn
65                  70                  75
```

<210> 33114
<211> 82
<212> PRT
<213> A.fumigatus

<400> 33114

```
Asp Pro Ala Ala Thr Gln Glu Thr Pro Glu Thr Gln Ala Phe Phe Leu
1               5                   10                  15
Leu Ser Val Ser Cys Ala His Val Leu Ala Phe Phe Phe Trp Asp Leu
            20                  25                  30
Tyr Leu Tyr Met Phe Met Leu Gln Ser Trp Arg Asn Asn Glu Ile Phe
        35                  40                  45
Val Tyr Gly Arg Ser Asp Ala Tyr Trp Thr Ile Ile Ala Met Arg Leu
    50                  55                  60
Leu Leu Phe Ala Leu Lys Ser Gln Leu Asn Lys Cys Gln Val Tyr Leu
65                  70                  75                  80
Ser Asp
```

<210> 33115
<211> 66
<212> PRT
<213> A.fumigatus

<400> 33115

```
Leu Ser Ala Phe Phe Ala Thr Asp Leu Gly Leu Lys Asp Gly Ser Ser
1               5                  10                  15
Gly Thr Val Asp Val Ser Gln Phe Ser Lys Ile Ser Pro His Pro Tyr
            20                  25                  30
Arg Gln Thr Ser Gly Tyr Ser Arg Thr Lys Cys Arg Gly Phe Pro His
        35                  40                  45
Leu Gly Thr Val His Arg Asp Arg Asp Glu Ile Cys Leu Asp Leu Trp
    50                  55                  60
Asp Ile
65
```

<210> 33116
<211> 70
<212> PRT
<213> A.fumigatus

<400> 33116

```
Ile Ser Met Arg Leu Leu Cys Ala Pro Gln Ile Cys Gly Ser Gly Phe
1               5                  10                  15
Arg Gly Glu Ile Ala Gln Leu Arg Arg Ala Thr Gln Asp Leu Ala Val
            20                  25                  30
Leu Val Gly Arg Ser Arg Ile Lys Leu Ser Asp Val Asn Tyr Gly Val
        35                  40                  45
Leu Arg Arg Leu Thr Thr Tyr Leu Asp Leu Thr Ser Leu Leu Leu Ile
    50                  55                  60
Asp Ala Gln Trp Ser His
65                  70
```

<210> 33117
<211> 139
<212> PRT
<213> A.fumigatus

<400> 33117

```
Leu Arg Ala His Gly Ile Ala Gly Val Tyr Arg Gly Leu Cys Ala Thr
1               5                  10                  15
Ile Leu Phe Arg Ser Phe Phe Phe Phe Trp Trp Gly Ser Tyr Asp Val
            20                  25                  30
Leu Thr Arg Trp Met Lys Asn Asn Thr Ala Met Ser Ala Pro Val Ile
        35                  40                  45
Asn Phe Trp Ala Gly Gly Ile Ser Ala Gln Ile Phe Trp Leu Thr Ser
    50                  55                  60
Tyr Pro Ser Asp Val Val Lys Gln Arg Leu Met Thr Asp Pro Met Gly
65                  70                  75                  80
Gly Ser Leu Gly Asp Gly Glu Arg Lys Phe Tyr Arg Trp Lys Asp Ala
                85                  90                  95
Ala Arg Ala Val Tyr Leu Glu Arg Gly Trp Arg Gly Tyr Trp Arg Gly
            100                 105                 110
Phe Val Pro Cys Phe Leu Arg Ala Phe Pro Ala Asn Ala Met Ala Leu
        115                 120                 125
Val Ala Phe Glu Gly Val Met Arg Ser Leu Pro
    130                 135
```

<210> 33118
<211> 114
<212> PRT

<213> A.fumigatus

<400> 33118
Ser Gly Ser Asp Pro Trp Gly Ser Met Leu Gly Ser Leu Thr Leu Tyr
1 5 10 15
Arg Arg Leu Leu Leu Glu Asn Val Phe Ser Arg Pro Ala Ile Arg Ser
20 25 30
Leu Thr Pro Phe Ala Ser Tyr Gln Pro Asp Pro Lys Thr Leu Pro Ser
35 40 45
Phe Gly His Gly Ile Ala Gly Ile Leu Ala Gly Thr Thr Val Ser Phe
50 55 60
Val Ala Ala Pro Val Glu His Ile Lys Ala Arg Leu Gln Ile Gln Tyr
65 70 75 80
Ala Ala Asp Lys Ser Lys Arg Met Tyr Ser Gly Pro Ile Asp Cys Leu
85 90 95
Thr Lys Leu Val Gly His Trp Glu Val Ser Arg Val Leu Glu Ala Ile
100 105 110
Val Gly

<210> 33119
<211> 83
<212> PRT
<213> A.fumigatus

<400> 33119
Phe Gly Gly Ser His Ala Asp Gly Met Gly Ala Cys Val Lys Glu Asp
1 5 10 15
Asp Lys Pro Phe Thr Val Arg Leu Ser Asp Glu Ser Phe Glu Thr Tyr
20 25 30
Glu Ile Asp Pro Pro Pro Tyr Asp Leu Glu Val Thr Lys Lys Glu Leu
35 40 45
Lys Gln Met Tyr Tyr Asp Met Val Val Thr Arg Tyr Gly Leu Arg Gly
50 55 60
Glu Glu Phe Met Leu Leu Cys His Ser Tyr Leu Thr Phe Asp Gly Ser
65 70 75 80
Cys Phe Val

<210> 33120
<211> 170
<212> PRT
<213> A.fumigatus

<400> 33120
Phe Ile Asp Asn Lys Tyr Gly Met Gly Thr Ser Ala Ala Arg Ser Ser
1 5 10 15
Ala Leu Thr Asp Tyr Tyr Lys Arg Gly Gln Tyr Ile Pro Gly Ile Lys
20 25 30
Val Asn Gly Met Asp Val Leu Ala Thr Lys Ala Ala Val Gln Tyr Ala
35 40 45
Arg Glu Tyr Thr Ile Ala Gly Asn Gly Pro Leu Val Phe Glu Tyr Val
50 55 60
Thr Tyr Arg Tyr Gly Gly His Ser Met Ser Asp Pro Gly Thr Thr Tyr
65 70 75 80
Arg Ser Arg Glu Glu Ile Gln Arg Met Arg Ser Thr Asn Asp Pro Ile

```
                85                  90                  95
Ala Gly Leu Lys Gln Lys Ile Leu Asp Trp Lys Val Met Thr Glu Glu
            100                 105                 110
Glu Leu Lys Ala Leu Asp Lys Ser Ala Arg Ser His Val Asp Glu Glu
        115                 120                 125
Val Ala Ile Ala Glu Gln Met Pro Ala Pro Glu Asn Asn Pro Arg Ile
    130                 135                 140
Leu Phe Glu Asp Ile Tyr Val Arg Gly Ser Glu Pro Arg Trp Met Arg
145                 150                 155                 160
Gly Arg Thr Val Asp Glu Thr Phe Tyr Tyr
                165                 170
```

<210> 33121
<211> 169
<212> PRT
<213> A.fumigatus

<400> 33121

```
Pro Leu Thr Ala Leu Ala Leu Ser Arg Arg Met Glu Met Ala Ala Asp
1               5                   10                  15
Arg Leu Tyr Lys Glu Lys Lys Ile Arg Gly Phe Cys His Leu Ser Val
            20                  25                  30
Gly Gln Glu Ala Val Ala Thr Gly Ile Glu His Ala Ile Thr Arg Asp
        35                  40                  45
Asp Lys Val Ile Thr Ala Tyr Arg Cys His Gly Tyr Ala Leu Met Arg
    50                  55                  60
Gly Gly Thr Val Arg Ser Ile Ile Gly Glu Leu Leu Gly Arg Arg Glu
65                  70                  75                  80
Gly Ile Ala Tyr Gly Lys Gly Gly Ser Met His Met Phe Ala Pro Asn
                85                  90                  95
Phe Tyr Gly Gly Asn Gly Ile Val Gly Ala Gln Val Pro Val Gly Ala
            100                 105                 110
Gly Leu Ala Phe Ala Gln Gln Tyr Asn Gly Glu Lys Ala Thr Ser Ile
        115                 120                 125
Val Leu Tyr Gly Asp Gly Ala Ser Asn Gln Gly Gln Val Phe Glu Ala
    130                 135                 140
Phe Asn Met Ala Lys Leu Trp Asn Leu Pro Ala Ile Phe Gly Cys Glu
145                 150                 155                 160
Ser Lys Leu Ile Phe Ile Ala Thr Tyr
                165
```

<210> 33122
<211> 576
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (12),(54),(65)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33122

```
Leu Ala Phe Pro Leu Thr Arg Gln Gly Lys Phe Xaa Thr Asp Pro Ser
1               5                   10                  15
Thr Val Phe Leu Pro Lys Asp Thr Val Thr Gly Pro Ile Ser Val Ile
            20                  25                  30
```

```
Leu Ser Glu Tyr Ser Asn Lys His Ile Ala Asp Val Ala His Arg Thr
        35                  40                  45
Phe Gly Gly Arg Leu Xaa Pro His Phe Thr Thr Thr Pro Pro Pro Arg
    50                  55                  60
Xaa Gln Val His Gln Leu Pro Ile Pro Ile Glu Ala Ser Gln Arg His
65                  70                  75                  80
Met Ser Gln Met Glu Gly Asn Val Tyr Met Ala Ala Leu Tyr Pro Gly
                85                  90                  95
Met Tyr Ala Ser Ala Leu Ser Val Leu Val Glu Val Arg Lys Arg Leu
            100                 105                 110
Gly Thr Asn Trp Ile Arg Arg Leu Met Ala Gln Gln Asp Gly Pro His
        115                 120                 125
Val Leu Asp Ala Gly Ala Gly Gly Ala Gly Ile Leu Ala Trp Arg Asp
    130                 135                 140
Val Leu Arg Ala Glu Trp Glu Ala Met Val Pro Asp His Pro Glu Thr
145                 150                 155                 160
Asp Pro Ile Pro Leu Gly Arg Ser Thr Val Val Thr Ala Ser Glu Ala
                165                 170                 175
Leu Arg Asn Arg Ala Ser Val Met Val His Asn Thr Thr Phe Phe Pro
            180                 185                 190
Arg Leu Pro Asp Tyr Ile His Val Arg Glu Lys Pro Thr Leu Asp Asp
        195                 200                 205
Glu Arg Pro Pro Pro Pro Arg Lys Gln Tyr Asp Val Ile Ile Ala Pro
    210                 215                 220
His Ser Leu Leu Gly Leu Glu Glu Glu Tyr Met Arg Lys Glu His Val
225                 230                 235                 240
Glu Asn Leu Trp Thr Leu Leu Asn Pro His Gly Gly Val Leu Ile Leu
                245                 250                 255
Leu Glu Lys Gly His Gln Lys Gly Phe Glu Ala Ile Ala Gly Ala Arg
            260                 265                 270
Glu Met Leu Leu Lys Ser Tyr Ile Ser Ser Pro Gly Tyr Thr Gln Tyr
        275                 280                 285
Asp Glu Leu Thr Glu Ser Pro Asn Glu Asn Lys His Ile Asp Lys Glu
    290                 295                 300
Glu Gly Met Ile Ile Ala Pro Cys Thr Asn His Ala Lys Cys Pro Met
305                 310                 315                 320
Tyr Thr Val Ala Gly His Ala Lys Gly Arg Arg Asp Phe Cys His Phe
                325                 330                 335
Glu Gln Arg Tyr Ile Arg Pro Ala Phe Leu Gln Arg Ile Leu Gly Ala
            340                 345                 350
Lys Asp Arg Asn His Glu Asp Val Lys Phe Ser Tyr Leu Ala Val Gln
        355                 360                 365
Arg Gly Val Asp Leu Arg Lys Glu Met Asn Ile Val Gln Gly Pro Glu
    370                 375                 380
Ala Ala Glu Ala Ala Phe Ala Gly Tyr Glu His Leu His Asp Met Glu
385                 390                 395                 400
Ser Glu Asp Ala Gln Val Ser Asp Asp Ala Ala Thr Ser Glu Pro Ser
                405                 410                 415
Ala Ala Gln Asp Gly Arg Asp Phe His Thr Leu Ser Leu Pro Arg Ala
            420                 425                 430
Val Tyr Ala Pro Met Lys Arg Arg Gly His Val Ile Phe Asp Phe Cys
        435                 440                 445
Thr Pro Ala Gly Lys Ile Glu Arg Trp Thr Val Pro Arg Ser Tyr Ser
    450                 455                 460
Lys Gln Ala Tyr Arg Asp Ala Arg Lys Ala Arg Trp Gly Asp Leu Trp
465                 470                 475                 480
```

```
Ala Leu Gly Ala Lys Thr Arg Val Pro Arg Ser Leu Arg Leu Gly Ala
                485                 490                 495
Lys His Gly Glu Gly Lys Lys Glu Arg Leu Glu Lys Arg Ala Ala Ser
            500                 505                 510
Lys Ala Ala Leu Gly Glu Ser Glu Asp Gly Gly Leu Glu Ser Ala Pro
        515                 520                 525
Ser Asp Asn Trp Asp Val Phe Thr Thr Pro Val Arg Lys Lys Gly Gln
    530                 535                 540
Thr Ile Pro Ser Trp Lys Lys His Gln Asp Lys Lys Lys Ile Arg Gln
545                 550                 555                 560
Ala Ser Lys Lys Gln Ser Thr Val Lys Leu Thr Asp His Asp Leu Asp
                565                 570                 575
```

<210> 33123
<211> 94
<212> PRT
<213> A.fumigatus

<400> 33123

```
Lys Arg Pro Asp Ile Gly Leu Pro Gly Lys Pro Arg Cys Phe Pro Leu
1               5                   10                  15
Leu Leu Val Ala Pro Phe Ser Ser Ser Ile Asn Ser Leu Asn Leu Pro
            20                  25                  30
Gln Pro Glu Val Ser Phe Lys Leu His Asn Lys Ser Gln Cys Leu Ser
        35                  40                  45
Ser Glu Arg Ser Ser Leu Pro Leu Trp Val Cys Tyr Lys Thr Pro Thr
    50                  55                  60
Thr Leu Val Arg Trp Arg Ser Glu Tyr Val Thr Asn His Ser Ile Thr
65                  70                  75                  80
Ala Lys Pro Met Ala Pro Phe Phe Ala Ala Gly Met Pro Ser
                85                  90
```

<210> 33124
<211> 80
<212> PRT
<213> A.fumigatus

<400> 33124

```
Gly Thr Ala Gly Lys Lys Thr Ala Thr His Leu His Pro Asp Asn Tyr
1               5                   10                  15
Thr Ser Asn Gly Tyr Phe Asn Met Ala Ala Ser Leu Gln Ala Ser Val
            20                  25                  30
Asp Ser Leu Gln Ser Ser Leu Gln Thr Leu Asp Ser Ser Ile Ser Thr
        35                  40                  45
Leu Asp Ser Ala Val Ser Asp Phe Pro Arg Leu Cys Lys Val Leu Gln
    50                  55                  60
Thr Thr Arg Val Arg Asp Met Thr Val Arg Gln Ala Tyr His Phe Leu
65                  70                  75                  80
```

<210> 33125
<211> 80
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE

<222> (54),(67)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33125
Pro Pro Ser Pro Thr Thr Lys Glu Asp Asn His Pro Asn Tyr Thr Tyr
1 5 10 15
Gln Ile Ile Met Tyr Leu Arg Ala Val His Ala Glu Thr His Ile Pro
20 25 30
Leu Leu Gln Gln Phe Ile Arg Asp Asn Pro Leu Gly Ile Leu Thr Thr
35 40 45
Ala Ile Lys Ser Pro Xaa Tyr Pro Leu Leu Gln Ser Ser His Val Pro
50 55 60
Phe Val Xaa Asp Ile Pro Thr Cys Gln Arg Val Gly Lys Ser Gly Lys
65 70 75 80

<210> 33126
<211> 200
<212> PRT
<213> A.fumigatus

<400> 33126
His Thr Thr Met Asp Thr Thr Lys Ser Leu Leu Ser Thr Leu Ile Ala
1 5 10 15
Ile Met Ile Pro Leu Ser Leu Gly Ser Val Ser Ser Pro Asn Leu Leu
20 25 30
Pro Thr Pro Pro Met Gly Phe Asn Asn Trp Ala Arg Phe Met Cys Asp
35 40 45
Leu Asn Glu Thr Leu Phe Leu Glu Thr Ala Ser Ala Met Ile Ser Thr
50 55 60
Gly Leu Leu Glu Ala Gly Tyr Asn Arg Val Asn Leu Asp Asp Cys Trp
65 70 75 80
Met Ala Tyr Asp Arg Ala Ala Asp Ser Ser Leu Gln Trp Asn Thr Thr
85 90 95
Lys Phe Pro His Gly Ile Pro Trp Leu Ala Arg His Leu Lys Ala Gln
100 105 110
Gly Phe His Val Gly Ile Tyr Glu Asp Ala Gly Asp Leu Thr Cys Gly
115 120 125
Gly Tyr Pro Gly Ser Phe Gly His Gln Ala Leu Asp Ala Gln Thr Phe
130 135 140
Ala Thr Trp Gly Ile Asp Tyr Leu Lys Leu Asp Gly Cys Asn Val Phe
145 150 155 160
Pro Glu His Ser Arg Pro Leu Glu Glu Arg Val Gln Ser Pro Val Arg
165 170 175
Thr Leu Ala Gln His Pro Lys Ala Asp Ala Pro Pro Val Tyr Phe Leu
180 185 190
Glu Ser Ala Pro Gly Asp Phe Ala
195 200

<210> 33127
<211> 107
<212> PRT
<213> A.fumigatus

<400> 33127
Ile Tyr Thr Tyr Val His Thr Pro Trp Thr Arg Ala Leu Ala Lys Cys
1 5 10 15

```
Asn Tyr Leu Gly Lys Pro Ala Phe Asn Asp Glu Tyr Thr Tyr Gln Val
            20                  25                  30
Ser Ser Arg His Leu Ile Leu Ala Ser Pro Phe Phe Arg Ala Ala Leu
        35                  40                  45
Thr Lys Gly Trp Lys Glu Thr His Thr Leu Gly Thr His Gly Ser Val
    50                  55                  60
Ser Phe Thr Val Tyr Asp Trp Asp Asp Gln Ala Leu Leu Thr Phe Leu
65                  70                  75                  80
Asn Ile Ile His Ala Thr Thr Pro Arg Ser Ala Met Glu Ser Arg Val
                85                  90                  95
Arg Ala Ile Cys Glu Asp His Leu His Arg Glu
            100                 105
```

<210> 33128
<211> 72
<212> PRT
<213> A.fumigatus

```
<400> 33128
Pro Arg Ser Val Ser Leu Ser Glu Ser Ser Tyr His Thr His Thr Ser
1               5                   10                  15
Met Met Pro Leu Ser Gln Asp Ser His Pro Ser Thr Lys Ala Leu His
            20                  25                  30
Ala Asp Gly Arg Leu Asn Leu Val Thr Asp Val Ala Pro Pro Ile His
        35                  40                  45
Leu Ser Thr Thr Phe Arg Tyr Pro Asn Asp Pro Asp Gln Leu Ile Pro
    50                  55                  60
Ser Glu Asp Pro Ile Val Ser Leu
65                  70
```

<210> 33129
<211> 345
<212> PRT
<213> A.fumigatus

```
<400> 33129
His Pro Lys Ala Glu Phe Asp Gly Lys Asn Tyr Val Tyr Ser Arg Glu
1               5                   10                  15
Phe Ala Pro Asn Ala Thr Arg Phe Glu Ala Ile Leu Ser Thr Leu Leu
            20                  25                  30
Gly Ser His Ala Val Ser Tyr Ala Thr Gly Leu Ala Ala Leu His Ala
        35                  40                  45
Ala Leu Val Leu Leu Asn Pro Arg Arg Ile Ser Val Gly Glu Gly Tyr
    50                  55                  60
His Gly Ser His Glu Val Ile Gly Val Leu Thr Arg Leu Thr Gly Leu
65                  70                  75                  80
Lys Lys Leu Pro Leu Asp Cys Pro Ala Glu Asp Leu Gln Glu Gly Asp
                85                  90                  95
Val Ile Leu Leu Glu Thr Pro Val Asn Pro Leu Gly Thr Ala Phe Ser
            100                 105                 110
Ile Glu Ala Tyr Ala Gln Lys Ala His Ser Arg Gly Ala Tyr Leu Ile
        115                 120                 125
Val Asp Ser Thr Phe Ala Pro Pro Gly Leu Gln Asp Pro Phe Leu Trp
    130                 135                 140
Gly Ala Asp Ile Val Leu His Ser Gly Ser Lys Tyr Phe Gly Gly His
145                 150                 155                 160
```

```
Ser Asp Met Leu Cys Gly Val Leu Gly Val Lys Arg Ala Glu Trp His
                165                 170                 175
Arg Gln Leu Leu Glu Asp Arg Ala Ala Leu Gly His Val Met Gly Asn
            180                 185                 190
Leu Glu Ser Trp Leu Gly Val Arg Ser Leu Arg Thr Leu Glu Val Arg
        195                 200                 205
Val Gln Arg Ala Ser Gln Asn Ser Ala Lys Leu Ile Ser Trp Leu Asn
    210                 215                 220
Asp Ala Leu Thr Ala Ala Ser Pro Thr Pro Gly Ser Glu Glu Glu Ile
225                 230                 235                 240
Val Gln Lys Val Leu Val Lys Ile Tyr His Ala Ser Leu Gln Asp Glu
                245                 250                 255
Glu Trp Leu Lys Arg Gln Met Pro Asn Gly Phe Gly Pro Val Phe Ala
            260                 265                 270
Ile Val Met Lys Asp Glu Arg Leu Ala Lys Thr Leu Pro Ser Lys Leu
        275                 280                 285
Ser Leu Phe Gln His Ala Thr Ser Leu Gly Gly Val Glu Ser Leu Ile
    290                 295                 300
Glu Trp Arg Ala Leu Ser Asp Ser Arg Val Asp Arg Lys Leu Leu Arg
305                 310                 315                 320
Ile Ser Val Gly Leu Glu Asp Trp Gln Asp Leu Lys Met Asp Leu Leu
                325                 330                 335
Ser Ala Phe Lys Ser Leu Leu Glu Val
            340                 345
```

<210> 33130
<211> 209
<212> PRT
<213> A.fumigatus

```
<400> 33130
Arg Gly Tyr Thr Asp Ser Arg Leu Pro Gly Asp Thr Ser Thr Thr Asp
1               5                   10                  15
Gly Ile Arg Gly Ile Ala Ala Glu Leu Thr Lys Ala Glu Ser Lys Gly
            20                  25                  30
Ile Asn Ile Leu Ile Asn Ser Ala Ser Val Thr Ser Glu Pro Arg Ala
        35                  40                  45
Lys Ser Thr Ser Ser Asp Thr Asp Phe Thr Asp Pro Asp Ala Val Ser
    50                  55                  60
Arg Trp Met Thr Cys Asp Gly Ala Asp Ala Trp Arg Ile Ala Tyr Ala
65                  70                  75                  80
Gly Asn Val Trp Ser His His Phe Leu Thr Ala Ala Leu Leu Pro Leu
                85                  90                  95
Leu Val Lys Gly Ala Lys Ala Ala Pro Gly His Ser Ser Val Val Leu
            100                 105                 110
Asn Val Ala Ser Val Ala Gly Leu Thr Lys Thr His Ser Gln Gly Gln
        115                 120                 125
Phe Ala Tyr Ser Ser Ser Lys Ala Ala Leu Ile His Leu Thr Arg Glu
    130                 135                 140
Trp Ala His Thr Phe Leu Pro Leu Gly Val Arg Val Ser Cys Ile Ala
145                 150                 155                 160
Pro Ser Val Phe Pro Asn Glu Ile Ser Val Gly Arg Phe Asp Glu Asp
                165                 170                 175
Arg Arg Ser Thr Gln Glu Glu Glu Leu Trp Arg Lys Ile Pro Ala Gly
            180                 185                 190
Glu Ser Cys Phe Ile Ala Val Gly Gly Cys Ala Leu Arg Thr Gly Val
```

195 200 205
Ser

<210> 33131
<211> 164
<212> PRT
<213> A.fumigatus

<400> 33131
Ile Arg Ser Glu Met Asp Thr Ala Pro Arg Tyr Asn Phe Lys Asp Ile
1 5 10 15
Asn Val His Asp Leu Glu Ala Ala Thr Leu Phe Glu Val Arg Gly Tyr
20 25 30
Val Ala Val Val Thr Gly Ala Gly Asn Gly Val Gly Leu Met Ala Ala
35 40 45
Gln Thr Leu Ala Ala Asn Gly Ala Arg Val Tyr Ile Ile Gly Thr Arg
50 55 60
Glu Glu Ile Leu Asp Thr Ile Gly Glu Lys Tyr Ser Phe Lys Gly Gln
65 70 75 80
Ile Thr Pro Cys Val Leu Ser His Ser Ile Pro Ser Ser Thr Ala Pro
85 90 95
Thr Asp Glu Gly Ile Leu Thr Pro Asp Ser Pro Glu Ile Leu Pro Leu
100 105 110
Gln Thr Glu Phe Val Ala Ser Gln Gln Asn Ser Pro Lys Pro Asn Gln
115 120 125
Lys Gly Ser Thr Phe Ser Ser Thr Ala Gln Ala Leu Pro Ala Ser Pro
130 135 140
Ala Arg Lys Ala His Pro Pro Thr Pro Thr Ser Gln Thr Gln Thr Pro
145 150 155 160
Ser Arg Asp Gly

<210> 33132
<211> 213
<212> PRT
<213> A.fumigatus

<400> 33132
Tyr Phe Thr Leu Asp Leu Ser Phe Leu Phe Pro Cys Ser Val Thr His
1 5 10 15
Asn Arg Leu Ala Ser Pro Gly Asp Tyr Val Asp Arg Gly Tyr Tyr Ser
20 25 30
Val Glu Thr Val Thr Leu Leu Val Cys Leu Lys Ile Arg Tyr Pro Gln
35 40 45
Arg Ile Thr Ile Leu Arg Gly Asn His Glu Ser Arg Gln Ile Thr Gln
50 55 60
Val Tyr Gly Phe Tyr Asp Glu Cys Leu Arg Lys Tyr Gly Asn Ala Asn
65 70 75 80
Val Trp Lys Tyr Phe Thr Asp Leu Phe Asp Tyr Leu Pro Leu Thr Ala
85 90 95
Leu Ile Glu Asn Gln Ile Phe Cys Leu His Gly Gly Leu Ser Pro Ser
100 105 110
Ile Asp Thr Leu Asp Asn Ile Arg Ser Leu Asp Arg Ile Gln Glu Val
115 120 125
Pro His Glu Gly Pro Met Cys Asp Leu Leu Trp Ser Asp Pro Asp Asp

```
    130                 135                 140
Arg Cys Gly Trp Gly Ile Ser Pro Arg Gly Ala Gly Tyr Thr Phe Gly
145                 150                 155                 160
Gln Asp Ile Ser Glu Ala Phe Asn His Asn Asn Gly Leu Thr Leu Val
                165                 170                 175
Ala Arg Ala His Gln Leu Val Met Glu Gly Tyr Asn Trp Ser Gln Asp
            180                 185                 190
Arg Asn Val Val Thr Ile Phe Ser Gly Met Ala Pro Leu Pro Ile Leu
        195                 200                 205
Ile Cys Thr His His
    210
```

<210> 33133
<211> 109
<212> PRT
<213> A.fumigatus

<400> 33133

```
Pro Leu Leu His Glu His Ile Asn Trp Leu Trp Arg Ala Thr Ile Gly
1               5                   10                  15
Arg Arg Ile Glu Met Trp Ser Pro Phe Phe Arg Val Trp Pro Leu Phe
            20                  25                  30
Pro Phe Leu Phe Val Pro Thr Thr Asn Met Ser Phe Ser Ala Pro Asn
        35                  40                  45
Tyr Cys Tyr Arg Cys Gly Asn Gln Ala Ala Ile Met Glu Ile Asp Glu
    50                  55                  60
His Leu Lys Tyr Thr Leu Tyr Val Pro Leu Lys Ala Asn Val Arg Pro
65                  70                  75                  80
Trp Phe Ile Arg Thr Asn Cys Phe Ser Lys Leu Thr Ile Arg Ser Leu
                85                  90                  95
Pro Thr Arg Gly Arg Thr Asp Gly Leu Glu Thr Tyr Thr
            100                 105
```

<210> 33134
<211> 159
<212> PRT
<213> A.fumigatus

<400> 33134

```
Val Lys Asp Leu Arg Gly Phe Val Lys Asn Asn Phe Lys Met Gln Leu
1               5                   10                  15
Asp Phe Ser Thr Arg Arg Pro Gln Val Ser Trp Asn Asp Asp Lys Arg
            20                  25                  30
Val Phe Leu Cys Cys Leu Tyr Lys Phe Phe Glu Arg Asp Gly Thr Ala
        35                  40                  45
Phe Glu Lys Ile Phe Asn Ala Arg Tyr Lys Gly Asp Leu Glu Asp Ser
    50                  55                  60
Gly Phe Ala Asp Gly Arg Thr Ser Ser Lys Thr Leu Asn Thr Gln Trp
65                  70                  75                  80
Val Asp Met Lys Arg His Gly Asp Pro Ile Trp Gly Arg Val His Lys
                85                  90                  95
Ser Pro Leu Asn Gln Asp Asp Trp Leu Pro Ile Lys Asn Ile Ile Ile
            100                 105                 110
Asp Val Ala Gln Ser Leu Gly Val Pro Leu Ala Glu Lys Glu Ile Asp
        115                 120                 125
Asp Ile Asp Thr Ser Asn Tyr Arg Ser Arg Ala Ala Lys Ser Gly Arg
```

```
    130                 135                 140
Thr Ile Thr Ser Asp Pro Val Val Pro Thr Ser Ser Ser Val Ser
145                 150                 155

<210> 33135
<211> 250
<212> PRT
<213> A.fumigatus

<400> 33135
Ala Leu Cys Glu Ala Ile Thr Phe Arg Arg Phe Tyr Ile Asp Asp Arg
1               5                   10                  15
Thr Pro Thr Arg Lys Ala Ser Ile Leu Gly Ser Gly Thr Ser Pro Ala
            20                  25                  30
Tyr Leu Leu Thr Leu Arg Ser Ala Asn Ser Phe Leu Thr Lys Phe Pro
        35                  40                  45
Trp Lys Asn Ser Met Val Val Leu Asn His Val Ser Ile Ala Ser His
    50                  55                  60
Pro Ser Pro Phe Ile Ser Thr Phe Gln Ser Ile Leu Ala Pro Ile His
65                  70                  75                  80
Arg Ala Leu Trp Gly Lys Glu Gly Ala Met Val Ser Ile Ile Asp Thr
                85                  90                  95
Arg Lys Leu Thr Gly Pro Val Tyr Phe Ala Lys Ser Leu Val Gln Gln
            100                 105                 110
Asn Lys Ile Arg Ile Arg Gly Tyr Asn Gly Val Gly Glu Tyr Leu Ile
        115                 120                 125
Trp Gly Glu Ile Gln Thr Pro Ala Ile Ile Cys Ser Phe Lys Ile Thr
    130                 135                 140
Thr Leu Ile Gln Ile Ala His Lys Asn Glu Asp Ile Gly Arg Ile Leu
145                 150                 155                 160
Gln Leu Asp Lys Ile Ala Ser Cys Lys Arg Val Arg Gly Lys Leu Arg
                165                 170                 175
Thr Val Leu Ser Asn Glu Thr Asp Ser Met Asn Leu Asp His Ala Ser
            180                 185                 190
Gly Val Ser Leu Gly Lys Leu Leu Arg Leu Ile Asn Val Pro Gln Ala
        195                 200                 205
Tyr Tyr Gln Met Val Gly Glu Gly Ile Leu Lys Ser Trp Gln Leu Gln
    210                 215                 220
Lys His Gly Asp Trp Gln Glu Phe Leu Gln Gly Leu Glu Val Gly Phe
225                 230                 235                 240
Phe Thr Trp Leu Arg Gln Thr Thr Leu Asn
                245                 250

<210> 33136
<211> 177
<212> PRT
<213> A.fumigatus

<400> 33136
Tyr Pro Asp Asn Leu Asp Ala Arg Pro Thr Gly Thr Ala Leu Ala Lys
1               5                   10                  15
Glu Ile Gly Arg Asn His Leu Val Gln His Gly Thr Val Val His Glu
            20                  25                  30
Glu Glu Glu Glu Arg Phe Glu Glu Ile Glu Glu Asp Lys Asp Glu Asp
        35                  40                  45
Glu Asp Glu Asp Glu Asp Glu Glu Glu Lys Glu Glu Glu Asp Asp Asp
```

```
    50                  55                  60
Ser Asp Asp Phe Gln Ser Val Ile Gly Thr Pro Cys Pro Val Arg Leu
65                  70                  75                  80
Ala His Thr Val Ser Ser Ile Pro Pro Pro Asp Pro Arg Pro Val Asn
                85                  90                  95
Arg Ile Glu Leu Tyr Asn Pro Ala Thr Arg Asn Trp Ser Leu Ala Glu
            100                 105                 110
Glu Ser Ser Thr Pro Thr Glu Ile Glu Ala Phe Ser Arg Glu Phe Ser
        115                 120                 125
Val Ile Phe Leu Asp Asp Phe Glu Glu Glu Ile Glu Glu Leu Gly Asp
    130                 135                 140
Thr Ile Met Gly Lys Asp Ile Ser Asp Leu Ser Thr Pro Glu His Pro
145                 150                 155                 160
Pro Lys Asp Gln Phe Ala Ser Asp Arg Glu Arg Ile Lys Arg Phe Leu
                165                 170                 175
Lys
```

<210> 33137
<211> 121
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (41)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33137

```
Phe Glu Thr Asp Lys Lys Cys Pro Phe Thr Gly Met Val Ser Ile Arg
1               5                   10                  15
Gly Arg Ile Leu Thr Gly Arg Val Val Ser Thr Lys Met His Arg Thr
            20                  25                  30
Ile Ile Ile Arg Arg Glu Tyr Leu Xaa Tyr Val Pro Lys Tyr Asn Arg
        35                  40                  45
Tyr Glu Lys Arg His Lys Asn Leu Ala Ala His Val Ser Pro Ala Phe
    50                  55                  60
Arg Val Glu Glu Gly Asp Trp Val Thr Val Gly Gln Cys Arg Pro Leu
65                  70                  75                  80
Ser Lys Thr Val Cys Gly Asn Pro Pro Arg Asn Gly Ser Ala Arg Tyr
                85                  90                  95
Phe Arg Gln Arg Leu Met Leu Lys Trp Lys Leu Ser Trp Ser Gly Arg
            100                 105                 110
Gln Ser Thr Leu Ser Ile Asn Pro Val
        115                 120
```

<210> 33138
<211> 86
<212> PRT
<213> A.fumigatus

<400> 33138

```
Ser Asn Trp Thr Arg Arg Ala Asn Asp Arg Leu Lys Val Val Thr Ile
1               5                   10                  15
Ile Ile Phe Leu Phe Leu Phe Leu Phe Val Phe Val Phe Val Phe Val
            20                  25                  30
```

```
Phe Ile Phe Val Phe Leu Tyr Leu Phe Glu Ser Leu Phe Leu Phe Phe
        35                  40                  45
Met His Asn Gly Ala Met Leu Asn Lys Met Ile Ser Ser Asn Phe Leu
    50                  55                  60
Ser Gln Ser Cys Ser Cys Arg Pro Cys Ile Gln Val Val Trp Val Ser
65                  70                  75                  80
Val Glu Gly Cys Leu Thr
                85
```

<210> 33139
<211> 562
<212> PRT
<213> A.fumigatus

<400> 33139

```
Val Leu Phe Tyr Ile Asp Lys Pro Ile Val Arg Arg Lys Glu Val Thr
1               5                  10                  15
Thr Trp Ala Pro Glu Leu Ala Arg His Gly Arg Gly Ser Asp Ala Arg
            20                  25                  30
Ser Ile Gln Thr Leu Gly Val Pro Met His Arg Asp Pro Arg Asn Lys
        35                  40                  45
Asn Thr Cys Val Glu Thr Thr Ser Met Ala Thr Pro Ser Ser Asp Val
    50                  55                  60
Pro Val Pro His Leu Ala Ser Arg Gln Thr Arg Arg Asp Arg Glu Asp
65                  70                  75                  80
Pro Asp Pro Ala Ala Pro Gly Val Asn Asp Ser Leu Ala Ser Glu Asn
                85                  90                  95
Leu Leu Arg Asn Leu Gln Arg Ser Glu Ser Ser Ala Val Ser Ala Asn
            100                 105                 110
Ser Ser Val Pro Ser Asn Gly Gly Arg Trp Gly Asn Ile Phe Ser Gly
        115                 120                 125
Leu Trp Ile Ser Arg His Glu Ser Ser Thr Ala Glu Gly Asn Pro Thr
    130                 135                 140
Val Pro Val Ala Glu Pro Arg Lys Arg Ser Val Ser Ala Tyr Val Gly
145                 150                 155                 160
Pro Ser Lys Arg Ser Pro Pro Thr Leu Ser Gln Met Val Lys Glu Val
                165                 170                 175
Ser Gly Glu Thr Pro Gly Glu Val Ser Glu Thr Thr Thr Ser Gly Thr
            180                 185                 190
Ile Ser Ile Pro Arg Ser Ser Ser Gln Gln Gly Pro Glu Glu Asn Thr
        195                 200                 205
Pro Glu Pro Ser Ser Val Pro Glu Gln Asn Arg Glu Ser Ser Leu Lys
    210                 215                 220
Leu Ser Val Arg Gly Asp Asp Gly Ile Val Asp Val Glu Leu Pro Leu
225                 230                 235                 240
Pro Gly Phe Leu Ser Leu Ser Ser Ser Gly Asp Ser Thr Ile Ala Ser
                245                 250                 255
Pro Lys Lys Thr Arg Thr Ser Val Thr Ser Val Asp Ala Leu Ala Ser
            260                 265                 270
Thr His Ser Ser Asn Ser Gly Phe His Cys Gly Gly Pro Arg Asp Asn
        275                 280                 285
Asp Gly Pro Ser Val Asn Val Ala Gly Trp Leu Lys Asn Phe His Glu
    290                 295                 300
Asp Phe Leu Leu Gln Gly Val Arg Pro Ser Ala Ser Val Glu Ala Asp
305                 310                 315                 320
Ile Lys Arg Ala Met Gln Ala Glu Pro Thr Pro Ser Ser Ala Phe Ser
```

```
                325                 330                 335
Phe Glu Pro Glu Gly Gln Gly Lys Trp Val Asp Val Ala Thr Thr Leu
            340                 345                 350
Ile Ala Asp Thr Arg Asn Phe Thr Val Lys Arg Leu Arg Leu Arg Arg
        355                 360                 365
Lys Val Val Gly Asn Gly Ser Cys Arg Ser Pro Ser Thr Pro Gly Ala
    370                 375                 380
Ala Ser Gln Pro Gly Thr Pro Arg His Leu Phe Gly His Pro Thr Ser
385                 390                 395                 400
Ala Ser Gln Leu Thr Ser Phe Phe Ser Asn Ala Pro Ala Ser Ser Gly
                405                 410                 415
Ala Ser Ala Asn Ser Val Ala Glu Ala Phe Asp Ala Pro Glu Tyr Glu
            420                 425                 430
Glu Arg Phe Val Glu Glu Pro Val Met Asp Leu Asp Gly Thr Leu Val
        435                 440                 445
Asp Ala Leu Glu Arg Val Leu Ala Gln Ser Gly Gln Ser Ser Leu Ala
    450                 455                 460
His Ser Arg Ala Gln Ser Pro Ser Arg Gly Arg Arg Gly Glu Asp Lys
465                 470                 475                 480
Asn Thr Ser Asp Thr Val Ser Arg Asp Glu Val Pro Ser Ile Glu Val
                485                 490                 495
Pro Arg Ala Glu Cys Arg Lys Met Val Leu Gly Ala Leu Glu Glu Val
            500                 505                 510
Val Arg Ser Val Thr Ala Glu His Cys Arg Glu Asp Val Asp Gly Glu
        515                 520                 525
Val Gly Leu Ala Asp Arg Glu Arg Arg Arg Ser Leu Ala Gly Ala Asp
    530                 535                 540
Asn Thr Leu Arg Glu Gly Ile Arg Lys Trp Leu Leu Glu Val Glu Glu
545                 550                 555                 560
Ala Trp
```

<210> 33140
<211> 851
<212> PRT
<213> A.fumigatus

<400> 33140

```
Pro Ser Glu Cys Met Ala Asp Lys Met Asp Val Asp Asn Pro Asn Thr
1               5                   10                  15
Pro Thr Ser Arg Asp Pro Arg Leu Val Ser Arg Asn Arg Pro Ala Pro
            20                  25                  30
Ala Arg Thr Ala Ser Leu Asp Ala Gly Ile Trp Gly Ser Pro Asn Gly
        35                  40                  45
Tyr Lys Leu Glu Ala Arg Ser Pro Asn Asn Pro Pro Pro Ile Asp Arg
    50                  55                  60
Gln Asp Glu Ala Pro Gly Asp Gln Phe Ile Arg Thr Leu Ser Glu Leu
65                  70                  75                  80
Ile Lys Ala Ala Val Asp Thr Ala Ala Arg Glu Val Glu Lys Asp Lys
                85                  90                  95
Leu Leu Lys Lys Lys Asp Met Thr Glu Gly Leu Leu Arg Lys Ala Lys
            100                 105                 110
Ala Ala Pro Asn Phe Pro Ser Thr Thr Ala Phe Phe Gln Gln Ala Arg
        115                 120                 125
Lys Asp Glu Asp Ser Glu Leu Thr Arg Met Asp Glu Thr Ile Ser Arg
    130                 135                 140
```

```
Thr Gln Ala His Tyr Arg Gln Leu Glu Asn Ser Leu Thr Thr Lys Trp
145                 150                 155                 160
Val Pro Leu Leu Leu Arg Asn His Ser Asp Ser Asp Gln Lys Ile Asn
                165                 170                 175
Lys Leu Gln Asp Glu Ile Arg Ala Leu Gln Lys Arg Ala Gly Asp Ser
            180                 185                 190
Glu Leu Gly Ala Ser Arg Glu Lys Tyr Gln Leu Leu Glu Thr Lys Met
        195                 200                 205
Lys Met Leu Gln Asp Arg Val Val Leu Leu Glu Lys Thr Ser Asp Asn
    210                 215                 220
Tyr Ala Thr Ser Ile Asn Thr Gln Met Arg Tyr Glu Lys Glu Asn Lys
225                 230                 235                 240
Glu Arg Val Asp Lys Leu Ser Ser Asp Ile Ala Gln Phe Ala Ser Gln
                245                 250                 255
Glu Thr Ile Leu Lys His Phe Ser Thr Glu Val Glu Glu Leu Lys Arg
            260                 265                 270
Ile Thr Ile Ala Leu Asp Ala Lys Leu Ser Ser Leu Gln Lys Ala Gln
        275                 280                 285
Glu Glu Tyr Ser Gly Ser Leu Gly Arg Val Asn Glu Ile Ile Asp Ala
    290                 295                 300
Gln Arg Lys Arg Leu Asp Ala Ser Asn Asp Asn Ser Ala Thr Phe Glu
305                 310                 315                 320
Lys Lys Phe Lys Glu Ile His Glu Arg Leu Ala Pro Ile Glu Lys Val
                325                 330                 335
His Val Ile Pro Pro Glu Gly Pro Ala Thr Val Pro Ile Asp Ala Ser
            340                 345                 350
Lys Ile Glu Leu Arg Leu Lys Asn Val Glu Asp Asn Leu Ala Lys Ile
        355                 360                 365
Pro Arg Pro Asp Ser Ser Leu Arg Ser Thr Val Gln Asn Leu Ser Glu
    370                 375                 380
Gln Leu Gln Gln Leu Gln Ser Leu Gln Ala Met Lys Asp Glu Phe His
385                 390                 395                 400
Phe Ala Glu Met Glu Glu Ile Lys Lys Ser Thr Val Asp Lys Ala Asp
                405                 410                 415
Ile Lys Ser Leu Lys Asp Asn Tyr Ser Arg Leu Ala Asp Glu Thr Arg
            420                 425                 430
Arg Ile Ser Gln Leu Asp Arg Ala Gly Ala Val Gly Gln Ala Glu Ile
        435                 440                 445
Gln Ser Leu Lys Asp Ser Tyr Ser Arg Leu Ala Gly Glu Ile Gln Lys
    450                 455                 460
Ile Gln Ser Asp Arg Ala Ile Ala Val Asp Lys Ala Glu Ile Gln Ser
465                 470                 475                 480
Leu Lys Glu Thr Cys Ser Arg Leu Ala Glu Asn Ile Gln Lys Met Ser
                485                 490                 495
Gln Trp Asn Pro Ala Ala Ala Leu Gln Gln Ile His Thr Val Asp Val
            500                 505                 510
Lys Ile Asn Thr Val Asp Ala Ala Leu Lys Tyr Ser Asn Arg Leu Leu
        515                 520                 525
Glu Ser Val Arg Val Gly Leu His Ser Leu Glu Thr Arg Tyr Asn His
    530                 535                 540
Leu Ser Thr Glu Met Val Val Lys Asn Met Val Val Ala Met Gln Glu
545                 550                 555                 560
Met Tyr Pro Ser Ala Gly Gln Leu Thr Glu Gln Ile Thr Thr Leu Lys
                565                 570                 575
Asn Gln Ala Glu Lys Glu Ile Ser Ser Leu Lys Lys Thr Ile Glu Gln
            580                 585                 590
```

```
Leu Val Gln Thr Gln Asn Ser Gln Lys Ala Leu Val Asn Cys Leu Gln
        595                 600                 605
Asp Asp Val Gly Gln Arg Ser Ala Glu Ile Thr His Leu Arg Asp Leu
    610                 615                 620
Phe Gly Lys Val Ala His Gln Val Ser Ala Leu Thr Glu Gln Leu Glu
625                 630                 635                 640
Glu Val Arg Ala Leu Pro Asp Lys Lys Gly Lys Glu Val Ser Asp Gly
                645                 650                 655
Gln Asn Arg Ile Glu Leu Asn Glu Ser Phe Arg Glu Leu Lys Asp Gln
            660                 665                 670
Val Gln Asn Leu Ser Ser Gly Leu Asn Gln Met Lys Val Val Met Ser
        675                 680                 685
Glu Ile Thr Leu Asn Lys Lys Asp Leu Gln Ser Leu Asp Asp Arg Phe
    690                 695                 700
Arg Cys Leu Glu Glu Ser Val Ser Val Asn His Arg Val Leu Ser Glu
705                 710                 715                 720
Gln Ile Asn Thr Leu Lys Asp Ser Leu Glu Thr His Lys Ser Ile Val
                725                 730                 735
Gln Ala Leu Asp Cys Leu Pro Ala Ser Gly Met Gln Ser Leu Lys Arg
            740                 745                 750
Glu Gln Ser Pro Ser Gly Ser Asp Ala Ala Pro His Thr Asn Phe Val
        755                 760                 765
Glu Met Thr Glu Thr Asn Pro Ala Leu Ala Leu Arg Glu Lys Lys Arg
    770                 775                 780
Lys Lys Lys Arg Pro Arg Pro Pro Thr Val Ser Asp Asn Glu Asn Glu
785                 790                 795                 800
Arg Ser Ser Gly Ser Arg Asn Glu Ser Pro Met Ile Phe Ser Ser Pro
                805                 810                 815
Ala His Thr Leu Asp Asn Glu Val Ala Ser Pro Ser Glu Asn Lys Arg
            820                 825                 830
Lys Thr Lys Lys Lys Lys Lys Arg Arg Leu Ile Thr Glu Gly Pro Ile
        835                 840                 845
Thr Ile Asp
    850
```

<210> 33141
<211> 99
<212> PRT
<213> A.fumigatus

<400> 33141

```
Asn Ile Ala Trp Arg Thr Ser Trp Thr Gln Leu Arg Tyr His Ile Asn
1               5                   10                  15
Thr Ser Pro Val Leu Phe Gln Phe Val Leu Ala Ser Asp Leu Pro Asp
            20                  25                  30
Gly Pro Asp Ser Glu Val Leu Ser Phe Phe Ser Lys Arg Pro Asp Ile
        35                  40                  45
Thr Leu Arg Pro Thr Trp Tyr Ala Phe Asp Ser Leu Gln Asp Leu Gly
    50                  55                  60
Arg His Pro Phe Phe Ser Pro Glu Ile Leu Leu Leu Ser His Ile Val
65                  70                  75                  80
Ile Ser Arg Ser Ser Ser Thr Trp Leu Ser Tyr Thr Asn Ser Glu Ser
                85                  90                  95
Cys Leu Thr
```

<210> 33142
<211> 205
<212> PRT
<213> A.fumigatus

<400> 33142
Arg Ile Leu Pro Asp Val Arg Arg Ala Leu Ser Ile Met Ser Ile Ser
1 5 10 15
Gly Pro Cys Val Trp Leu Ser Ser Leu Ser Pro Pro Ala Thr Ser His
20 25 30
Leu Ser Ala Ile Thr Asn His Leu Pro Ala Thr Ser Trp Asn Ser Glu
35 40 45
Gln Val Leu Ser Arg Ser Arg Val Ser Pro Pro Arg Leu Pro Tyr Pro
50 55 60
Gly Glu Lys Gly Gly His Ser Val Gln Lys Leu Ala Val Asp Met Gln
65 70 75 80
Pro Ser Ala Val Leu Lys Ala Glu Asn Ala Leu Ser Ala Ser Thr Val
85 90 95
Val Ala Thr Ser Asn His Val Arg Ser Ser Glu Ala Glu Met Pro Pro
100 105 110
Pro Lys Glu Ala Glu Ser Arg Ser Thr Glu Glu Thr Leu Ser Arg Met
115 120 125
Arg Leu Asp Gln Leu Asn His Ser Glu Ser His Pro Ser Gly Val Ser
130 135 140
Thr Pro Ala Ser Pro Ser Val Ser Lys Ala Ala Ser Leu Glu Ala Lys
145 150 155 160
Lys Arg Pro Gln Glu Glu Thr Arg Gly Asp Glu Lys Asp Asp Gly Glu
165 170 175
Ala Met Gly Ile Ser Ser Asp Glu Gly Gly Asp Gln Lys Asn Ser Ser
180 185 190
Asp Ala Lys Thr Asp Lys Lys Lys Met Lys Arg Phe Arg
195 200 205

<210> 33143
<211> 466
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (412)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33143
Leu Asp Gly Arg Phe Gly Arg Val Pro His Gly Gly Phe Arg Cys Ala
1 5 10 15
Cys Val Ile Val Gly Gly Gly Gly Gly Gly Ala Gly Gly Ala Ala Val
20 25 30
Glu Ile His Arg Gly Pro Gly Tyr Phe Gln Cys Cys Gly Cys Arg Ser
35 40 45
Gly Met Ser Gly Ser Phe Ser Leu Gly Ile Val Gly Leu Val Gly Leu
50 55 60
Thr Val Gly Leu Phe Ser Lys Gly Leu Asp Lys Ile Asn Pro Pro Lys
65 70 75 80
Lys Arg Pro Gln Val Ala Ser Ser Leu Lys Ser Phe Ile Asn His Phe
85 90 95

```
Phe Pro Ser Val Glu Lys Val Leu Ser Val Asp Ser Arg Gln Glu Cys
            100                 105                 110
Ser Asn Val Val Arg Ser Leu Cys Thr Ala Thr Pro Lys Gly Ile Arg
        115                 120                 125
Trp Arg Asp Glu Arg Ser Trp Met Leu Val Glu Glu Val Lys Trp Pro
    130                 135                 140
Glu Ala Thr Thr Glu Val Val Asp Asp Val Val Leu Thr Gly Ile Val
145                 150                 155                 160
Arg Gly Lys Gly Leu Lys Ala Asp Arg Leu Val His Ile Pro Gly Trp
                165                 170                 175
Gly Asp Phe Gln Ile Asp Ser Ile Thr Ala Ala Pro Leu Pro Asn Ala
            180                 185                 190
Arg Ala Lys Arg Asp Asp Ala Met Asn Val Asp Glu Asn Glu Ala Pro
        195                 200                 205
Gln Val Leu Asp Val Pro Thr Ala Asp Arg Asp Asp Leu Ala Thr Val
    210                 215                 220
Ala Pro Glu Glu Ile Glu Met Glu Glu Asp Asp Ile Ser Ile Ala Glu
225                 230                 235                 240
Thr Glu Arg Lys Gly Val Leu Leu Asp Asp His His Tyr Phe Ser Asp
                245                 250                 255
Asp Asp Ser His Leu Pro Ala Arg Pro Lys Arg Leu Pro Lys Gly Thr
            260                 265                 270
Ser Glu Tyr Gln Ser Ala Trp Phe Ile Asp Asp Val Ser Asp Ser Gly
        275                 280                 285
Ser Asp Ile Glu Glu Glu Glu Glu Gln Asp Glu Ala Met Ala Met Asp
    290                 295                 300
Thr Ala Gly Asn Pro Glu Asp Gly Val Phe Pro Asp Arg Gln Asp Ala
305                 310                 315                 320
Met Thr Glu Ala Gly Pro Ser Glu Tyr Pro Gln Ser Glu Met Phe Leu
                325                 330                 335
Asp Pro Ser Pro Glu Asp Glu Ala Gln Gln Leu Glu Glu Tyr Arg Ala
            340                 345                 350
Ser Arg Arg Lys Glu Ala Ser Glu Asp Leu Glu Phe Pro Asp Glu Ile
        355                 360                 365
Glu Leu His Pro Asn Val Leu Ala Arg Glu Arg Leu Ala Arg Phe Arg
    370                 375                 380
Gly Leu Lys Asn Phe Lys Thr Ser His Trp Glu Thr Ala Glu Asp Arg
385                 390                 395                 400
Pro His Glu Pro Lys Asp Trp Arg Arg Leu Leu Xaa Ile Val Asp Tyr
                405                 410                 415
Lys Gly Ser Lys Asn Lys Thr Leu Arg Glu Ala Leu Val Gly Gly Val
            420                 425                 430
Glu Pro Gly Ile Arg Val Asp Val Pro Leu Arg Gly Val Pro Ser Ser
        435                 440                 445
Leu Arg Asn Arg Arg Gln Pro Leu Ser Leu Phe Ser Leu Leu Arg His
    450                 455                 460
Glu His
465
```

<210> 33144
<211> 167
<212> PRT
<213> A.fumigatus

<400> 33144
Ser Gly Lys Val Glu Arg Gly Thr Arg Lys Thr Pro His Gln Gln Leu

```
1               5                   10                  15
Met Ser Lys Leu Asp Arg Arg Asn Gln Ala Arg Gln Lys Gln Gln Leu
            20                  25                  30
Lys His Gln Glu Lys Ala Gln Ala Asn Ser Ile Phe Thr Gly Ala Asn
        35                  40                  45
Gly Ala Pro Arg His Val Ala Val Val Pro Leu Ser Val Asp Val Asp
    50                  55                  60
Val Ala Ala Ile Leu Arg Ser Leu Asn Glu Ser Val Asp Val Ser Ala
65                  70                  75                  80
Asp Val Ser Ala Asp Thr Ile Ser Arg Val Arg Ile Asp Arg Phe Arg
                85                  90                  95
Gln Ser Leu Gln Tyr Ile Pro Ala Lys Tyr Asp Leu Met Gly Ala Leu
            100                 105                 110
Asp Val Cys Arg Met Ala Asp Phe Val Val Leu Ala Leu Ser Ser Glu
        115                 120                 125
Val Glu Val Glu Glu Gln Gly Glu Gln Leu Leu Arg Ser Ile Glu Gly
    130                 135                 140
Gln Gly Ile Ser Asn Val Val Ala Val Val Gln Val Cys Arg Asp Pro
145                 150                 155                 160
Ser Ala Leu Gly Leu Ser Gly
                165
```

<210> 33145
<211> 263
<212> PRT
<213> A.fumigatus

<400> 33145

```
Trp Trp Ser Ser Arg Arg Thr Pro Leu Arg Ser Val Ser Ala Ile Glu
1               5                   10                  15
Ile Ser Ser Ser Ser Ile Ser Ile Ser Ser Gly Ala Thr Val Ala Arg
            20                  25                  30
Ser Ser Arg Ser Ala Val Gly Thr Ser Lys Thr Cys Gly Ala Ser Phe
        35                  40                  45
Ser Ser Thr Phe Met Ala Ser Ser Arg Phe Ala Arg Ala Phe Gly Ser
    50                  55                  60
Gly Ala Ala Val Ile Glu Ser Ile Trp Lys Ser Pro His Pro Gly Ile
65                  70                  75                  80
Trp Thr Arg Arg Ser Ala Phe Ser Pro Phe Pro Arg Thr Met Pro Val
                85                  90                  95
Lys Thr Thr Ser Ser Thr Thr Ser Val Val Ala Ser Gly His Phe Thr
            100                 105                 110
Ser Ser Thr Ser Ile Gln Leu Arg Ser Ser Arg Gln Arg Ile Pro Phe
        115                 120                 125
Gly Val Ala Val His Ser Asp Arg Thr Thr Leu Glu His Ser Cys Leu
    130                 135                 140
Glu Ser Thr Asp Arg Thr Phe Ser Thr Glu Gly Lys Lys Trp Leu Met
145                 150                 155                 160
Asn Asp Leu Arg Glu Glu Ala Thr Cys Gly Arg Phe Leu Gly Gly Leu
                165                 170                 175
Ile Leu Ser Arg Pro Leu Glu Asn Lys Pro Thr Val Ser Pro Thr Ser
            180                 185                 190
Pro Thr Ile Pro Arg Leu Lys Asp Pro Asp Ile Pro Glu Arg Gln Pro
        195                 200                 205
Gln His Trp Lys Tyr Pro Gly Pro Arg Trp Ile Ser Thr Ala Ala Pro
    210                 215                 220
```

```
Pro Ala Pro Pro Pro Pro Pro Pro Thr Ile Thr Gln Ala Gln Arg Asn
225                 230                 235                 240
Pro Pro Cys Gly Thr Arg Pro Lys Arg Pro Ser Ser His Ile Ser Gln
                245                 250                 255
Glu Tyr Thr Ala Gly Ser Val
            260
```

<210> 33146
<211> 480
<212> PRT
<213> A.fumigatus

<400> 33146

```
Glu Thr Ala Ser Leu Ala His Ser Asp Thr Ala Asp Ser Leu Ser Gly
1                   5                   10                  15
Ile Pro Gln Gly Asn Ser Ile Arg Met Met Gly Tyr Gly Gly His Gln
            20                  25                  30
Tyr His Pro Gln Arg Gln Ala Gln Gln Asn Ala His Pro Gln Gln Gln
        35                  40                  45
Gln His Leu Gln Ser Pro Ser Leu Ser Gly Ala Ala Ala His Ser Val
    50                  55                  60
His Ser Ser Asn Gly Ile Ala Ala Asn Ser Ser Leu Leu Arg Gly Gln
65                  70                  75                  80
Gln Gln Ser Asp Leu Ala Ser Asn Ser Pro Asp Leu Arg Lys Met Thr
                85                  90                  95
Pro Ser Ser Ser Ala Ser Met Val Gly Phe Thr Ala Gly Gly Gly Tyr
            100                 105                 110
Gly Thr Tyr Gly His Tyr Ala Pro Gln Gly Thr Ser Asp Leu Leu Ser
        115                 120                 125
Arg His Thr Asp Ser Val Gly Gln Leu Lys Asp Pro Tyr Leu Ser Gln
    130                 135                 140
Ile Gln Ser Leu Gln Arg Asn Met Asn Pro Met Ala Lys Leu Pro Ser
145                 150                 155                 160
Ala Pro Ser His Glu Pro Ser Ser Arg His Val Ala Thr Cys Ser Gly
                165                 170                 175
Asp Glu Tyr Phe Val Ser Ala Ala Val Ile Arg Glu Val Ala Thr Ala
            180                 185                 190
Ser Pro Ser Ala Ala Pro Ala Asp Ile Pro Tyr Ala Ser Leu Cys Asp
        195                 200                 205
Phe Ala Cys Gly Arg Val Ala His Ala Cys Asp Tyr Ser Thr Pro Ala
    210                 215                 220
Asn Ser Ala Pro Val Pro Ala Ser Ala Thr Ala Ala Ala Ala Thr Thr
225                 230                 235                 240
Val Ser Ala Ile Leu Thr Ala Asp Arg Val Ser Ala Asp Pro Gly Ala
                245                 250                 255
Ser Ile Ser Val Pro Thr Ala Ser Val Val Ser Val Pro Thr Ser Pro
            260                 265                 270
Gly Ala Gly Ile Ala Ile Pro Ala His Ala Ala Asp Leu Ser Ala Ala
        275                 280                 285
Ser Ser Ala Asp Val Ser Thr Ala Thr Ala Ser Ser Ala Val Thr Val
    290                 295                 300
Pro Gly Thr Ala Thr Ala Ala Ala Ser Val Pro Thr Val Ser Val Pro
305                 310                 315                 320
Ala Val Pro Ala Gly Ser Thr Ser Pro Thr Gly Ala Cys Thr Ala Ser
                325                 330                 335
Thr Thr Asp Pro Ser Thr Thr Asn Thr Ala Ser Thr Ala Cys Ala Ala
```

```
            340                 345                 350
Ala Asp Ser Ala Ala Gln Leu Pro Gly Ser Asp Thr Asn Pro Ala Val
        355                 360                 365
Ser Thr Thr Ala Arg Thr Ser Ser Ala Ala Ser Ile Ala Ala Thr Ser
    370                 375                 380
Pro Gly Ser Thr Ala Ser Pro Ser Thr Ser Glu Thr Val Ala Ala Ala
385                 390                 395                 400
Glu Ser Leu Arg Ser Thr Gly Thr Ala Thr Tyr Ala Ala Ala Tyr Ala
                405                 410                 415
Ala Thr Tyr Ala Ala Ser Pro Ser Pro Ala Asn Ala Ser Ala Ala Asn
            420                 425                 430
Ala Ser Val Pro Ser Ala Val Ala Ala Ser Ala Ala Thr Ala Lys Ala
        435                 440                 445
Ser Asp Ala Ile Asn Pro Thr Gly Cys Phe Glu Arg Ser Lys Thr Cys
    450                 455                 460
Tyr Ser Arg Thr Gln Lys Gly Gly Asn Glu Thr Asn Glu Glu Ala Trp
465                 470                 475                 480

<210> 33147
<211> 201
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (95),(101)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33147
Val Gly Asp Ser Pro Arg His Asn Pro Gln Thr Gln Asn Thr Ala Gln
1               5                   10                  15
Ala Ile His His Glu Thr Arg Trp His Trp Ser Ala Thr Arg Ser Ser
            20                  25                  30
Ser Gln Gly Arg Arg Gly Ser Thr Glu Ala Ser Arg Ser Arg Ser Ser
        35                  40                  45
Ser Gln Gly Arg Gly Arg Gly Ala Ser Pro Arg Ala Arg Thr Arg Thr
    50                  55                  60
Gly Thr Met Ala Trp Thr Gly Thr Gly Thr Cys Thr Trp Thr Cys Thr
65                  70                  75                  80
Trp Thr Asn Thr Cys Ser Gly Ala Gly Ser Thr Ser Gly Pro Xaa Ala
                85                  90                  95
Thr Thr Ser Ala Xaa Ala Ser Pro Gly Ser Thr Ser Asn Ser Asp Ser
            100                 105                 110
Arg Ala Ala Ser Ala Pro Ser Ser Ala Val Thr Ser Ala Ser Ala Ser
        115                 120                 125
Ala Ser Ser Ser Ser Gly Val Ser Ala Thr Ala Ser Lys Arg Ala Tyr
    130                 135                 140
Gln His Trp Gln His Cys Glu Thr Ala Ser Ala Trp Ala Thr Asn Lys
145                 150                 155                 160
Asn Ile Pro Gln Gln Gln Gln Gln Pro Ser Glu Ser His Glu Val Asp
                165                 170                 175
Pro Ala Pro Lys Asn Ala Ala Pro Pro Met Asn Gly Lys Gln Pro Arg
            180                 185                 190
Lys Lys Arg Leu Thr Ser Met Pro His
        195                 200
```

<210> 33148
<211> 756
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (665),(671)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33148

```
Ile Pro Trp Gln Asn Phe Arg Pro His Pro Ala Met Asn Pro Gln Ala
1               5                  10                  15
Ala Met Ser Pro His Ala Gln Ala Met Ser Ile Ser Ser Pro Gln Gln
            20                  25                  30
Ser Tyr Glu Arg Leu Gln Gln His Pro His Leu Gln His Arg Gln Thr
        35                  40                  45
Ser His Thr His Pro Ser Val Thr Ser Pro Ala Ala Ala Ser Pro Met
    50                  55                  60
Leu Ala Thr Thr Gln Pro Gln Gln Thr Gln His Gln Tyr Gln Gln Ala
65                  70                  75                  80
Gln Gln Gln Gln Gln Gln Pro Gln Tyr Pro Gln Ser Ser Gln Gln Thr
                85                  90                  95
Ala Tyr Gln Gln Thr Gln Ala Gln Ala Ser Pro Tyr Gln Gln His Gln
            100                 105                 110
Ser Ser Pro Phe Gln His His Gln Ala Gln Ala Ser Pro Tyr Gln His
        115                 120                 125
Thr Gln Gln Thr Tyr Gln Gln Gln Ala Gln Gln Thr Tyr Gln Gln Gln
    130                 135                 140
Gln Gln Ala Gln Gln Ser Arg Tyr Gln Ala Gln Gln Pro Gln Gln His
145                 150                 155                 160
Gln Phe Gln Gln Tyr Pro Tyr Gln Arg Tyr Gln Gln Ala Gln Gln Ala
                165                 170                 175
Gln Gln Val His Ala Gln Gln Ala Gln Gln Thr Gln Val Gln Pro Thr
            180                 185                 190
Gln Pro Ala Gln His Val Gln Gln Gln Thr Gln Gln His Asn Cys Pro
        195                 200                 205
Glu Ala Thr Gln Thr Gln Pro Ser Gln Gln Pro His Glu Gln Ala Val
    210                 215                 220
Gln Gln Ala Leu Gln Gln His Arg Gln Ala Gln Gln Gln Ala His Gln
225                 230                 235                 240
His Gln Arg Gln Ser Gln Gln Pro Ser Pro Tyr Ala Gln Gln Ala Gln
                245                 250                 255
Gln His Thr Gln Gln His Thr Gln Gln His Thr Gln Gln Ala Gln Ala
            260                 265                 270
Gln Gln Thr His Pro Gln Gln Thr His Gln Phe His Gln Gln Ser Gln
        275                 280                 285
His Gln Gln Pro Gln Gln Lys Gln Ala Thr Pro Ser Ile Gln Pro Ala
    290                 295                 300
Ala Leu Ser Gly Ala Lys Pro Ala Thr Gln Glu Pro Arg Lys Glu Glu
305                 310                 315                 320
Thr Lys Pro Thr Lys Lys Arg Gly Arg Gln Pro Lys Ala Ala Ala Ala
                325                 330                 335
Ala Ala Ala Ala Ser Ala Ser Pro Ala Ile Ala Ser Gly Lys Ile Asn
            340                 345                 350
Gly Thr Thr Gln Pro Thr Pro Ala Ala Tyr Arg Pro Glu Ala Pro Ser
```

```
        355                 360                 365
Pro Ile Gln Phe Val Pro Gln His Pro His Leu Pro Gln Thr Gln Ala
    370                 375                 380
His Ala Gln Ala His Thr Gln Thr Gln Ala Gln Ala Gln Pro Tyr Pro
385                 390                 395                 400
Gln Ala Gln Pro Gln Pro Gln Phe Gln Pro Gln Ala Gln Val Pro Asn
                405                 410                 415
Gln Leu Gln Asn Pro Thr Ala Met Gln Gly Gln Asn Gln Gly Gln Gly
            420                 425                 430
Gln Asn Gln Gly Gln Gly Gln Gly Gln Asn Gln Gly Gln Gly Gln Pro
        435                 440                 445
Gln Thr Gln Gly Gln Thr Gln Ser Gln Gln Gln Gly Pro Ala Asn Ala
    450                 455                 460
Ala Gly Ser Gly Thr Pro Gly Ala Pro Gly Ala Ser Gln Gln Pro Ala
465                 470                 475                 480
Pro Thr Pro Arg Lys Arg Gly Arg Pro Arg Lys Asn Pro Leu Pro Asp
                485                 490                 495
Gly Ala Gln Pro Pro Lys Pro Lys Pro Lys Lys Pro Ala Ser Thr Ala
            500                 505                 510
Ala Ser Ala Pro Ala Ala Ala Ala Ala Gly Gly Ala Pro Ala Gly Thr
        515                 520                 525
Ala Val Pro Gly Gln Gly Thr Asn Ala Ala Pro Gly Thr Ala Thr Ala
    530                 535                 540
Pro Gly Ala Ala Pro Val Pro Gly Pro Asp Gly Ser Val Pro Ala Val
545                 550                 555                 560
Pro Val Lys Arg Gly Arg Gly Arg Pro Arg Lys Ser Glu Thr Ala Pro
                565                 570                 575
Gly Thr Thr Pro Lys Pro Lys Thr Pro Arg Lys Pro Ser Thr Thr Lys
            580                 585                 590
Pro Gly Gly Thr Gly Arg Pro Arg Gly Arg Pro Arg Lys Ala Asp Val
        595                 600                 605
Glu Ala Arg Lys Arg Ala Glu Ala Glu Ala Gln Ala Lys Ala Glu Ala
    610                 615                 620
Glu Ala Gln Ala Gln Glu His Gly Gln Gly Gln Gly Gln Trp His Gly
625                 630                 635                 640
Gln Ala Gln Val His Ala His Gly His Ala His Gly Gln Thr Pro Val
                645                 650                 655
Gln Val Gln Val Gln Pro Pro Ala Xaa Pro Gln Pro Gln Ala Xaa Ser
            660                 665                 670
Gln Ala Pro Ala Gln Pro Gln Ile Gln Ile Pro Val Gln Pro Gln His
        675                 680                 685
Gln Val Gln Pro Ser Pro Gln Pro Gln Pro Gln His Leu His His Gln
    690                 695                 700
Ala Ser Pro Gln Leu Gln Ala Asn Ala His Thr Ser Ile Gly Asn Ile
705                 710                 715                 720
Ala Lys Pro His Gln His Gly Gln Pro Thr Lys Thr Phe His Asn Asn
                725                 730                 735
Ser Asn Asn Pro Pro Asn Pro Met Lys Leu Thr Pro Pro Pro Lys Thr
            740                 745                 750
Arg Pro Pro Gln
        755

<210> 33149
<211> 250
<212> PRT
<213> A.fumigatus
```

<400> 33149
Leu Arg Leu Arg Pro Arg Arg Pro Cys Leu Arg Leu Leu Asn Pro Ser
1 5 10 15
Lys Leu Ser Thr Ser Thr Ser Lys Arg Asn Ser Ser Ser Ser Asn His
20 25 30
Ser Ile Arg Asn Pro His Ser Arg Pro Arg Ile Ser Arg Pro Arg Arg
35 40 45
Lys His Leu Arg Thr Asn Ser Ile Ser Arg Leu Arg Ser Asn Ile Thr
50 55 60
Arg Arg Arg His Arg His Thr Ser Thr Arg Ser Arg Leu Ile Ser Ser
65 70 75 80
Lys Leu Ser Arg Arg Ile Asn Ser Asn Ser Lys Leu Ser Ser His Gly
85 90 95
Thr Arg His Ser Asn Arg Ser Ser Ile Ser Ser Asn Ser Ile Arg Thr
100 105 110
Ser Gly Thr Ser Arg Leu Asn Lys Pro Asn Arg Cys Met His Ser Lys
115 120 125
His Asn Arg Pro Lys Tyr Asn Gln His Ser Gln His Ser Met Cys Ser
130 135 140
Ser Arg Leu Ser Ser Thr Thr Ala Arg Lys Arg His Lys Pro Ser Arg
145 150 155 160
Leu Asn Asn Arg Thr Asn Lys Gln Cys Ser Lys His Cys Ser Asn Ile
165 170 175
Ala Arg Leu Asn Ser Lys Pro Ile Asn Ile Arg Asp Ser Arg Ser Ser
180 185 190
Arg Val Pro Thr Leu Asn Arg His Ser Asn Ile Arg Ser Ser Ile Arg
195 200 205
Ser Asn Ile Arg Ser Lys Pro Lys Pro Ser Lys Arg Ile Arg Ser Lys
210 215 220
Arg Ile Ser Ser Ile Ser Ser Arg Ser Ile Ser Ser His Ser Lys Ser
225 230 235 240
Lys Arg Arg His Gln Ser Asn Arg Leu Leu
245 250

<210> 33150
<211> 255
<212> PRT
<213> A.fumigatus

<400> 33150
Ala Glu Gln Asn Leu Leu Leu Lys Asn Pro Glu Arg Arg Lys Arg Asn
1 5 10 15
Gln Arg Arg Ser Val Val Asp Asn Pro Arg Pro Gln Pro Gln Pro Gln
20 25 30
Pro Leu Pro Arg Leu Leu Arg Leu Leu Gln Ala Arg Ser Thr Glu Arg
35 40 45
His Asn Gln Arg Gln Pro Pro Ile Val Pro Arg Pro His Arg Arg Ser
50 55 60
Asn Ser Tyr Leu Ser Ile His Thr Phe His Arg Leu Lys Leu Thr Leu
65 70 75 80
Arg Pro Thr Leu Arg Arg Lys Arg Arg Leu Asn Pro Ile Pro Lys Pro
85 90 95
Asn Leu Ser Pro Ser Phe Asn His Lys Leu Arg Cys Leu Thr Ser Cys
100 105 110
Arg Thr Pro Gln Leu Cys Lys Ala Arg Thr Arg Ala Lys Ala Arg Thr

```
        115                 120                 125
Lys Ala Lys Ala Arg Ala Arg Thr Arg Val Lys Ala Asn Arg Arg Pro
    130                 135                 140
Lys Ala Arg Arg Arg Val Asn Ser Arg Val Gln Arg Met Gln Arg Ala
145                 150                 155                 160
Leu Val Leu Leu Val Leu Gln Val Leu His Ser Asn Leu Leu Leu His
                165                 170                 175
Pro Gly Ser Ala Ala Val His Gly Lys Ile Pro Cys Pro Met Glu His
            180                 185                 190
Ser Leu Gln Ser Leu Ser Leu Arg Asn Pro Leu Arg Pro Leu Gln Val
        195                 200                 205
His Pro Pro Arg Pro Pro Leu Val Val Leu Arg Leu Ala Pro Pro Phe
    210                 215                 220
Leu Val Lys Glu Pro Met Leu Pro Leu Ala Gln Leu Pro Leu Gln Val
225                 230                 235                 240
Leu Pro Arg Phe Leu Val Leu Met Val Leu Ser Leu Pro Phe Leu
                245                 250                 255
```

<210> 33151
<211> 244
<212> PRT
<213> A.fumigatus

<400> 33151

```
Gln Val Leu Leu Arg Ser Lys Gln Pro Val Gly Leu Met Ala Ser Leu
1               5                   10                  15
Ala Phe Ala Val Ala Ala Asp Ala Ala Thr Ala Asp Gly Thr Asp Ala
            20                  25                  30
Phe Ala Ala Asp Ala Phe Ala Gly Leu Gly Leu Ala Ala Tyr Val Ala
        35                  40                  45
Ala Tyr Ala Ala Ala Tyr Val Ala Val Pro Val Glu Arg Arg Asp Ser
    50                  55                  60
Ala Ala Ala Thr Val Ser Asp Val Asp Gly Leu Ala Val Glu Pro Gly
65                  70                  75                  80
Asp Val Ala Ala Met Leu Ala Ala Leu Leu Val Arg Ala Val Val Glu
                85                  90                  95
Thr Ala Gly Phe Val Ser Leu Pro Gly Ser Cys Ala Ala Glu Ser Ala
            100                 105                 110
Ala Ala His Ala Val Leu Ala Val Leu Val Val Leu Gly Ser Val Val
        115                 120                 125
Leu Ala Val His Ala Pro Val Gly Leu Val Glu Pro Ala Gly Thr Ala
    130                 135                 140
Gly Thr Asp Thr Val Gly Thr Asp Ala Ala Ala Val Ala Val Pro Gly
145                 150                 155                 160
Thr Val Thr Ala Glu Leu Ala Val Ala Val Asp Thr Ser Ala Glu Leu
                165                 170                 175
Ala Ala Asp Lys Ser Ala Ala Cys Ala Gly Met Ala Met Pro Ala Pro
            180                 185                 190
Gly Asp Val Gly Thr Glu Thr Thr Asp Ala Val Gly Thr Glu Met Leu
        195                 200                 205
Ala Pro Gly Ser Ala Asp Thr Arg Ser Ala Val Arg Ile Ala Asp Thr
    210                 215                 220
Val Val Ala Ala Ala Ala Val Ala Leu Ala Gly Thr Gly Ala Glu Phe
225                 230                 235                 240
Ala Gly Val Glu
```

<210> 33152
<211> 216
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (22),(28)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33152
Arg Leu Asn Leu Val Leu Arg Leu His Gly Asn Leu Asn Leu Arg Leu
1 5 10 15
Ser Arg Gly Leu Arg Xaa Arg Leu Trp Leu Arg Xaa Gly Arg Arg Leu
20 25 30
Asn Leu His Leu Asn Arg Cys Leu Ser Met Cys Met Ser Met Cys Met
35 40 45
Tyr Leu Cys Leu Ser Met Pro Leu Ser Leu Ser Leu Ser Val Leu Leu
50 55 60
Gly Leu Arg Leu Gly Leu Gly Leu Gly Leu Ser Phe Gly Phe Gly Ser
65 70 75 80
Leu Pro Cys Phe His Val Gly Leu Ala Arg Thr Thr Ala Trp Pro Thr
85 90 95
Ser Ala Thr Gly Phe Arg Gly Gly Trp Leu Ala Arg Cys Phe Gly Phe
100 105 110
Gly Gly Cys Ala Trp Gly Cys Leu Arg Leu Thr Gly Pro Ser Ala Ala
115 120 125
Ser Leu Tyr Arg Asn Gly Arg Asp Arg Thr Ile Arg Thr Arg Asn Arg
130 135 140
Gly Ser Thr Trp Ser Gly Ser Cys Ala Arg Gly Ser Ile Gly Ser Leu
145 150 155 160
Thr Arg Asn Gly Gly Ala Ser Arg Ser Thr Thr Ser Gly Gly Arg Gly
165 170 175
Gly Cys Thr Cys Ser Gly Arg Ser Gly Phe Leu Arg Leu Arg Leu Trp
180 185 190
Arg Leu Cys Ser Ile Gly Gln Gly Ile Phe Pro Trp Thr Ala Ala Leu
195 200 205
Pro Gly Cys Arg Ser Arg Leu Leu
210 215

<210> 33153
<211> 149
<212> PRT
<213> A.fumigatus

<400> 33153
Trp Arg Arg Leu Leu Leu Leu Trp Leu Leu Met Leu Arg Leu Leu Met
1 5 10 15
Glu Leu Met Arg Leu Leu Arg Met Arg Leu Leu Gly Leu Gly Leu Leu
20 25 30
Arg Met Leu Leu Arg Met Leu Leu Arg Met Leu Leu Cys Leu Leu Ser
35 40 45
Val Gly Thr Arg Leu Leu Arg Leu Ser Leu Met Leu Met Gly Leu Leu
50 55 60
Leu Ser Leu Ala Met Leu Leu Gln Cys Leu Leu His Cys Leu Phe Val

```
65                  70                  75                  80
Arg Leu Leu Arg Arg Leu Gly Leu Cys Arg Phe Arg Ala Val Val Leu
                85                  90                  95
Leu Ser Leu Leu Leu His Met Leu Cys Trp Leu Cys Trp Leu Tyr Leu
            100                 105                 110
Gly Leu Leu Cys Leu Leu Cys Met His Leu Leu Gly Leu Leu Ser Leu
        115                 120                 125
Leu Val Pro Leu Val Arg Ile Leu Leu Glu Leu Met Leu Leu Arg Leu
    130                 135                 140
Leu Cys Leu Val Pro
145
```

<210> 33154
<211> 173
<212> PRT
<213> A.fumigatus

<400> 33154

```
Trp Arg Ile Ile Leu Ser Leu Leu Gly Gly Arg Leu Val Lys Asn Gly
1               5                   10                  15
Arg Arg Phe Leu Leu Pro Arg Asn Lys Arg Leu Lys Thr Ala Asp Gly
            20                  25                  30
Arg Ala Ser Val Lys Gln Glu Ser Gly Glu Lys Lys Tyr Leu Pro Tyr
        35                  40                  45
Pro Ala Gly Tyr Gln Gly Tyr Pro Thr Val Ala Met Ile Thr Ala Ala
    50                  55                  60
Val Asn Glu Ser Gly Ile Thr Pro Val Arg Leu Gly Glu Glu Ser Ile
65                  70                  75                  80
Ile Gln Leu Leu Glu Met Leu Cys Tyr Asp Lys Lys Leu Val Ala Leu
                85                  90                  95
Asn Asn Gly Gln Phe Tyr Lys Ser Val Lys Asn Pro Ala Ala Val Lys
            100                 105                 110
Met Glu Lys Asn Arg Lys Pro Glu Gly Asp Val Glu Asp Val Gly Asp
        115                 120                 125
Lys Leu Val Thr Asn Gly Met Thr Glu Val Pro Cys Gly Pro Cys Pro
    130                 135                 140
Val Phe Lys Leu Cys Val Pro Gly Gly Ala Val Ser Pro Glu Thr Cys
145                 150                 155                 160
Glu Tyr Phe Asp Pro Trp Leu Gln Lys Ala Leu Gly Phe
                165                 170
```

<210> 33155
<211> 69
<212> PRT
<213> A.fumigatus

<400> 33155

```
Val His Ile Gln Ile Arg Met Tyr Ala Ser Ile Leu Lys Gly Lys Phe
1               5                   10                  15
Thr Ser Cys Lys Asn Ser Phe His Phe Asp Asn Leu Ala Leu Tyr Lys
            20                  25                  30
Ser Gln Ile Val Ser Val Pro Ser Lys Ile Leu Val Leu Leu Tyr Tyr
        35                  40                  45
Leu Glu Gly Cys Leu Leu Cys His Leu Ile Ser Val Arg Gly Ala Gly
    50                  55                  60
Ile Ser Ser Thr Asp
```

65

<210> 33156
<211> 145
<212> PRT
<213> A.fumigatus

<400> 33156
Pro Ser Tyr Asp Gln Gln Gln His His Pro Gln Tyr Ser Gly Pro Pro
1 5 10 15
Pro Ser Tyr Gly Gln Gln Gly Tyr Pro Pro Gln His Gly Ala Pro His
20 25 30
Gln Gln Gly Gly Tyr Ala Gly Asp Gln Asn Tyr Gly Gln Gly Ala Pro
35 40 45
Met Asn Tyr Pro Pro His Asp Cys Gly His Ser Pro Tyr Pro Pro Gln
50 55 60
Gln Gln Gln Tyr Asn Pro Gln Gly Ala Ser Ala Ser Tyr Tyr Gly Ala
65 70 75 80
Pro His Pro Glu Gln His Gln Gln Gly Ala His Ala Pro Val Pro Val
85 90 95
Gly Gln Glu Gly Glu Arg Gly Leu Gly Ser Thr Leu Leu Gly Gly Ala
100 105 110
Ala Gly Gly Ile Ile Gly Lys Lys Leu Gly Gly Gly Leu Leu Gly Ala
115 120 125
Ala Gly Gly Ala Leu Ala Gly Ala Ala Gly Met Asn Met Ala Thr Lys
130 135 140
Met
145

<210> 33157
<211> 109
<212> PRT
<213> A.fumigatus

<400> 33157
Ala Asp Ala Glu Met Ala Pro Gln Ile Lys His Lys Ser Gly Asp Ser
1 5 10 15
Val His Ser Gln Ala Pro Gln Leu Ser Asp His Arg Arg Trp Gln Ser
20 25 30
Phe Trp Glu Trp Leu Gln Gly Gln Phe His Leu Arg Pro Pro Asp Asp
35 40 45
Asp Glu Pro Gln Asp Trp Trp Leu Ala Ser Thr Ala Val Pro Leu Val
50 55 60
Ala Ala Ala Thr Gly Pro Leu Ala Asn Val Met Ser Val Val Ala Leu
65 70 75 80
Val Met Pro Trp Arg Ser His Ile Ser Phe Asp Gln Lys Asp Ser Leu
85 90 95
Gly Asn Pro Leu Gln Val Gly Phe Ser Asp Pro Arg Trp
100 105

<210> 33158
<211> 548
<212> PRT
<213> A.fumigatus

<400> 33158

```
Leu Val Ala Ala Thr Val Ala Leu His Val Phe Ala Ser Pro Ile Ala
1               5                  10                  15
Pro Asn Glu Leu Tyr Ser Gln Ala Tyr Trp Ser Ala Val Ile Ala Ala
            20                  25                  30
Ile Leu Tyr Phe Ile Leu Ser Val Ile Leu Ile Ile Asn Met Leu Gly
        35                  40                  45
Tyr Ile Leu Gly His Tyr Pro Gln Tyr Phe Ala Leu Thr Asp Gly Gln
    50                  55                  60
Arg Thr Leu Ile Leu Gln Thr Leu Ser Phe Val Ile Trp Leu Leu Ile
65                  70                  75                  80
Gly Ala Val Ile Phe Ser Arg Val Ile Asp Ile Ser Phe Ala Asp Ala
                85                  90                  95
Leu Tyr Phe Ser Asp Val Thr Ile Leu Thr Val Gly Phe Gly Asp Ile
            100                 105                 110
Ala Pro Thr Asn Ala Ile Gly Arg Gly Ile Leu Phe Pro Tyr Ala Val
        115                 120                 125
Met Gly Ile Ile Met Leu Gly Leu Val Val Gly Ser Ile His Gln Phe
    130                 135                 140
Ala Lys Asp Leu Gln Tyr Asp Asn Val Ile Arg Lys His Ile Glu Arg
145                 150                 155                 160
Lys Arg Leu Ala Thr Ile Arg Arg Ala Thr Thr Leu Glu Lys Lys Cys
                165                 170                 175
Thr Gly Pro Ala Glu Asn Gly Ala His Thr Ser Gly Ser Gly Thr Ala
            180                 185                 190
Gln Ile Gly Tyr Arg Pro His Tyr Ser Arg Glu His Pro Ile Ile Ser
        195                 200                 205
Ser Ile Ser Ser Trp Thr Gln Gly Leu Ala Gly Arg Ser Lys Leu Ile
    210                 215                 220
Leu Met Lys Glu Glu Lys Asp Arg Phe Gly Ala Met Arg Ala Ile Gln
225                 230                 235                 240
Lys Glu Thr Ile Ile Phe Arg Arg Thr Tyr Asn Leu Leu Leu Ser Ile
                245                 250                 255
Ala Ile Phe Gly Ile Val Trp Thr Cys Gly Ala Val Val Phe Trp Gln
            260                 265                 270
Leu Asp Glu Asp Leu Ser Tyr Phe Asn Ala Leu Tyr Phe Gly Phe Cys
        275                 280                 285
Ser Leu Ile Thr Val Gly Tyr Gly Asp Phe Thr Pro Thr Thr Asn Ala
    290                 295                 300
Ala Lys Pro Phe Phe Val Val Trp Ser Leu Ile Ala Val Pro Thr Met
305                 310                 315                 320
Thr Thr Leu Ile Ser Glu Met Ser Asp Thr Val Val Ala Trp Phe Lys
                325                 330                 335
Asn Ala Thr Asp Lys Val Ala Asp Trp Thr Val Leu Pro Gln Ser Ser
            340                 345                 350
Lys Tyr Gln Ala Phe Leu Gln Arg Leu Pro Val Ile Tyr Ser Ala Leu
        355                 360                 365
Glu Arg Arg Ala Glu Lys Lys Arg Val Ala Gln Gly Phe Pro Ile Gly
    370                 375                 380
Asp Leu Glu Pro Gly Gln Pro Gln Asn Asp Ala Ala Asp Phe Ser His
385                 390                 395                 400
Arg Pro Arg Pro Leu Glu Asp Leu Ala Arg Asp Ser Asn Pro Ser Arg
                405                 410                 415
Gln Asp Leu Ala Gln Gln Leu Ala Phe Ala Ile Arg Arg Thr Ala Arg
            420                 425                 430
His Ala Leu Ala Arg Arg Pro Lys His Tyr Ser Tyr Glu Glu Trp Val
        435                 440                 445
```

```
Glu Phe Thr Arg Leu Ile Arg Phe Thr Asp Asn Ser Pro Glu Gly Val
    450                 455                 460
Val Leu Asp Glu Asp Glu Tyr Gly Val Leu Asn Trp Asp Trp Ile Gly
465                 470                 475                 480
Glu Thr Ser Pro Met Leu Ala Ser Gln Thr Glu Pro Glu Trp Ile Leu
                485                 490                 495
Asp Arg Leu Cys Glu Ser Val Ile Arg Tyr Val Asp Gly Gln Gly Arg
            500                 505                 510
Arg Gln Pro Ser Asp Gln Asp Val Lys Pro Leu Ser Val Ala Asn Gly
        515                 520                 525
Asp Glu Asp Val Glu Glu Pro Thr Leu Arg Lys Glu Arg Asp Ile Arg
    530                 535                 540
Phe Glu Asp Asp
545
```

<210> 33159
<211> 146
<212> PRT
<213> A.fumigatus

```
<400> 33159
Leu Lys Lys Tyr Tyr Ser Leu Leu Met Trp Leu Leu Thr Arg Thr Thr
1               5                   10                  15
Ala Gln Arg Asn Asn His His Pro Gln Asn Leu Glu Leu Thr Ser His
            20                  25                  30
His Leu Pro Gln Val Thr Gln His His Ala Leu Gln Leu Leu Pro Pro
        35                  40                  45
Pro Pro Lys Thr Gln Ala Ser Arg His Asn Ala Pro Pro His Pro Pro
    50                  55                  60
Asn Arg Pro Phe Pro Leu Pro Pro Val Ser Asp Leu Gln Thr Ala Lys
65                  70                  75                  80
Pro Pro His Pro Leu Pro Pro Thr Pro Leu Pro Arg Arg Pro Leu Pro
                85                  90                  95
Arg Pro Ala Pro Gln Pro Gln Glu Ala Arg Gly Ala Asp His Arg Arg
            100                 105                 110
Cys Pro Leu Ala Ile Tyr Thr Ala Asp Ser Ser Asn Ala Lys Gly Ala
        115                 120                 125
Gln Arg Ile Arg Asp Val Leu Cys Asp Trp Val Ala Asp Gly Arg Gly
    130                 135                 140
Arg Ala
145
```

<210> 33160
<211> 263
<212> PRT
<213> A.fumigatus

```
<400> 33160
His Asn Thr Met Leu Tyr Ser Cys Tyr Arg Arg Arg Arg Lys Leu Lys
1               5                   10                  15
Arg Leu Val Ile Met Leu Leu Pro Ile Leu Leu Thr Ala Leu Phe Leu
            20                  25                  30
Ser Pro Leu Tyr Leu Ile Tyr Lys Pro Pro Ser Leu Leu Ile Arg Tyr
        35                  40                  45
Leu Gln His Arg Tyr Pro Asp Val Leu Phe His Val Pro Arg Pro Ser
    50                  55                  60
```

```
His Lys Lys Leu Val Ala Leu Thr Ile Asp Asp Ala Pro Ser Gln Tyr
65                  70                  75                  80
Thr Pro Gln Ile Ala Ala Thr Leu Lys Ala His Ser Ala Ser Ala Thr
                85                  90                  95
Phe Phe Val Ile Gly Ser Gln Met Asp Gly Asp Gly Arg Glu Ala Val
            100                 105                 110
Leu Ala Asp Leu Val Arg Ala Gly His Glu Leu Gly Asn His Ala Met
        115                 120                 125
Arg Asp Glu Pro Ser Arg Ala Leu Ser Asp Glu Glu Leu Ser Ala Gln
    130                 135                 140
Ile Ala Glu Val Gln Ala Arg Ile Ser Arg Val Tyr Ala Arg Ala Gly
145                 150                 155                 160
Val Glu Glu Pro Arg Leu Arg Trp Phe Arg Pro Gly Ser Gly Phe Phe
                165                 170                 175
Ser Glu Arg Met Arg Arg Leu Val Gly Gly Met Gly Leu Arg Ile Ala
            180                 185                 190
Leu Gly Ser Val Tyr Pro His Asp Pro Gln Val Pro Tyr Ala Trp Met
        195                 200                 205
Asn Ala Ala His Ile Leu Ser Met Val Arg Pro Gly Ser Val Ile Ile
    210                 215                 220
Cys His Asp Arg Arg Ser Trp Thr Val Pro Met Leu Gly Arg Val Leu
225                 230                 235                 240
Pro Glu Leu Arg Lys Arg Gly Tyr Arg Val Val Thr Leu Ser Glu Leu
                245                 250                 255
Val Lys Asp Ala Glu Asn Ser
            260
```

<210> 33161
<211> 255
<212> PRT
<213> A.fumigatus

<400> 33161

```
Thr Cys Tyr Gln Gln Ile Thr Arg Pro Pro Pro Gly Ser Lys Pro Ser
1               5                   10                  15
Thr Glu Pro Phe Phe Thr Asn His Phe Cys Thr Arg Ile Ile Asp Pro
            20                  25                  30
Glu Thr Gly Met Tyr Leu Pro Lys Phe Asn Val Cys Ala Ala Cys Ile
        35                  40                  45
Arg Asn Leu Arg Ile Leu Met Pro Gln His Arg Glu Thr Phe Thr Arg
    50                  55                  60
Ser Ala Thr Met Gln Glu Gln Val Cys Asp Phe Val Ala Asp Ser Pro
65                  70                  75                  80
Arg Phe Val Gln Tyr Ile Asp Leu Leu Asp Ile Ala Ala Asn Arg Ala
                85                  90                  95
Glu Leu Glu Arg Ser Pro Arg Pro Asp Met Thr Ala Phe Leu Ala Tyr
            100                 105                 110
Ala Arg Arg Lys Val Val Leu Arg Asp Cys Arg Arg Asp Arg Pro Val
        115                 120                 125
Leu Gly Thr Trp Tyr Tyr Met Pro Gln Leu Pro Glu Phe Thr Val Cys
    130                 135                 140
Glu Asp Cys Tyr Asp Asp Val Val Trp Pro Leu Val Lys Ala Asn Lys
145                 150                 155                 160
Pro Ile Ala Arg Gln Phe Leu Thr Arg Met Arg Leu Ala Pro Gly Asp
                165                 170                 175
Ala Pro Thr Arg Cys Arg Glu Ala Ser Cys Gln Leu Tyr Ser Pro Arg
```

```
            180                 185                 190
Ile Arg Ala Lys Phe Arg Asp Ala Val Gln Arg Asn Asp Leu Ala Tyr
        195                 200                 205
Leu Lys Leu Ile Ala Leu Lys Arg Tyr Asp Val Glu Gln His Ile Arg
    210                 215                 220
Glu Arg Arg Glu Glu Leu Leu Glu Glu Glu Ser Lys Gly Tyr Asp Cys
225                 230                 235                 240
Asp Ala Glu Leu Arg Lys Thr Leu Leu Glu Trp Arg Arg Trp Glu
                245                 250                 255
```

<210> 33162
<211> 137
<212> PRT
<213> A.fumigatus

<400> 33162

```
Asn His Arg Ala Met Ser Ala Ala Arg Ala Lys Leu Ala Glu Leu Arg
1               5                   10                  15
Ala Leu Arg Ala Ala Gly Lys Lys Arg Leu Ser Thr Tyr Glu Ile Glu
            20                  25                  30
Glu Gln Asp Asp Ile Phe Glu Glu Val Asp Asp Glu Gly Tyr Lys Lys
        35                  40                  45
Ile Ile Arg Asp Arg Leu Asp Gln Asp Asp Phe Val Val Asp Asp Asn
    50                  55                  60
Gly Glu Gly Tyr Ala Asp Asp Gly Arg Glu Val Trp Asn Glu Arg Val
65                  70                  75                  80
Ala Asp Tyr Asn Ser Glu Ser Asp Asp Glu Glu Leu Pro Gly Arg Asn
                85                  90                  95
Lys Ala Ala Lys Arg Lys Arg Glu Glu Asp Lys Gln Arg Lys Glu Arg
            100                 105                 110
Ile Asn Asn Gly Ile Ser Lys Tyr Phe Asn Thr Gly Pro Ala Ala Ser
        115                 120                 125
Ala Pro Lys Pro Lys Val Ser Leu Ile
    130                 135
```

<210> 33163
<211> 548
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (511)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33163

```
Pro Val Val Thr Ala Glu Asp Glu Ala Phe Met Ala Asp Leu Leu Gly
1               5                   10                  15
Glu Val Asp Thr Asn Val Val Ala Asn His Val Pro Ile Gln Asn Val
            20                  25                  30
Ile Lys Ser Glu Thr Arg Arg Lys Val Arg Ile Leu Ser Pro Pro Leu
        35                  40                  45
Ala Ser Lys Pro Arg Asn Glu Arg Ile Ser Gly Lys Asp Glu Asn Ser
    50                  55                  60
Glu Pro Val Ser Gln Val Asn Gln Ala Pro Asp Leu Glu Phe Glu Asp
65                  70                  75                  80
```

```
Asp Asp Gly Pro Leu Pro Thr Met Asp Asp Gly Asp Val Ala Met Ser
                85                  90                  95
Asp Pro Met Pro Ser Ser Pro Ile Ser Lys Val Val Glu Arg Lys Ser
            100                 105                 110
Asn Val Asn Val Lys Lys Glu Glu Ser Asp Glu Glu Asp Asn Asp Leu
        115                 120                 125
Met Glu Ile Ala Pro Ala Thr Gly Gln Ser Glu Ala Lys Met Thr Ser
    130                 135                 140
Val Asn Met Ala Gly Ser Arg Pro Pro Pro Lys Ile Lys Lys Glu Asn
145                 150                 155                 160
Tyr Thr Thr Pro Ala Ser Ser Ser Pro Ala Lys Ala Pro Val Asp Val
                165                 170                 175
Leu Asn Ala Ser Trp Asn Asp Val Arg Ser Lys Leu Asn Val Leu Ser
            180                 185                 190
Ser Pro Ala Thr Glu Ser Arg Thr Phe Gly Lys Leu Arg Ala Gln Asp
        195                 200                 205
Val Ile Glu Glu Asp Gly Ser Leu Arg Met Phe Trp Leu Asp Tyr Thr
    210                 215                 220
Glu Val Asn Gly Ser Leu Cys Leu Phe Gly Lys Val Lys Asn Lys His
225                 230                 235                 240
Thr Gly Ser His Val Ser Ala Phe Val Lys Ile Asp Asn Ile Leu Arg
                245                 250                 255
Lys Leu Phe Phe Leu Pro Arg Glu Tyr Arg Tyr Lys His Gly Arg Val
            260                 265                 270
Thr Asp Glu Glu Val Asp Met Lys Asp Val Tyr Gly Glu Val Asp Glu
        275                 280                 285
Ile Met Ser Arg Leu Lys Val Gly Met His Lys Ile Lys Pro Cys Thr
    290                 295                 300
Arg Lys Tyr Ala Phe Glu Leu Pro Asp Ile Pro Lys Glu Ala Glu Tyr
305                 310                 315                 320
Leu Lys Leu Leu Tyr Pro Tyr Asp Lys Pro Ala Leu Pro Met Glu Thr
                325                 330                 335
Lys Gly Glu Thr Phe Ser His Val Phe Gly Thr Asn Thr Ser Leu Phe
            340                 345                 350
Glu Gln Phe Val Leu Trp Arg Asn Val Met Gly Pro Cys Trp Leu Lys
        355                 360                 365
Ile Glu Asp Ala Asp Phe Thr Ala Val Ser Asn Ala Ser Trp Cys Lys
    370                 375                 380
Phe Glu Cys Gln Val Ala Arg Pro Ala Cys Ile Thr Pro Val Pro Asp
385                 390                 395                 400
Thr Gly Asn Leu Glu Pro Pro Pro Leu Thr Leu Met Ser Leu Ala Phe
                405                 410                 415
Arg Thr Gln Leu Asn Val Lys Glu Asn Lys Gln Glu Ile Leu Val Ala
            420                 425                 430
Ser Ala Arg Val Tyr Glu Asn Val Ser Leu Thr Asp Thr Thr Pro Pro
        435                 440                 445
Glu Lys Leu Pro Cys Lys Thr Phe Thr Val Met Arg Pro Val Gly Ser
    450                 455                 460
Ser Tyr Pro Leu His Phe Glu Ala Glu Thr Arg Lys Gln Arg Gly Thr
465                 470                 475                 480
Phe Met Leu Glu Lys Ser Glu Gln Phe Leu Leu Ser Lys Phe Leu Ala
                485                 490                 495
Leu Phe Glu Lys Met Asp Pro Asp Val Leu Met Gly His Gln Xaa Gln
            500                 505                 510
Glu Val Asp Leu Ser Ile Phe Leu Ser Arg Leu Lys Glu Lys Lys Thr
        515                 520                 525
```

```
Pro Gly Trp His Arg Ile Gly Arg Leu Val Phe Thr Thr Gly Leu Glu
    530                 535                 540
Gly Thr Ala Ile
545
```

<210> 33164
<211> 64
<212> PRT
<213> A.fumigatus

<400> 33164

```
Arg Trp Ile Cys Gly Trp Lys Lys Glu Lys Asn Tyr Ile Gln Cys Leu
1               5                   10                  15
Asn Tyr Tyr Lys Gln Arg Lys Arg Lys Thr His Asp Phe Leu Pro Ser
            20                  25                  30
Trp Ile Ser Phe Ile Ser Ile His Glu Ala Phe Ser Leu Phe Thr Leu
        35                  40                  45
Phe Leu Ser His His Leu Leu Phe Ser Leu Phe Phe Tyr Thr Thr Phe
    50                  55                  60
```

<210> 33165
<211> 101
<212> PRT
<213> A.fumigatus

<400> 33165

```
Phe Leu Ile Phe Asn Ile Asn Tyr Ser Leu Glu Tyr Lys Ile Thr Ser
1               5                   10                  15
Leu Ile His Gln Leu Leu Tyr Thr Ile Lys Tyr Ile Tyr Leu Ile Gly
            20                  25                  30
Leu Ala Ser Ile Ser Thr Val Ile Ile Leu Val Leu Ser Leu Val Val
        35                  40                  45
Phe Asn Pro Trp Leu Gly His Tyr Ile Thr Val Leu Ser Gly Tyr Leu
    50                  55                  60
Val Asn Arg Pro Gln Ala Ser Ile Arg Tyr Ser Leu Gly Thr Ile Ser
65                  70                  75                  80
Pro His Ser Gln Ser Ser Arg Leu Ala Glu Asn Ser Arg Asp Gly Ser
                85                  90                  95
Gln Gly Val Thr Asn
            100
```

<210> 33166
<211> 92
<212> PRT
<213> A.fumigatus

<400> 33166

```
Leu Ala Ala Lys Ser Val Lys Ile Arg Leu Pro Lys Pro Phe Asp Gly
1               5                   10                  15
Thr Gln Thr Arg Leu Gln Ser Phe Leu Thr Gln Leu Asp Thr Tyr Ile
            20                  25                  30
Gln Val Asn Lys Glu Lys Leu Thr Asn Glu Ala Asp Lys Val Leu Phe
        35                  40                  45
Ala Thr Thr Tyr Leu Thr Gly Pro Ala Phe Asn Trp Phe Glu Pro Phe
    50                  55                  60
Ile Arg Asp Tyr Gln Thr Asn Thr Val Lys Lys Gln Asp Asp Asn Thr
```

65 70 75 80
Lys Glu Ile Phe Ala Ser Tyr Ala Glu Phe Lys Lys
85 90

<210> 33167
<211> 64
<212> PRT
<213> A.fumigatus

<400> 33167
Ile Gln Ala Thr Lys Glu Leu Ser Thr Thr Ala Gly Arg Asp Gly Tyr
1 5 10 15
Asn Thr Thr Ser Ile Ile Thr Pro Lys Lys Val Asp Lys Gln Leu Arg
20 25 30
Lys Leu Tyr Lys Glu Tyr Met Asn Leu Ser Asp Lys Glu Ile Lys Glu
35 40 45
Glu Leu Glu Lys Glu Asp Pro Thr Asn Tyr Glu Ser Thr Asn Asn Asp
50 55 60

<210> 33168
<211> 88
<212> PRT
<213> A.fumigatus

<400> 33168
Phe Leu Ser Tyr Gly Ile Pro Asn Thr Thr Ser Tyr His Pro Val Gly
1 5 10 15
Ile Ile Leu Lys Phe Arg Cys Leu Ile Cys Pro Asn Ile Thr Ile Arg
20 25 30
Thr Ser Pro Asp Ser Val Met Ile Glu Arg Val Pro Lys Phe Ser Leu
35 40 45
Phe Arg Pro Ile Ile Ser Ser Gly Thr Ala Phe Ile Phe Pro Arg Ile
50 55 60
Pro Ser Phe Leu Ile Lys Thr Gly Phe Ile Lys Leu Pro Ile Thr Pro
65 70 75 80
Glu Leu Ile Ile Thr Ser Ala Asn
85

<210> 33169
<211> 221
<212> PRT
<213> A.fumigatus

<400> 33169
Arg Val Asp Thr Ser Ser Gly Asp Pro Gly Pro Glu Gln Asp Asp Gln
1 5 10 15
Phe Ile Leu Asp Asp Tyr Asp Ser Asp Ala Asp Glu Arg Met Ala Ser
20 25 30
Ser Lys Lys Leu Ser Asp Ile Ser Gly Leu Ser Thr Ser Thr Leu Glu
35 40 45
Leu Leu Glu Arg Phe Lys Glu Gln Phe Ser Ala Pro Val Glu Asp Glu
50 55 60
Ile Gly His Glu Asp Asp Asp Val Lys Ile Phe Tyr Cys Ser Arg Thr
65 70 75 80
His Ser Gln Leu Ser Gln Phe Ser Ser Glu Leu Arg Arg Val Lys Met
85 90 95

```
Pro Ser Ser Met Pro Ala Glu Leu Ser Thr Ser Asp Ala Asn Thr Asp
            100                 105                 110
Asp Val Gln Glu Arg Val Lys His Leu Thr Leu Gly Ser Arg Lys Asn
        115                 120                 125
Leu Cys Ile Asn Pro Lys Val Met Ser Leu Gly Asn Ala Ala Ala Ile
    130                 135                 140
Asn Glu Arg Cys Leu Glu Leu Gln Gln Pro Gly Ile Ala Ala Glu Lys
145                 150                 155                 160
Arg Cys Pro Tyr Leu Pro Ser Lys Glu Asp Glu Gly Gln Ile Leu Gln
                165                 170                 175
Phe Arg Asp His Thr Leu Ala Thr Ile Lys Asp Ile Glu Asp Met Gly
            180                 185                 190
Lys Leu Gly Lys Arg Met Gly Ile Cys Pro Tyr Tyr Ala Ser Arg Ser
        195                 200                 205
Val Leu Lys His Ser Glu Val Cys Phe Gly Tyr Ala Phe
    210                 215                 220
```

<210> 33170
<211> 198
<212> PRT
<213> A.fumigatus

```
<400> 33170
Thr Ser Gln Asn Val Leu Leu Lys Ala Gln Lys Ile Val Thr Leu Pro
1               5                   10                  15
Tyr Pro Leu Leu Leu Gln Arg Ser Ala Arg Asp Ala Leu Asp Leu Ser
            20                  25                  30
Ile Lys Asn His Val Val Ile Ile Asp Glu Ala His Asn Leu Met Asp
        35                  40                  45
Ala Ile Cys Asn Ile His Ser Val Thr Ile Arg Leu Ser Gln Leu Gln
    50                  55                  60
Thr Ala Leu Leu Gln Leu Thr Thr Tyr Ala His Lys His Lys Ala Arg
65                  70                  75                  80
Leu Lys Gly Lys Asn Arg Ser Tyr Ile Ala Gln Ile Ile Arg Leu Val
                85                  90                  95
Ser Ser Ile Arg Asp His Leu Arg Ser Ile Leu Gly Gln Asn Leu Pro
            100                 105                 110
Ala Glu Gly Thr Val Asp Pro Ser Asp Leu Met Ala Gly Lys Gly Val
        115                 120                 125
Asp Gln Ile Asn Pro Tyr Lys Leu Ser Arg Tyr Leu Gln Glu Ser Lys
    130                 135                 140
Leu Ala Arg Lys Val Asp Gly Tyr Val Glu Phe Leu Lys Asn Lys Asn
145                 150                 155                 160
Gln Gln Ser Asp Asp Lys Pro Ser Ser Pro Val Leu Phe Leu Val Gln
                165                 170                 175
Ser Phe Leu Leu Ser Leu Met Asn Pro Ser Pro Arg Arg Pro Ile Phe
            180                 185                 190
Leu Ser Lys Val Pro Arg
        195
```

<210> 33171
<211> 73
<212> PRT
<213> A.fumigatus

<400> 33171

```
Met Ser Asp Tyr Arg Asn His Leu Phe Ser Tyr Ile Ala Pro Ser Arg
1               5                  10                  15
Leu Asp Thr Phe Ser Tyr Gly His Val Ile Pro Pro Glu Asn Leu Ile
            20                  25                  30
Ala His Thr Leu Val Asn Gly Val Leu Gly Ser Glu Phe Asp Phe Thr
        35                  40                  45
Tyr Asp Ser Arg Asp Ser Glu Lys Met Val Arg Asp Gly Phe Leu Ala
    50                  55                  60
Arg Gly Tyr Leu Asn Phe Gly Thr Phe
65                  70
```

<210> 33172
<211> 78
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (19)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 33172
Tyr Thr Lys Val Asn Leu Val Lys Arg Val Thr Gly Gly Thr Ser Ser
1               5                  10                  15
Ile Met Xaa Ser Gln Leu Gln Asn Phe Asn His Pro Tyr Ser Pro Tyr
            20                  25                  30
Asp Ile Gln Leu Gln Phe Met Arg Ala Leu Tyr Thr Cys Leu Glu Glu
        35                  40                  45
Gly Lys Val Ala Val Phe Glu Ser Pro Thr Gly Lys Phe Ser Phe Thr
    50                  55                  60
Cys Arg Leu Val Pro Ala Thr Asn His Met Leu Gln Ala Arg
65                  70                  75
```

<210> 33173
<211> 92
<212> PRT
<213> A.fumigatus

```
<400> 33173
Ile Leu Asp Leu Gly Arg Thr Val Ala Thr Leu Cys Gln Ala Ile Pro
1               5                  10                  15
Asp Gly Val Val Ala Phe Phe Pro Ser Tyr Asp Tyr Leu Ser Arg Ile
            20                  25                  30
Val Ala Ile Trp Arg Lys Pro Leu Glu Gly Glu Lys Gly Glu Thr Ile
        35                  40                  45
Leu Ser Leu Ile Glu Arg Glu Lys Ser Ile Leu Tyr Glu Gly Arg Asp
    50                  55                  60
Met Gly Pro Lys Thr Asp Asp Leu Leu Gln Glu Tyr Thr Arg Thr Ser
65                  70                  75                  80
Leu His His Gly Ala Gly Arg Ser Ser Ala Ser Gln
                85                  90
```

<210> 33174
<211> 140
<212> PRT
<213> A.fumigatus

<400> 33174
Ala Met Pro Pro Ala Pro Pro Ala Ala Ser Ser Tyr Pro Gln Ser Pro
1 5 10 15
Ala Arg Ile Cys Cys Pro Pro Arg Pro Ala Ala Pro Asp Pro Ser Thr
20 25 30
Thr Lys Lys Thr Thr Asp Ser Phe Leu Ser Pro Pro Ala Ser Ser Thr
35 40 45
Pro Thr Arg Thr Leu Gln Pro Pro Pro Val Pro Glu Thr Asp Thr Ser
50 55 60
Leu Gln Pro Ser His Ser Arg Thr Thr Arg Ala Ser Ser Ala Gly Asn
65 70 75 80
Ala Pro Pro Pro Pro Pro Ala Leu Ala Pro Ala Pro Pro Phe Ser Leu
85 90 95
Leu Ser Ser Val Arg Val Gly Gly Arg Ser Leu Arg Arg Leu Leu Gln
100 105 110
Gly Cys Trp Pro Pro Pro Leu Pro Leu Ser Leu Asn Trp Asp Gly Gly
115 120 125
Ser Arg Gln Ile Thr Arg Arg Met Pro Arg Ser Gly
130 135 140

<210> 33175
<211> 316
<212> PRT
<213> A.fumigatus

<400> 33175
Lys Ala Val Asp Gly Arg Ser Gly Tyr Thr Thr Leu Pro Leu Leu Arg
1 5 10 15
Leu Glu Ala Tyr Leu Ser Ser Ala Ala Arg His Pro Ser His Arg Pro
20 25 30
Leu Arg Lys Glu Asp Leu Pro Arg Phe Lys Gly Met Glu Ser Phe Lys
35 40 45
Gly Asp Arg Leu Cys His Ser Ser Asp Phe Thr Glu Ala Asn Pro Ala
50 55 60
Ser Lys Gly Lys Lys Ala Val Val Val Gly Ser Gly Asn Ser Gly His
65 70 75 80
Asp Ile Ala Gln Glu Phe Tyr Glu Lys Gly Tyr Asp Val Ser Met Val
85 90 95
Gln Arg Ser Thr Thr Cys Val Ile Ser Ser Glu Ser Ile Val Glu Ile
100 105 110
Gly Leu Lys Ser Leu Tyr Gly Glu Gly Gly Pro Pro Thr Glu Asp Ser
115 120 125
Asp Leu Tyr Leu Trp Ser Ile Pro Thr Glu Leu Phe Lys Ala Gln Gln
130 135 140
Ile Lys Val Thr Ala Ala Gln Asn Gln Arg Asp Ala Ala Ile Leu Gln
145 150 155 160
Ala Leu Asp Lys Ala Gly Phe Lys Leu Asp Met Gly Ser Asp Asn Ala
165 170 175
Gly Leu Leu Met Lys Tyr Leu Ser Arg Gly Gly Gly Tyr Tyr Ile Asp
180 185 190
Val Gly Gly Ser Arg Leu Ile Ala Asp Gly Lys Ile Lys Val Lys Gln
195 200 205
Gly Gln Glu Ile Thr Glu Val Leu Pro His Gly Leu Gln Phe Ala Asp
210 215 220
Gly Thr Gln Leu Glu Ala Asp Glu Ile Val Phe Ala Thr Gly Tyr Gln

225 230 235 240
Asn Met Lys Thr Gln Ala Arg Ala Ile Phe Gly Asp Glu Val Ala Asp
245 250 255
Arg Ile Asp Ser Val Trp Gly Phe Asn Glu Glu Gly Glu Met Arg Thr
260 265 270
Ile Trp Arg Gln Ser Gly His Pro Gly Phe Trp Phe Met Gly Gly Asn
275 280 285
Leu Ala Leu Cys Arg Tyr Tyr Ser Arg Leu Leu Ala Leu Gln Ile Lys
290 295 300
Ala Leu Val Glu Gly Ile Thr Thr His Gly Ala Lys
305 310 315

<210> 33176
<211> 221
<212> PRT
<213> A.fumigatus

<400> 33176
Thr Gly Pro Met Thr Val Pro Ile Thr Asp His Pro Ser Lys Asp Arg
1 5 10 15
Ile Ala Pro Gly Ser Val Asn Val Pro Val Gly Lys Phe Pro Gln Thr
20 25 30
Ala Ser Ser Thr Ser Val Asp Ala Ala Lys Leu Ala Ser Glu Ala Ile
35 40 45
Asp Gln Leu Asn Ser Ala Leu Lys Gln Lys Asn Tyr Lys Ala Val Ser
50 55 60
Asp Leu Phe Leu Glu Asp Ala Tyr Trp Arg Asp His Leu Gly Leu Ser
65 70 75 80
Trp Asp Tyr Arg Thr Ile Lys Gly Arg Glu Asn Ile Ala Ser Phe Leu
85 90 95
Glu His Ser Thr Arg Leu Val Gln Val Glu Ile Asp Gln Ser Ser Pro
100 105 110
Phe Arg Ala Pro His Val Gly Pro Ile Asp Ala Phe Gly Asp Val Thr
115 120 125
Gly Val Glu Phe Phe Thr Thr Phe Ala Asn Asp Val Gly Asn Gly Arg
130 135 140
Gly Val Val Arg Met Ala Glu Lys Asp Gly Val Trp Lys Ile Phe Thr
145 150 155 160
Ile Phe Thr Thr Leu Gln Glu Leu Lys Gly His Asp Glu Ala Val Asn
165 170 175
Ala Ser Arg Pro Leu Gly Val Gln His Gly Ala Gln Val Gly Ile Lys
180 185 190
Asn Trp His Asp Met Met Thr Ser Asp Phe Glu Phe Glu Glu Lys Thr
195 200 205
Pro Val Val Leu Val Val Gly Met Ser Pro Phe Leu Asp
210 215 220

<210> 33177
<211> 123
<212> PRT
<213> A.fumigatus

<400> 33177
Gln Asp Leu Val Leu Thr Trp Lys Gly Ala Gly Gln Ser Gly Leu Thr
1 5 10 15
Val Ala Ala Arg Leu Lys Met Leu Asn Val Asp Thr Leu Val Ile Asp

```
            20                  25                  30
Glu Glu Asp Arg Ile Gly Asp Asn Trp Arg Arg Arg Tyr His Gln Leu
        35                  40                  45
Val Leu His Asp Pro Val Trp Phe Asp His Met Pro Tyr Leu Pro Phe
    50                  55                  60
Pro Ser Ser Trp Pro Val Phe Thr Pro Asn Asp Lys Leu Ala Glu Phe
65                  70                  75                  80
Phe Glu Ala Tyr Ala Lys Leu Leu Glu Leu Asn Val Trp Thr Arg Thr
                85                  90                  95
Thr Leu Lys Ser Ser Ser Trp Asn His Asp Lys Lys Gln Trp Thr Val
            100                 105                 110
Val Leu Asp Ile Leu Leu Ser His Cys Ser Val
        115                 120
```

<210> 33178
<211> 66
<212> PRT
<213> A.fumigatus

<400> 33178

```
Thr Pro Ser Ser Gly Thr Tyr Pro Leu Lys Pro Cys Gln Val Leu Gln
1               5                   10                  15
Met Leu Asp Glu Ser Lys Val Ile Pro Pro Tyr Tyr Ile Ser Ser Ala
            20                  25                  30
Leu Ala Ala Ala Met Thr His Met Val Ile Leu Leu Lys Gln Asn Gly
        35                  40                  45
Pro Tyr Gln Gln Asp Lys Ser Glu Thr Ile Glu Gly Ser Ile Gly Thr
    50                  55                  60
Met Lys
65
```

<210> 33179
<211> 182
<212> PRT
<213> A.fumigatus

<400> 33179

```
Pro Leu Pro Leu Lys Ala Glu Pro His Val Asn Glu Gln Ala Pro Gln
1               5                   10                  15
Ser Leu His Asp Pro Thr Val Tyr Thr Arg His Gln His Pro Val Arg
            20                  25                  30
Leu Ala Arg Gly Pro Phe Pro Arg Arg Asp Ser Asp Pro Asn Pro Pro
        35                  40                  45
Ala Gly Gly Lys Val Ala Gly Pro Arg Glu Ala Asp Pro Ile Gln Gln
    50                  55                  60
Arg Ile Asp Glu Ile Val Ser Gln Asn Met Pro Ser His Gly Ala Pro
65                  70                  75                  80
Pro Val Pro Pro Pro Ser Gly Ala Gly Ala Arg Ile Pro Asn Arg Arg
                85                  90                  95
Asn Ser Val Asp Arg Arg Gly Pro Asp Arg Tyr Arg Gly Tyr Glu Asp
            100                 105                 110
Pro Ala Arg Arg Arg Arg Ser Ser Phe Gly Arg Arg Ser Gln Ser Phe
        115                 120                 125
Glu Glu Gln Pro Pro Pro Leu Pro Gly His Pro His His Gln Pro Leu
    130                 135                 140
Pro Pro Pro Pro Pro Pro Pro Asp Ile Pro Gln Pro Pro Pro Pro Pro
```

145 150 155 160
Pro Pro Ser Gln Thr Gln Gln Ala Ala Gln Glu Asp Glu Gly Gly Gly
165 170 175
Ser Glu Glu Gly Glu Leu
180

<210> 33180
<211> 551
<212> PRT
<213> A.fumigatus

<400> 33180
Leu Phe Glu Arg Cys Arg Arg Cys Pro Arg Pro Gly Phe Phe Ala Glu
1 5 10 15
Asp Met Asp Ala Pro Met His Asp Asp Leu Ser Val Gly Asp Val Phe
20 25 30
Ala Pro Gln Ala Asp Met Ser Gln Pro Cys Asn Asp Ala Leu Leu Gly
35 40 45
Asn Asn Pro Asp Thr Arg Phe Cys Met Ser Gly Gly Ser Pro Ser Arg
50 55 60
Lys Gln Val Pro Val Thr Lys Asp Val Asn Glu Val Asp Pro Phe Pro
65 70 75 80
Ala His Asn Leu Asn Ile Glu Ala Leu Ser Gly Arg Pro Asp Arg Arg
85 90 95
Lys Lys Lys Lys Lys Cys Gln Thr Ser Glu Ala Pro Arg Ala Ile Ser
100 105 110
Thr Val Arg Gly Phe Thr Pro Leu Ala Ser Gly Asp Glu Asp Ser Asp
115 120 125
Phe Ser Thr Thr Ser Ala Lys Ala Arg Pro Ser Ser Arg Ala Ala Ala
130 135 140
Tyr Ala Glu Ser Asp Gly Asn Ser Pro Met Val Gln Pro Ala Gly Cys
145 150 155 160
Gly Val Ser Ala Leu Lys Leu Gln Leu Asp Ser Leu Ser Leu Ser Gly
165 170 175
Ser Gly Ser Ala Gln Ala Ala Gln Ser Asp Leu Cys Ser Glu Thr Pro
180 185 190
Ser Asn Ala Ser Val Cys Ser Asp Ser Asp Gln Thr Glu Val Leu Thr
195 200 205
Ser Tyr Glu Val Pro Leu Glu His Asp Phe Val Ser Ser Asp Ala Ala
210 215 220
Ala Glu Glu Thr Ser Ala Ser Leu Pro Gly Ala Gln Asp Val Arg Thr
225 230 235 240
Gln Leu Cys Arg Lys Met Thr Thr Thr Asp Phe Glu Pro Leu Leu Trp
245 250 255
Leu Gly Lys Gly Ser Phe Gly Thr Val Leu Leu Val Arg His Ala Leu
260 265 270
Thr Gly Lys Leu Tyr Ala Gln Lys Gln Phe Arg Lys Ala Ser Leu Thr
275 280 285
Val His Lys Lys Leu Val Glu Gln Thr Lys Thr Glu Arg Ala Ile Leu
290 295 300
Glu Ser Val Asn Arg His Pro Phe Val Val Lys Leu Phe Tyr Ala Phe
305 310 315 320
Gln Asp His Glu Lys Leu Tyr Leu Ile Leu Glu Tyr Ala Gln Gly Gly
325 330 335
Glu Leu Phe His His Leu Ala Met Glu Arg Met Phe Asp Glu Asp Ala
340 345 350

```
Ala Ala Phe Tyr Met Ala Glu Met Val Leu Ala Leu Glu His Leu His
        355                 360                 365
Gln Asn Val Gly Val Ile Tyr Arg Asp Leu Lys Pro Glu Asn Cys Leu
    370                 375                 380
Leu Asp Arg Asp Gly His Leu Leu Leu Thr Asp Phe Gly Leu Ser Lys
385                 390                 395                 400
Ile Ala Val His Asp Asp Asp Arg Cys Asn Ser Ser Leu Gly Thr Ile
                405                 410                 415
Glu Tyr Met Ala Pro Glu Val Ile Gln Gly Lys Pro Tyr Gly Lys Ala
            420                 425                 430
Cys Asp Trp Trp Ser Leu Gly Ala Leu Gly Tyr Asp Leu Leu Thr Gly
        435                 440                 445
Ser Pro Pro Phe Lys Ala Asn His Asn Ala Lys Leu Gln Glu Lys Asn
    450                 455                 460
Arg Gln Ala Glu Ala Gln Arg Cys Pro Ile Ser Leu Val Arg Met Pro
465                 470                 475                 480
Lys Thr Phe Ser Pro Ala Cys Cys Ala Arg Asn Leu Pro Ser Asp Ser
                485                 490                 495
Val Thr Thr Cys Pro Arg Thr Cys Arg Pro Ser Arg Thr Ile Ala Ser
            500                 505                 510
Ser Ala Arg Leu Thr Gly Lys Arg Ser Ser Val Ala Arg Leu Leu Pro
        515                 520                 525
Leu Ser Ser Leu Trp Ser Arg Thr Arg Leu Trp Arg Arg Thr Ser Leu
    530                 535                 540
Leu Thr Leu Pro Pro Phe Arg
545                 550
```

<210> 33181
<211> 198
<212> PRT
<213> A.fumigatus

<400> 33181

```
Val His Gly Ser Arg Ser His Ser Arg Gln Thr Val Arg Gln Ser Leu
1               5                   10                  15
Arg Leu Val Val Thr Trp Arg Thr Arg Val Arg Ser Thr Tyr Arg Leu
            20                  25                  30
Pro Ala Leu Gln Gly Gln Pro Gln Arg Gln Ala Ala Gly Lys Lys Ser
        35                  40                  45
Ser Ser Arg Ser Ser Thr Leu Pro Tyr Phe Leu Gly Pro Asp Ala Lys
    50                  55                  60
Asp Phe Leu Thr Arg Leu Leu Arg Lys Glu Pro Ser Lys Arg Leu Gly
65                  70                  75                  80
Tyr His Met Pro Lys Asp Val Gln Thr Ile Lys Asn His Arg Phe Phe
                85                  90                  95
Arg Lys Ile Asp Trp Lys Ala Leu Glu Arg Arg Glu Val Ala Pro Pro
            100                 105                 110
Ile Leu Pro Val Val Thr Asp Pro Ala Leu Ala Glu Asn Phe Ser Ala
        115                 120                 125
Asp Phe Thr Thr Leu Pro Leu Ser Pro Val Val Thr Ser Asn Gly Phe
    130                 135                 140
Asp Asp Tyr Tyr Ser Leu Arg Gln Arg Pro Ser Gln Arg Ala Met Ser
145                 150                 155                 160
Thr Gly Pro Asp Gly Met Ser Cys Asp Asn Asp Pro Phe Gly Gly Phe
                165                 170                 175
Ser Phe Val Ala Ser Ser Ser Leu Leu Asp Asn Asn Gly Val Gly Ile
```

```
            180                 185                 190
Thr Thr Gln Cys Tyr Arg
        195

<210> 33182
<211> 300
<212> PRT
<213> A.fumigatus

<400> 33182
Pro Leu Arg Thr Ile Gly Asp Asp Ala Glu Lys Ser Arg Leu Glu Glu
1               5                  10                  15
Leu Ala Gln Ser Tyr Asp Pro Val Pro Tyr Trp Thr Asn Ile His Pro
            20                  25                  30
Tyr Leu Leu Ser Thr Ile Gln His Gly Leu Arg Ala Ser Lys Ala Leu
        35                  40                  45
Pro Thr Pro Ser Asp Gly Asp Gln Thr Lys Gly Glu Pro Ser Leu Asp
    50                  55                  60
Lys Tyr Leu Leu Ala Glu Ile Pro Ala Thr Thr Leu Arg Arg Asn Ala
65                  70                  75                  80
Arg Ser Pro Arg Glu Pro Val Asn Asp Phe Leu Ala Arg Leu Pro Pro
                85                  90                  95
Ser Thr Thr Lys Glu Arg Asp Val Gly Pro Trp Ile Tyr Val Thr Asn
            100                 105                 110
Pro His Arg Lys Ile Asp Pro Asp Glu Gln Ala Ile Ala Lys Leu Val
        115                 120                 125
Arg Glu Gly Thr Glu Leu Leu His Arg Phe Glu Asp Gln Lys Ala Glu
    130                 135                 140
Leu Glu Ala Glu His Asp Arg Ser Arg Ser Lys Ser Lys Ala Ala Leu
145                 150                 155                 160
Thr Arg Arg Leu Asn Pro Leu Arg Arg Thr Leu Glu Gln Asp Ile Phe
                165                 170                 175
Ala Leu Ala Arg Arg Thr Gly Val Val Ser Gly Lys Trp Met Met Phe
            180                 185                 190
Ile Asn Ala Asp Gln Val Asp Lys Tyr Trp Glu Ala Val Ala Thr Gly
        195                 200                 205
Thr Val Ser Gly Lys Leu Gly Asp Ala Ala Lys Val Ala Thr Asp Asp
    210                 215                 220
Gly Thr Gly Arg Pro Arg Leu Ile Ala Ile Tyr Thr Lys Asp Tyr Ala
225                 230                 235                 240
Asp Arg Gln Asp Val Lys Arg Val Leu Glu Gly Met Val His Leu Gly
                245                 250                 255
Leu Val Lys Thr Asp Asp Arg Pro Ile Tyr Tyr His Cys Asp Ala Cys
            260                 265                 270
Thr Tyr Leu Arg Ile Leu Ser Asp Asn Pro Tyr Gly Leu Lys Ala Ser
        275                 280                 285
Met Ala Ser Thr Arg Asn Val Leu Ala Arg Lys Glu
    290                 295                 300

<210> 33183
<211> 77
<212> PRT
<213> A.fumigatus

<400> 33183
Arg Tyr Met Gly Thr His Pro Leu Ile Phe Thr Glu Ile Gly Ile Pro
```

```
1               5                   10                  15
Phe Asp Met Asp Asp Arg His Ala Tyr Lys Thr Gly Asp Tyr Ser Gly
            20                  25                  30
Gln Val Ser Ala Met Asp Ala Asn His Phe Ala Ile Glu Gly Ser Thr
        35                  40                  45
Ala Asn Gly Phe Thr Leu Trp Leu Tyr Thr Thr Ser Val Ser Ile Ser
    50                  55                  60
Met Leu Pro Arg Thr Lys Ser Phe His Thr Phe Ser Asn
65                  70                  75
```

<210> 33184
<211> 218
<212> PRT
<213> A.fumigatus

<400> 33184

```
Arg Ile Arg Gln Asn Asn His Glu Trp Gly Asp Asn Trp Asn Gly Glu
1               5                   10                  15
Asp Leu Ser Ile Tyr Ser Val Asp Asp Leu Glu Leu Pro Ser Gly Lys
            20                  25                  30
Leu Leu Ala Phe Glu Asn Glu Ser Gln Arg Asp Pro Gln Ser Pro Ala
        35                  40                  45
Tyr Ser Glu Ser Gln Arg Asn Thr Glu Ser Tyr Arg Val Gly Pro Arg
    50                  55                  60
Asp Leu Lys Gln Ala Leu Gln Ala Pro Ser Ile Ser Ser Glu Ile Ser
65                  70                  75                  80
Gln Ser Ser Gln Asp Lys Leu Gly Phe Arg Ala Ala Glu Ala Trp Val
                85                  90                  95
Arg Pro Ser Pro Ile Ile Thr Asn Gly Gln Ile Leu Gln Tyr Gly Phe
            100                 105                 110
Asp Leu Lys Ser Cys Val Phe Ser Met Arg Leu Leu Gly Glu Lys Lys
        115                 120                 125
Gly Leu Gly Gln Glu Ala Ala Thr Glu Ile Phe Leu Pro Asp Phe His
    130                 135                 140
Phe Pro Asp Thr His Thr Val Val Ala Val Ser Ala Gly Glu Trp Thr
145                 150                 155                 160
Ile Asp Tyr Pro Glu Ile His Ser Val Lys Phe Gln Arg Leu Arg Trp
                165                 170                 175
Trp His Pro Glu Gly Asp His Asn Ile Lys Ile Gln Gly Val Lys Arg
            180                 185                 190
Lys Pro Gly Asp Pro Thr Val Ser Gly Glu Glu Leu Ser Tyr Leu Glu
        195                 200                 205
Gln Cys Gln Gly Gly Gly Cys Ser Val Met
    210                 215
```

<210> 33185
<211> 326
<212> PRT
<213> A.fumigatus

<400> 33185

```
Asn Thr Glu Met Glu Pro Leu Pro Asp Ala Ile Ser Ala Asp Ala Ser
1               5                   10                  15
Gln Phe Ser Cys Thr Leu Ser Asn Gly Ala Ile Gln Cys Ser Glu Leu
            20                  25                  30
Gln Gly Gln Arg Glu His Arg Ile Ala Ile Asp Asp Val Ile Cys Ile
```

```
        35                  40                  45
Leu Pro His Ala Ser Gln Asp Gly Lys Lys Tyr Asn Met Leu Tyr Leu
    50                  55                  60
Arg Asn Gly Arg Asn Glu Ala Thr Ser Val Gln Pro Gly Asp Cys Gly
65                  70                  75                  80
Ser Ser Leu Thr Ser Val Gln Leu Val Ser Pro Pro Ser Thr Leu Leu
                85                  90                  95
Ser Arg Tyr Phe Cys Ala Glu Leu Pro Gln His Leu Lys Pro Ser Val
            100                 105                 110
Asp His Ala Ile Asp Ile Tyr Val Ile Ile Ser Ile Pro Ser Gly Thr
        115                 120                 125
Gly Lys Ala Lys Asn Phe Phe Lys Asn Ile Leu Gln Pro Phe Leu Ala
    130                 135                 140
His Ile Gly Leu Thr Glu Tyr Glu Val His Glu Thr Gln Ser Ala Arg
145                 150                 155                 160
Ser Ile Leu Glu Leu Cys Gln Ser Arg Leu Ile Pro Arg Ala Lys Leu
                165                 170                 175
Gly Val Ala Gln Thr Ile Ile Leu Leu Ser Gly Asp Gly Gly Leu Asn
            180                 185                 190
Asp Ile Val Asp Ser Phe His Gly Ala Val Gly Val Pro Ile Val Pro
        195                 200                 205
Pro Ile Val Ala Leu Ile Pro Met Gly Thr Gly Asn Ala Met Ala Ser
    210                 215                 220
Ser Leu Gly Leu Leu Ser Arg Pro Ala Glu Gly Leu Thr Val Leu Leu
225                 230                 235                 240
Lys Gly Ser Pro Lys Pro Ile Pro Thr Leu Val Ala Asn Phe Ser Pro
                245                 250                 255
Gly Ala Gln Tyr Val Thr Asp Glu Gly His Thr Leu Ile Pro Met Leu
            260                 265                 270
Asp Ser Ser Lys Thr Lys Ser Ser Val Asn Ser Ile His Gly Val Val
        275                 280                 285
Val Ala Ser Trp Gly Leu His Ala Ala Leu Val Ala Asp Ser Asp Thr
    290                 295                 300
Ser Glu Tyr Lys Arg Phe Gly Gly Arg Glu Val Pro Asp Gly Ser Gln
305                 310                 315                 320
Gly Ala Pro Phe Pro Phe
                325
```

<210> 33186
<211> 173
<212> PRT
<213> A.fumigatus

<400> 33186

```
Leu Leu Thr Val Thr Leu Leu Asn Ile Lys Gly Leu Gly Ala Glu Arg
1               5                   10                  15
Phe Gln Met Ala Ala Lys Glu Leu Leu Phe Pro Ser Ser Gly Ala Glu
            20                  25                  30
Thr His Arg Tyr Lys Gly Asn Ile Thr Leu Phe Arg Ser Asn Val Ala
        35                  40                  45
Thr Asn Glu Asn Ser Val Asp Thr Leu Glu Phe Gly Glu His Met Tyr
    50                  55                  60
Val Leu Ala Thr Leu Val Pro Arg Leu Glu Lys Asp Phe Leu Ile Ser
65                  70                  75                  80
Pro Glu Ser Val Ala Leu Asp Gly Arg Leu Arg Ile Ile Arg Phe Gly
                85                  90                  95
```

```
Ala Val Ser Ala Glu Lys Ala Met Gln Leu Met Ser Leu Ala Tyr Asp
            100                 105                 110
Gly Gly Arg His Val His Glu Ser Ser Val Leu Tyr Thr Glu Leu Glu
        115                 120                 125
Gly Phe Arg Ile Asp Phe Arg Glu Ala Glu Gln Lys Trp Arg Arg Val
    130                 135                 140
Cys Ile Asp Gly Lys Ile Val Ile Ile Glu Glu Asp Gly Trp Met Glu
145                 150                 155                 160
Val Leu Lys Gly Ser Thr Gly Arg Val Asn Ile Leu Val
                165                 170
```

<210> 33187
<211> 372
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (314),(329)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33187

```
Thr Ile Gly Leu Asn Asp Lys Leu Gly Val Ser Gly Phe Cys Ile Met
1               5                   10                  15
Asp Ser Ser Cys Leu Tyr Ser Lys Glu Leu Gln Leu Ala Cys Leu Thr
            20                  25                  30
Val Gln Arg Ala Ala Leu Leu Thr Lys Lys Leu Leu Glu Ala Val Asp
        35                  40                  45
Lys Gly Ser Phe Asp Lys Ser Asp Ser Thr Pro Val Thr Ile Ala Asp
    50                  55                  60
Phe Ala Ala Gln Ala Leu Ile Ile Gly Ala Ile His Lys Ala Phe Pro
65                  70                  75                  80
Glu Asp Glu Phe Val Gly Glu Glu Asp Ser Lys Ala Leu Arg Ala Asp
                85                  90                  95
Pro Glu Leu Leu Glu Arg Thr Trp Glu Leu Ala Ser Thr Thr His Leu
            100                 105                 110
Asp Asp Lys Asp Ser Glu Ala Leu Leu Tyr Ala Pro Lys Ser Lys Glu
        115                 120                 125
Glu Met Leu Asp Leu Ile Asp Leu Gly Ala Arg Gly Arg Cys Ser Leu
    130                 135                 140
Glu Asn Arg Ala Trp Val Leu Asp Pro Val Asp Gly Thr Ala Thr Phe
145                 150                 155                 160
Met Gln Gly Gln Gln Tyr Ala Val Cys Leu Ala Leu Val Glu Asn Gly
                165                 170                 175
Cys Gln Lys Val Gly Val Leu Gly Cys Pro Asn Leu Asn Leu Ala Thr
            180                 185                 190
Gly Arg Leu Arg Glu Asp Val Val Asp Arg Asp Gly Tyr Gly Ser Gln
        195                 200                 205
Val Phe Ala Val Ala Gly Gln Gly Ala Trp Ile Arg Lys Met Gly Arg
    210                 215                 220
Gly Gly Leu Leu Ala Ala Glu Ser Ile Pro Gln Arg Pro Gln Ile Thr
225                 230                 235                 240
Asp Pro Lys Asp Leu Asp Phe Val Asp Cys Gly Ser Ala Thr Ser Ser
                245                 250                 255
Asn Thr Ser Leu His Ala Arg Val Ala Ser Lys Leu Gly Ala Pro Trp
            260                 265                 270
```

```
Pro Tyr Ser Thr Asp Leu Trp Ala Ala Gln Leu Arg Tyr Ile Ala Ile
        275                 280                 285
Ala Val Gly Gly Cys Asn Ala Leu Ile Lys Ile Pro His Lys Ala Leu
    290                 295                 300
Tyr Arg Ser Lys Ile Trp Asp His Ala Xaa Gly Met Leu Ile Ala Glu
305                 310                 315                 320
Glu Val Gly Val Lys Val Thr Asp Xaa Ala Gly Asn Pro Val Asp Cys
                325                 330                 335
Ser Leu Gly Arg Thr Leu Ala Gly Cys Tyr Gly Met Ile Val Ala Pro
            340                 345                 350
Pro Ser Ile His Glu Arg Ile Val Glu Ala Val Lys Glu Val Met Gln
        355                 360                 365
Glu Gln Thr Lys
    370
```

<210> 33188
<211> 283
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (258)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33188

```
Tyr Tyr Pro Ser Leu Asn Met Ile Gly Asn Pro Gly Ala Leu Leu Val
1               5                   10                  15
Asp Met Lys Lys Gln Gly Leu Phe Glu Ser Phe Asp Lys Ser Tyr His
            20                  25                  30
Pro Thr Tyr Gly Ile Gly Thr Met Ser Gly Asn Ile Tyr Asp Thr Ser
        35                  40                  45
Trp Ile Ser Met Val Arg Lys Pro Thr Glu Gly Gly Ser Val Trp Ala
    50                  55                  60
Phe Pro Ala Ala Phe Gln Ala Ile Leu Gln Glu Gln Ser Pro Cys Gly
65                  70                  75                  80
Ser Trp Gly Gly Ser Thr Ser Glu Leu Asp Cys Ile Val Ser Thr Leu
                85                  90                  95
Ala Ala Leu Leu Ser Leu Gln Lys His Ala Gly Asp Cys Cys Glu Met
            100                 105                 110
Glu Phe Glu Asp Leu His Ser Arg Ile Leu Lys Ala Lys Gln Phe Leu
        115                 120                 125
Gln Thr Ala Leu Lys Gly Leu Asp Arg Leu Leu Ala Thr Cys Thr Leu
    130                 135                 140
Ser Val Gly Leu Glu Val Arg Leu Pro Glu Ile Leu Asp Leu Leu Glu
145                 150                 155                 160
Leu Glu Gly His Thr Phe Asn Phe Asp Arg Thr Tyr Leu Thr Glu Ile
                165                 170                 175
Gln Ser Lys Lys Leu Ser Lys Ile Asn Leu Glu Thr Ile Phe Asn Gly
            180                 185                 190
Pro Gln Ser Ser Leu Leu His Ser Leu Glu Ala Val Ile Arg Lys Val
        195                 200                 205
Asp Ile Lys Ala Leu Gly His Gln Lys Val Leu Gly Ser Met Leu Ala
    210                 215                 220
Ser Pro Ser Ala Thr Ala Ala Tyr Leu Met Tyr Ser Pro Val Trp Asp
225                 230                 235                 240
```

```
Asp Glu Ala Glu Glu Tyr Ile Arg His Ala Ile Ser Lys Gly Ala Gly
                245                 250                 255
Arg Xaa Ser Gly Leu Val Ala Ala Gly Tyr Pro Thr Thr Val Phe Glu
            260                 265                 270
Trp Ala Trp Val Gly Leu Asn Met Leu Trp Gln
        275                 280
```

<210> 33189
<211> 99
<212> PRT
<213> A.fumigatus

<400> 33189

```
Thr Val Pro Asn Ala Cys Ala Asp Ala Asp Asp Thr Ala Lys Ala Leu
1               5                   10                  15
Val Pro Leu Met Leu Gln Gly Thr Arg Tyr Ser Pro Gln Ala Leu Val
            20                  25                  30
Asp Arg Phe Glu Arg Glu Asn His Phe Ala Thr Tyr Leu Tyr Glu Thr
        35                  40                  45
His Thr Ser Val Ser Thr Asn Ser Asn Val Leu Ala Ala Leu Val Leu
    50                  55                  60
Leu Ser Thr Asp Gly His Tyr Gln Pro Gln Ile Glu Lys Cys Ile Arg
65                  70                  75                  80
Tyr Leu Cys Glu Ala Trp Phe Asn Cys Asn Gly Met Leu Lys Asp Lys
                85                  90                  95
Trp Val Cys
```

<210> 33190
<211> 302
<212> PRT
<213> A.fumigatus

<400> 33190

```
Thr Leu Thr Phe Ser Ile Val Ser Pro Val Phe Pro Pro His Cys Phe
1               5                   10                  15
Ile Ile Pro Val Leu Leu Phe Phe Tyr Thr Leu Gly Ala Phe Ala Cys
            20                  25                  30
Gln Val Ile Leu Gly Ser Arg Arg Ser Leu Gly Thr Met Ser Leu Gln
        35                  40                  45
Val Lys Asp Pro Arg Ser Arg Gly Arg Ser Lys Ser Pro Ser Gly Arg
    50                  55                  60
Ile Arg Asp Arg Ser Lys Ser Arg Asp Ser Arg Leu Pro Ser Thr Ala
65                  70                  75                  80
Pro Asp Ala Ala Arg Ser Ser Glu Arg Lys Tyr Leu Ala Thr Asp Ala
                85                  90                  95
Arg Asp Asp His Leu Arg Ser Arg Ser Arg Gly Pro Arg Asp Ser Asn
            100                 105                 110
Thr Ser Val Ser Ser His Arg Asn Arg Ser Arg Tyr Asp Val Ser Asp
        115                 120                 125
Ser Ala Ser Glu Arg Asp Asp Arg Lys Asp Arg Tyr Leu Arg Ser Glu
    130                 135                 140
Arg Arg Arg Asp His Tyr Tyr Gln Ser Asp Ser Gly Glu Ser Lys Leu
145                 150                 155                 160
Ala Lys Arg Asp Asp Arg Lys Asp Tyr Ala Arg Ser Pro Asn Leu Arg
                165                 170                 175
```

```
Pro Val Thr Tyr Glu Ser Pro Ser Asp Asp Phe Tyr Ser Asp Thr Asp
            180                 185                 190
Asp Glu Ala Leu Ala Tyr Gly Asp Ala Pro Ser Asp Leu Glu Arg Asp
        195                 200                 205
Phe Tyr Gly Tyr Arg Lys Pro Ala Arg Ala Ser Ser Pro Arg Val Asp
    210                 215                 220
Gly Pro Val Met Ser Gly Ala Leu Asn Gly Ala Pro Pro Ala Lys His
225                 230                 235                 240
Asp Ser Ser Arg Ser Arg His Ala Ser Asp Glu Asp Ile Pro Gly His
                245                 250                 255
His Pro Ser Tyr Ala Arg Pro Gly Gln Phe Gln Tyr Val Met Pro Ser
            260                 265                 270
Gln Tyr Gly Gln Phe Gln Pro Ser Tyr Pro Pro Thr Ser Ser Ala Arg
        275                 280                 285
Leu His His Gly Ala Gly Arg Thr Asp Gly Gly Thr Thr Val
    290                 295                 300
```

<210> 33191
<211> 189
<212> PRT
<213> A.fumigatus

<400> 33191

```
Gly Gly Cys Ser Asp Ile Val Ser Met Leu Leu Asn Lys Gly Ala Asp
1               5                   10                  15
Thr Asp Leu Gly Asp Asn Thr Gly Ser Thr Pro Leu His Thr Ala Val
            20                  25                  30
Trp Lys Lys His Cys Lys Ile Thr Gln Leu Leu Leu Glu Arg Gly Ala
        35                  40                  45
Ala Val Gly Ser Arg Asp Ser Tyr Gly Arg Thr Ala Leu Asp Ile Ala
    50                  55                  60
Met Thr His Gly Ser Gln Arg Trp Leu Ser Leu Phe Leu Lys His Ala
65                  70                  75                  80
Lys Ile Asn Ala Gln Asp Cys Gln Pro Leu His Pro Ala Ile Ser Leu
                85                  90                  95
Asn Lys Thr Ala Val Val Arg Trp Leu Leu Glu Asn Gly Ala Asp Ile
            100                 105                 110
Asn Arg Lys Asp Ser Arg Gly Gln Thr Pro Leu Leu Tyr Ala Met Leu
        115                 120                 125
Glu Ala His Asp His Leu Ala Glu Leu Leu Leu Leu Tyr Asp Val Asp
    130                 135                 140
Pro Asp Ala Glu Arg Tyr Asp Gly Leu Thr Pro Leu Lys Leu Ala Ser
145                 150                 155                 160
Glu Ile Asn Arg Glu Asp Trp Ala Gln Lys Leu Arg Ala Lys Arg Asp
                165                 170                 175
Lys His Lys Tyr Leu Ser His Ser Leu His Ser Thr Ser
            180                 185
```

<210> 33192
<211> 176
<212> PRT
<213> A.fumigatus

<400> 33192

```
Arg Val Arg Ile Asp Ser Pro His Ala Asp Ser Lys Ala Lys Leu Gln
1               5                   10                  15
```

```
Phe Arg Ser Ile Gly Met Leu Leu Gly Tyr His Leu Leu Trp Ser Thr
            20                  25                  30
Thr Ala Asn Val Val Gly Thr Ala Glu Gln Ala Asp Arg Leu Gln Lys
        35                  40                  45
Leu Ile Ile Thr Asn Asn Leu Phe Val Gly Gly Ala Val Asn Pro Arg
    50                  55                  60
Asp Asn Asp Leu Gln Ile Thr Ala Asp Gly Asp Ser Ile Val Phe Asn
65                  70                  75                  80
Gly Phe Lys His Phe Asn Thr Gly Gly Val Val Ser Asp Leu Thr Val
                85                  90                  95
Leu Glu Gly Val Leu Asp Gly Thr Gln Asp His Ile Phe Ala Val Val
            100                 105                 110
Glu Thr Asn Gln Pro Gly Ile Gln Phe Ala Tyr Asn Trp Lys Asn Ile
        115                 120                 125
Gly Leu Arg Leu Thr Glu Ser Gly Ser Val Lys Ile Glu Asn Val Arg
    130                 135                 140
Ala Ser Trp Thr Asp Ala Leu Gly Trp Asp Ala Thr Thr Lys Arg Pro
145                 150                 155                 160
Leu Ala Glu Ile Leu Thr Ile Pro Phe Ala Ser Leu Phe Leu Pro Thr
                165                 170                 175
```

<210> 33193
<211> 151
<212> PRT
<213> A.fumigatus

```
<400> 33193
Ser Asn Phe Pro Gln Met Ala Gln Ala Asn Val Pro Ala Thr Asp Pro
1               5                   10                  15
Ala Val Tyr Asp Ala Tyr Lys Glu Ile Trp Ala Ala Leu Pro Asp Ser
            20                  25                  30
Ala Asp Ala Trp Leu Ala Arg Ala Arg Glu Val Ala Glu Val Leu Ala
        35                  40                  45
Gln Asp Ala Ala Gln Arg Asp Gln Asp Asn Lys Ser Pro Arg Ala Glu
    50                  55                  60
Val Ala Leu Leu Lys His Ser Gly Leu Leu Lys Leu Leu Gly Pro Lys
65                  70                  75                  80
Lys Tyr Gly Gly Gly Glu Gln Pro Trp Arg Val Gly Tyr Lys Ala Ile
                85                  90                  95
Arg Glu Val Ala Lys Gly Asp Gly Cys Val Leu Thr Val His Met Gln
            100                 105                 110
Thr Val Lys Leu Asn Cys Asn Ser Gly Pro Leu Ala Cys Ser Leu Gly
        115                 120                 125
Ile Ile Ser Ser Gly Arg Leu Gln Pro Met Trp Ser Ala Pro Pro Asn
    130                 135                 140
Lys Pro Ile Val Cys Arg Asn
145                 150
```

<210> 33194
<211> 219
<212> PRT
<213> A.fumigatus

```
<400> 33194
Arg Arg Pro Cys Thr Pro Val Gln Arg Tyr Ser Leu Ser Ile Ser Ser
1               5                   10                  15
```

```
Gly Ser Tyr Thr Tyr Asp Leu Asp Ser Val Cys Ile Ile Met Gly Ala
            20                  25                  30
Met Ile Lys Ser Arg Arg Cys Asn Leu Pro Cys Tyr Ser Asp Ser Gly
        35                  40                  45
Thr Arg Ser Met Asn Asn His Ala Gln Pro Trp Tyr Trp Thr Gly Ile
    50                  55                  60
Ala Ile Asn Leu Gly Gln Ile Met Gly Leu His Arg Asp Pro Asp Ala
65                  70                  75                  80
Val Lys Phe Asn Pro Ser Ile Thr Gly Arg Arg Arg Ala Leu Trp Arg
                85                  90                  95
Arg Leu Trp Trp Ser Cys Phe Phe Arg Asp Arg Trp Leu Gly Leu Thr
            100                 105                 110
Leu Gly Arg Pro Leu Arg Ile Asn Leu Leu Asp Cys Asp Leu Pro Met
        115                 120                 125
Pro Ser Thr Ala Asp Val Met Ser Asp Leu Ser Glu Val Ser Pro Ser
    130                 135                 140
Val Ala Ser Leu Phe Ile Pro Glu Asp Leu Ala Gln Leu Ser Glu Tyr
145                 150                 155                 160
Trp Ile Leu Leu Leu Arg Leu Ser Lys Ile Leu Gly Asp Ala Leu Thr
                165                 170                 175
Leu Ile Tyr His Pro Lys Arg Pro Asn Pro Thr Ile Glu Gln Phe Glu
            180                 185                 190
Ser Leu Glu Ser Asp Leu Pro Thr Leu Glu Ile Pro His Glu Cys Cys
        195                 200                 205
Ser Asp His Thr Glu Cys Ala Arg Phe Ala Val
    210                 215

<210> 33195
<211> 250
<212> PRT
<213> A.fumigatus

<400> 33195
Asn Asn Ile Met Gln Lys Gly Leu Phe Pro Asp Cys His Ser Gln Gln
1               5                   10                  15
Thr Arg Asn Gln Pro Leu Arg Glu Ile Arg Ala Phe Pro His Pro Arg
            20                  25                  30
Ser Ser Pro Arg Arg Asn Asp Arg Thr Ser Gln Val Gly Ser Gly Glu
        35                  40                  45
Thr Val Gly Gly Arg Thr Val Ser Asn Leu Ala Arg Asp Met Ser Gln
    50                  55                  60
Ser Gly Arg Ala Val Ser Glu Pro Thr Ala Ala Thr Gly Thr Thr Thr
65                  70                  75                  80
Pro Tyr Ser Glu Gln Ser Arg Ile Glu Asp Glu Glu Arg Ser Ala Ala
                85                  90                  95
Asp Phe Ala Thr Ala Ser Leu Ala Pro Arg Asp Ala Glu Ala Asn Asp
            100                 105                 110
Met Pro Ile Tyr Thr Gly Leu Leu Ala Cys Met Thr Gln Cys Ile Arg
        115                 120                 125
Arg Gln Leu Thr Val Val Gly Glu Ser Leu Gly Phe Ser Ala Val Leu
    130                 135                 140
Asp Val Leu Ala Thr His Ala Val Pro Arg His Val Phe Arg Pro Ser
145                 150                 155                 160
Ser His Pro Ser Leu Thr Ala Gln Asp Val Glu Tyr Leu Lys Phe Lys
                165                 170                 175
Gly Cys Leu Thr Leu Pro Ser Ser Asp Ile Cys Arg Glu Leu Leu Arg
```

```
            180                 185                 190
Ala Tyr Phe His His Val His Pro Ile Leu Pro Val Val Asp Ala Ala
        195                 200                 205
Gln Val Leu Lys Phe Glu Gln Gln His Asp Arg Pro Ala Glu Trp Asn
    210                 215                 220
Leu Leu Leu Leu Trp Ser Ile Phe Phe Val Ala Val Asn Val Ser Ile
225                 230                 235                 240
Ser Pro Arg Glu Pro His His Leu Ala His
                245                 250
```

<210> 33196
<211> 135
<212> PRT
<213> A.fumigatus

<400> 33196

```
Leu Leu Ile Leu Phe Thr Ala Val Ser Val Ala Val Val Ser Gln Cys
1               5                   10                  15
Ser Ala Ala Gly His Pro Ile Ser Val Pro Pro Val Gly Ala Ala Ser
            20                  25                  30
Thr Thr Ala Ser Glu Thr Ala Thr Thr Thr Glu Ser Ser Thr Gln Thr
        35                  40                  45
Thr Thr Gly Thr Ser Ser Thr Ala Ser Lys Thr Ser Ser Ser Ala Ala
    50                  55                  60
Ser Ser Thr Pro Ser Ser Ser Ser Ala Ser Ser Ser His His His Ser
65                  70                  75                  80
Ser Ser Ser Ala Leu Thr Thr Arg Thr Leu Thr Ser Thr Glu Pro Ser
                85                  90                  95
Ser Gln Ser Thr Ser Ala Ser Ala Ala Ala Thr Thr Thr Leu Ser Gly
            100                 105                 110
Asn Ala Gly Ser Glu Lys Ala Asn Val Ala Gly Val Val Ala Val Ala
        115                 120                 125
Ala Ala Ala Leu Tyr Leu Leu
    130                 135
```

<210> 33197
<211> 410
<212> PRT
<213> A.fumigatus

<400> 33197

```
Pro Gly Phe Gly Arg Ile Thr Phe Gly Tyr Phe Arg Thr Ile Pro Arg
1               5                   10                  15
Lys Trp Glu Lys Trp Val Trp Lys Gly Gly His Arg Trp Arg Asn Leu
            20                  25                  30
Lys Gly Gly Pro Arg Phe Glu Arg Ser Gln Thr Asp Leu Gly Ser Val
        35                  40                  45
Gly Ala Phe Arg Gly Ala Thr Arg Trp Tyr His Gly Leu Ser Phe Phe
    50                  55                  60
Arg Gly Ile Phe Tyr Leu Ile Phe Lys Trp Ser Ala Tyr Gly Leu Asp
65                  70                  75                  80
Arg Ile Leu Asp Arg Ile Gly Ile Ser Ala Gly Pro Gln Trp Leu Lys
                85                  90                  95
Val Leu Leu Gly Ser Arg Arg Arg Gly Gln Glu Gly Asn Ser Ser Ser
            100                 105                 110
Arg Ala Glu Ser Leu Asp Phe Trp Ile Leu Thr Asp Glu Gly Glu Leu
```

```
        115                 120                 125
Glu Leu Pro Gly Asp Tyr Glu Phe Asp Val Glu Lys Glu Met Arg Lys
    130                 135                 140
Arg Glu Leu Ser Ile Ala Pro Lys Trp Glu Glu Ser Asp Glu Lys Arg
145                 150                 155                 160
Leu Asp Glu Lys Leu Tyr Gly Trp Trp Arg Ala Gly Gly Ser Trp Gly
                165                 170                 175
Asn Gln Asp Gln Ser Pro Asp Tyr Val Pro Ser Asp Ser Asp Asp Leu
            180                 185                 190
Cys Asp Thr Thr Ser Val Val Ser Met Ser Thr Asn Ala Glu Ser Glu
        195                 200                 205
Trp Glu Asp Glu Ser Asp Gly Arg Arg Thr Leu Ile Gln Arg Ser Pro
    210                 215                 220
Tyr Pro Ala Gly Val Ser Arg Glu Ser Thr Pro Val Asp Glu Pro Leu
225                 230                 235                 240
Val Asp Val Gly Ser Leu Ala Arg Leu Leu Asp Leu Arg Asp Gln Glu
                245                 250                 255
Ser Arg His Glu Ala Arg Ile Leu Ala Ala His Leu Ala Ala Gly Arg
            260                 265                 270
Asp Gly Arg Ile Met Thr Arg Arg Gln Phe Gln Gln Lys Met Glu Arg
        275                 280                 285
Glu Arg Ala Gln Val Leu Leu Ser Ser Arg Phe Ser Gly Ser Ser Gly
    290                 295                 300
Gln Gln Thr Gly Lys Glu Lys Arg Lys Pro Thr Pro Glu Glu Glu Ser
305                 310                 315                 320
Glu Met Leu Glu Lys Phe Ile Leu Thr Arg Arg Ser Glu Ala Asn Arg
                325                 330                 335
Ala Asn Pro Glu Ala Gln Thr Trp Glu Ser Gly Ala Ser Gly Leu Gly
            340                 345                 350
Pro Asp Gly Pro Pro Cys Val Ile Cys Gln Ala Asn Pro Arg Ser Ile
        355                 360                 365
Ile Thr Trp Pro Cys Arg Cys Leu Cys Ile Cys Glu Glu Cys Arg Val
    370                 375                 380
Ser Leu Ala Met Asn Asn Phe Gly Ser Cys Val Thr Cys Arg Gln Glu
385                 390                 395                 400
Val Gly Gly Phe Val Arg Leu Trp Val Pro
                405                 410
```

<210> 33198
<211> 117
<212> PRT
<213> A.fumigatus

```
<400> 33198
Trp Ser Arg Val Arg Lys Arg Gly Pro Tyr Asn Glu Lys Ala Val Met
1               5                   10                  15
Leu Pro Ala Pro Arg Leu Asn Asp Gln Ala Tyr Cys Gln Tyr Ile Tyr
            20                  25                  30
Asn Asp Gly Gln Thr Ile Ala Ser Thr Asp Cys Glu Glu Glu Asp Gly
        35                  40                  45
Gln Pro Ala Asp His Pro His Arg Lys Ala Ala Tyr Thr His His Phe
    50                  55                  60
His Arg His Phe Thr Thr Val Ser Leu Asp Asp Leu Val Asn His Ile
65                  70                  75                  80
Val Gln Glu Pro Val Thr Thr Thr Val Glu Ile Ser Glu Gly Arg Gln
                85                  90                  95
```

```
Ser Arg Ile Gly Ser Gln Pro Ser Val Phe Ser Pro Ile Asp Ala Arg
            100                 105                 110
Val Asn Val Met Glu
        115

<210> 33199
<211> 221
<212> PRT
<213> A.fumigatus

<400> 33199
Leu Gly Thr Ile Ile Gln Thr Leu Thr Pro Glu Leu His Pro Pro Asn
1               5                   10                  15
Ala Pro Ser Pro Ala Gly Leu Pro Ser Thr His Val Thr Ile Ile Ala
            20                  25                  30
Leu Thr Ser Thr Ile Ala Arg Leu Leu Thr Gly Ser Leu Ser Asp Phe
        35                  40                  45
Phe Ala Pro Pro Ala Thr His Leu Phe Pro Ala Asn Ile Glu Ser Gly
    50                  55                  60
Arg Arg Ser Ser Gln Ser Gly Pro Thr Ala Lys Arg Pro Thr Leu Ser
65                  70                  75                  80
Arg Leu Ala Phe Leu Leu Pro Ser Ala Leu Leu Leu Ser Leu Gly Tyr
                85                  90                  95
Leu Leu Leu Ser Ser Pro Leu Pro Leu Gln His Pro Gly Leu Ser His
            100                 105                 110
Val Thr Thr Ala Leu Ile Gly Leu Gly Tyr Gly Ser Ala Phe Ser Leu
        115                 120                 125
Val Pro Ile Ile Ile Ser Val Val Trp Gly Val Glu Asn Phe Gly Thr
    130                 135                 140
Asn Trp Gly Ile Val Ala Met Val Pro Ala Ala Gly Ala Ala Met Trp
145                 150                 155                 160
Gly Val Ile Tyr Ser Arg Gly Tyr Gln Asp Ala Thr Asp Gly Gly Asn
                165                 170                 175
Gly Ser Pro Asp Gly Gln Cys His Gly Trp Arg Cys Tyr Gly Phe Trp
            180                 185                 190
Ala Val Gly Cys Thr Leu Ser Val Trp Val Ala Val Val Ala Trp Ile
        195                 200                 205
Leu Ala Trp Arg Gly Trp Arg Arg Arg Gly Val Val Val
    210                 215                 220

<210> 33200
<211> 468
<212> PRT
<213> A.fumigatus

<400> 33200
Ala Trp Ser Phe Ser Leu Gly Ala Gly Ser Ile Thr Ala Phe Ser Leu
1               5                   10                  15
Tyr Gly Pro Leu Phe Leu Thr Arg Leu His Tyr Ser Gln Leu Gln Val
            20                  25                  30
Asn Ala Val Ser Ile Ala Ala Glu Ile Ser Met Tyr Leu Pro Val Pro
        35                  40                  45
Leu Phe Gly Tyr Leu Cys Asp Arg Tyr Thr Pro Ser Pro Leu Ala Leu
    50                  55                  60
Leu Ser Gly Leu Val Phe Gly Gly Gly Tyr Leu Leu Ala Ala Phe Ala
65                  70                  75                  80
```

```
Tyr Arg Ser Gly Pro Leu Pro Glu Ala Gly Gly Glu Gly Trp Pro Pro
                85                  90                  95
Trp Val Met Val Val Ala Phe Val Ala Ile Gly Thr Ala Thr Ser Cys
            100                 105                 110
Met Tyr Leu Ala Ala Val Thr Thr Cys Ala Lys Asn Phe Gly Arg Gly
        115                 120                 125
Lys His Lys Gly Ile Met Leu Ala Val Pro Ile Ala Gly Phe Gly Leu
    130                 135                 140
Ser Gly Met Trp Gln Ser Gln Val Ala Thr Tyr Leu Leu Cys Glu Arg
145                 150                 155                 160
Arg Glu Asp Gly Ser Arg Gly Asp Val Asp Val Phe Arg Tyr Phe Leu
                165                 170                 175
Phe Leu Ala Leu Phe Leu Phe Cys Leu Gly Val Ile Gly Thr Phe Gly
            180                 185                 190
Leu Arg Ile Val Asp Glu Glu Glu Asp Gln Tyr Ile Asp Glu Ala Val
        195                 200                 205
Glu Glu Leu Glu Arg Ser Gly Leu Leu Glu Glu Ser Glu Phe Phe Arg
    210                 215                 220
Pro Arg Ser Glu Val Gln Ala Ala Tyr Gly Thr Phe Ser Asp Ala Ala
225                 230                 235                 240
Asp Gly Asp Ala Pro Gly Pro Glu Leu Ser Leu Thr Leu Ser Glu Glu
                245                 250                 255
Glu Arg Glu Ala Ala Arg Leu Glu Lys Glu Arg Glu Glu Glu Glu Arg
            260                 265                 270
Arg Lys Lys Asn Trp Leu Leu Asn Phe Glu Thr Arg Leu Phe Leu Gln
        275                 280                 285
Asp Gln Thr Met Trp Trp Leu Ala Val Gly Phe Phe Leu Val Thr Gly
    290                 295                 300
Pro Gly Glu Ala Tyr Ile Asn Asn Val Ser Leu Leu Pro Thr Ile Pro
305                 310                 315                 320
Val Asp Asp Lys Leu Ile Phe Leu Leu Val Arg His Asn His Ser Asp
                325                 330                 335
Thr His Ala Gly Ile Thr Pro Ser Gln Cys Ser Ile Ser Ser Arg Pro
            340                 345                 350
Ala Leu Tyr Thr Cys Asp Tyr Asn Ser Ala His Val Asn Tyr Ser Pro
        355                 360                 365
Thr Ala Asp Arg Ile Ser Leu Gly Leu Leu Arg Ala Pro Gly His Ser
    370                 375                 380
Ser Val Ser Gly Lys His Arg Lys Trp Pro Ser Leu Leu Ala Ile Arg
385                 390                 395                 400
Ser Asp Arg Lys Glu Ala His Pro Val Ala Thr Arg Leu Pro Ser Ala
                405                 410                 415
Phe Ser Pro Pro Pro Leu Pro Arg Leu Ser Pro Pro Leu Ile Pro Leu
            420                 425                 430
Thr Pro Pro Ala Pro Arg Ser Phe Thr Arg Asn Asn Arg Ala Asp Arg
        435                 440                 445
Pro Arg Leu Arg Gln Arg Leu Phe Pro Arg Pro His His His Leu Cys
    450                 455                 460
Arg Met Gly Ser
465
```

<210> 33201
<211> 563
<212> PRT
<213> A.fumigatus

<400> 33201

```
Ile Thr Thr Gly Arg Leu His Leu Glu Pro Tyr His Ser Lys Leu Gln
1               5                  10                  15
Thr Ala Ser Glu Tyr Met Leu Asn Ala Ala Val Ala Ala Pro Arg Cys
            20                  25                  30
Phe Val Tyr Pro Thr Asp Arg Ala Ala Met Arg Leu Gly Phe Ala Leu
        35                  40                  45
Arg Leu Ser Ser Pro Ala Pro Leu Phe Ser Thr Ala Pro Phe Arg Arg
    50                  55                  60
Gln Leu His Ala Ser Gly Val Arg Ser Ile Glu Pro Val Ile Phe Arg
65                  70                  75                  80
Asn Ser Leu Glu Lys Thr Leu Glu Ala His Arg Ser Ser Asn Arg Ala
                85                  90                  95
Ser Leu Ile Arg Lys Val Ile Asn His Asp Cys Pro Ala Glu Thr Pro
            100                 105                 110
Pro Pro Ile Leu Pro Leu Glu Asn Arg Ala Gly His Asp Gln Ser Ser
        115                 120                 125
Gln Lys Ala Ser Ser Val Ser Asn Ala Glu Ser Glu Ser Pro Arg Ser
    130                 135                 140
Ser Ala Pro Ala Arg Arg Ala Gln Arg Lys Ala Arg Ser Pro Ser Gln
145                 150                 155                 160
Val Ala Thr Pro Gln Pro Gln Thr Thr Glu Tyr Pro Gln Leu Gln Trp
                165                 170                 175
His Ala Asp Glu Thr Lys Gly Arg Pro Ala Gln Ser Pro Trp Leu Lys
            180                 185                 190
Tyr Leu Thr Thr Asp Trp Lys Thr Pro Asp Ala Val Ser Arg Leu Asp
        195                 200                 205
Ala Glu Ile Arg Ala Leu Glu Leu Tyr Met Thr Pro Thr Pro Ser Glu
    210                 215                 220
Arg Thr Glu Ile Asp Arg Leu Val Ala Asp Met Gly Arg Leu Leu Ala
225                 230                 235                 240
Gly Ile Val Pro Ser Pro Pro Gln Val Thr Gly Ser Trp Arg Thr Arg
                245                 250                 255
Phe Ala Leu Ser His Ser Gly Leu Asp Phe Val Leu Pro Val Pro Asp
            260                 265                 270
Ser Asp Arg Ser Thr Arg Asp Val Arg Lys Pro Ser Ala Thr Arg Pro
        275                 280                 285
Lys Val Leu Gln Thr Tyr Lys Lys Leu Leu His Glu Val Lys His Ala
    290                 295                 300
Leu Gln Gln Ser Pro Ser Phe Ala Glu Arg Val Arg Ile Ile Gly Ser
305                 310                 315                 320
Arg Phe Pro Val Leu Ser Ala Ile His Arg Pro Thr Gly Arg Leu Leu
                325                 330                 335
Gln Phe His Cys Gly Glu Gly Leu Pro Ala Ser Val Glu Tyr Ile Met
            340                 345                 350
Asp Tyr Gln Ala Glu Tyr Pro Ser Ile Arg Pro Leu Tyr Val Thr Ala
        355                 360                 365
Arg Leu Ile Leu Glu Ala Arg Gly Arg Tyr Gly Arg Thr Gln Met Ser
    370                 375                 380
Ile Glu Ser Asp Ala Leu Val Met Leu Leu Val Ala Phe Leu Lys Met
385                 390                 395                 400
Asn His Gly Arg Phe Gln Arg Pro Asp Cys Leu Gly Glu Gln Leu Ile
                405                 410                 415
Ala Phe Leu Arg Ala Tyr Gly Ser Asp Ile Asp Leu Thr Thr Thr Gly
            420                 425                 430
Val Ser Val Asp Pro Pro Ser Trp Phe Asn Ala Ser Thr Val Lys Arg
```

```
        435                 440                 445
Ala Ser Ala Leu Tyr Ala Pro Asp Asp Leu Pro Ala His Leu Arg Gly
    450                 455                 460
Gln Arg Ser Leu Ile Ser Leu Lys Arg Thr Ala Ala Ala Arg Arg Asn
465                 470                 475                 480
Leu Pro Ala Ala Ser Arg Leu Cys Val Gln Asp Pro Thr Asn Tyr Met
                485                 490                 495
Asn Asp Leu Gly Arg Ser Cys Val Arg Thr Leu Glu Leu Gln His Thr
            500                 505                 510
Phe Ser Leu Ala His Asp Arg Leu Gly Ala Ser Leu Lys Arg Trp Asp
        515                 520                 525
Asp Ser Glu Pro Ala Ala Asn Val Ser Ile Leu Thr Arg Ala Leu Gln
    530                 535                 540
Ala Asn Phe Ser Asp Phe Glu Asn Leu Arg Ala Lys Ser Leu Lys Leu
545                 550                 555                 560
Asn Ala Thr
```

<210> 33202
<211> 303
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (303)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 33202
Val Trp Arg Asp Asp Ser Ala Trp Leu Gly Leu Leu Val Ala Asp Asn
1               5                   10                  15
Leu Ser Arg Arg Asp Gln Ser Leu Ser Leu Ile Met Ser Thr Leu His
            20                  25                  30
Arg Leu Glu Thr Lys Leu Glu His Ile Ser Ser Ala Val Arg Asp Asn
        35                  40                  45
Met Gln Pro Leu His Gln Gln Met Leu His Ala Leu Glu Gly Leu Arg
    50                  55                  60
Asp Ala Ala Thr Pro Lys Gln Ser Ser Arg Ala Ser Asp Lys His Pro
65                  70                  75                  80
Ser Leu Ser Asn Ser Gln Ser Gln His Leu Thr Pro Glu Met Gly Gln
                85                  90                  95
Pro Asp Asp Phe Val Phe Asp Glu Arg Pro Asn Thr Thr Asp Ser Asn
            100                 105                 110
Gly His Val Ser Ile Ser Phe Ser Gln His Gly Val Ile Leu Trp Pro
        115                 120                 125
Gly Ala Arg Glu Ile Leu Pro Arg Lys Leu Leu Glu Ala His Glu Arg
    130                 135                 140
Leu Gly Arg Asn Tyr Val Ile Asp Leu Glu Met Lys Arg Pro His Leu
145                 150                 155                 160
Pro Met Tyr Ile Tyr Pro Tyr Pro Pro Gln Ala Gly Glu Asp Trp Leu
                165                 170                 175
Glu Thr Leu Pro Leu Ala Met Ile Lys Gly Leu Ser Asp Ala Phe Phe
            180                 185                 190
Ala Thr Phe Asn Pro Phe Thr Pro Ile Met Asp Lys Thr Phe Tyr Phe
        195                 200                 205
Ala Phe Thr Leu Gly Ala Ala Ile Glu Ser Gly Phe Gly Tyr Thr Ile
```

```
    210                 215                 220
Glu Thr Cys Leu Val Leu Asn Val Met Ala Leu Gly Cys Leu Ala Val
225                 230                 235                 240
Leu Ser His Gln Glu Gly Asn Tyr Pro Leu Pro Gly Thr Arg Ser Ser
                245                 250                 255
Arg Phe Glu Pro Pro Glu Trp Met Gly Val Ile His Glu Glu Pro Pro
            260                 265                 270
Gly Leu Arg Phe Phe Asn Glu Ala Arg Arg Arg Ile Gly Phe Leu Met
        275                 280                 285
Cys Asp Asn Asp Ile Gln Ser Cys Gln Phe Tyr Leu Leu Ser Xaa
    290                 295                 300
```

<210> 33203
<211> 77
<212> PRT
<213> A.fumigatus

<400> 33203

```
Lys Ala Lys Met Ser Ser Ile Arg Arg Val Ser Pro Thr Asp Leu Leu
1               5                   10                  15
Ser Leu Asn Leu Thr Asn Leu Asp Pro Leu Thr Glu Asn Tyr Asp Leu
            20                  25                  30
Gly Phe Tyr Leu Asn Tyr Leu Met Arg Trp Pro Ser Leu Phe Ser Ala
        35                  40                  45
Val Lys Asp Arg Thr Glu Gly Ile Val Gly Tyr Ser Thr Cys Lys Asn
    50                  55                  60
His Arg Ser His Thr Thr Ser Ala Arg Pro Ser His Arg
65                  70                  75
```

<210> 33204
<211> 222
<212> PRT
<213> A.fumigatus

<400> 33204

```
Trp Ser Phe Pro Ile Lys Ser Glu Asn Glu Phe His Pro Ala Arg Val
1               5                   10                  15
Pro Asn Gly Pro Pro Leu Pro Gln Pro His Gln Pro Arg Pro Ile Asp
            20                  25                  30
Arg Lys Leu Arg Pro Gly Leu Leu Pro Gln Leu Pro His Ala Met Ala
        35                  40                  45
Phe Thr Leu Gln Arg Cys Gln Arg Ser His Arg Arg His Ser Arg Ile
    50                  55                  60
Gln Tyr Val Gln Lys Ser Ser Gln Pro Tyr His Leu Cys Lys Thr Leu
65                  70                  75                  80
Ala Ser Leu Met Lys Ser Lys Thr Val Met Gly Lys Leu Glu Glu Gln
                85                  90                  95
His Pro Ser Met Arg His Ser Glu His Tyr Thr Pro Trp His Gly His
            100                 105                 110
Ile Thr Val Leu Thr Val Ala Pro Ala Trp Arg Arg Leu Gly His Ala
        115                 120                 125
Arg Arg Leu Thr Glu Arg Leu Glu His Gly Ser Asp Ile Asn Asp Ala
    130                 135                 140
Trp Phe Val Asp Leu Tyr Val Arg Ala Gly Asn Lys Val Ala Val Gly
145                 150                 155                 160
Met Tyr Lys Gly Met Gly Tyr Ser Val Phe Arg Arg Val Val Asn Tyr
```

```
                165                 170                 175
Tyr Ser Asp Asp Pro Thr Gly Met Ser Asp Ser Gly Glu Asp Ala Phe
            180                 185                 190
Asp Met Arg Lys Pro Cys Ser Arg Asp Lys Asn Leu Gln His Ile Arg
        195                 200                 205
Glu Asn Gly Glu Glu Phe Leu Val Asn Pro Glu Asp Val Ser
    210                 215                 220
```

<210> 33205
<211> 88
<212> PRT
<213> A.fumigatus

<400> 33205

```
Ala Ala Ile Met Asn Phe Ile Arg Leu Phe Thr Gly Gln Cys Phe Cys
1               5                   10                  15
Ser Met Phe Ala Asn Ala Asn Met Leu Tyr Lys Ser Val Asn Cys Leu
            20                  25                  30
Pro Pro Lys Ser Thr Leu Arg Thr Pro Tyr Leu Cys Ser Leu Glu Ala
        35                  40                  45
Phe Pro Leu Ile Gln Asp Thr Ile Gly Asn Asp Cys Phe Asn His Gly
    50                  55                  60
Arg Cys Gln Arg Cys Ser Glu Lys Pro Cys Cys Cys Phe Thr Arg Val
65                  70                  75                  80
His Ala Glu Gly Ser Cys Ala Ala
                85
```

<210> 33206
<211> 455
<212> PRT
<213> A.fumigatus

<400> 33206

```
Val Ala Cys Thr Pro Gln Glu Ser Ala Ser Phe Glu Val Phe Ser Cys
1               5                   10                  15
Leu Asp Leu Thr Val Tyr Asp Val Thr Lys Tyr Gln Lys Asp His Pro
            20                  25                  30
Gly Gly Ala Asp Val Leu Ala Glu Val Ala Gly Ser Asp Ala Thr Glu
        35                  40                  45
Ala Phe Glu Asp Ile Gly His Ser Glu Asp Ser Arg Glu Ile Leu Glu
    50                  55                  60
Glu Phe Leu Ile Gly Thr Leu Gln Gly Ala Lys Glu Tyr Val Ala Pro
65                  70                  75                  80
Lys Lys Val Arg Ile Ile Ala Gln Ser Pro Val Glu Thr Pro Ala Ser
                85                  90                  95
Ser Ser Ala Thr Arg Tyr Val Gly Ala Val Thr Ser Leu Leu Gly Ala
            100                 105                 110
Val Ala Ser Leu Ile Tyr Val Tyr Arg Arg Gly Ser Leu Tyr Ser Leu
        115                 120                 125
Asp Thr Thr Gly Ser Leu His Arg Tyr Leu Ser Gln Pro Leu Arg Gly
    130                 135                 140
Val Arg Leu Pro Gln Gly Gly Phe Ala Asn Gly Phe Leu Ala Ala Thr
145                 150                 155                 160
Leu Ile Cys Ala Ala Ala Gly Gly Val Ile Ala Arg Lys Ala Ala Lys
                165                 170                 175
Leu Thr Lys Ile Glu Ser Gly Phe Leu Gln Tyr Pro Pro His Ile Lys
```

```
            180                 185                 190
Ala Arg Lys Val Pro Arg Ala Asp Pro His Leu Leu Lys Gly Phe Leu
        195                 200                 205
Asp Ser Lys Glu Phe Gln Arg Leu Pro Leu Ile Gln Lys Asp Gln Leu
    210                 215                 220
Ser Ser Asn Val Tyr Arg Phe Val Phe Gly Leu Pro Asp Ser Asn Gly
225                 230                 235                 240
Val Ile Gly Leu Pro Ile Gly Gln His Val Ala Ile Arg Ala Val Ile
                245                 250                 255
Asp Gly Val Thr Val Ser Arg Ser Tyr Thr Pro Val Ser Asn Asn Leu
            260                 265                 270
Asp Arg Gly Arg Leu Glu Leu Val Val Lys Cys Tyr Pro Asp Gly Val
        275                 280                 285
Leu Ser Gly Lys Tyr Leu Ala Asn Leu Gln Val Gly Asp Glu Val Glu
    290                 295                 300
Phe Arg Gly Pro Lys Gly Ala Met Arg Tyr Lys Pro Gly Phe Cys Lys
305                 310                 315                 320
Lys Leu Gly Met Val Ala Gly Gly Thr Gly Ile Thr Pro Met Tyr Gln
                325                 330                 335
Leu Ile Arg Ala Ile Cys Glu Asp Glu Arg Asp Thr Thr Glu Ile Ser
            340                 345                 350
Leu Ile Tyr Ala Asn Arg Thr Glu Ala Asp Ile Leu Leu Arg Asp Glu
        355                 360                 365
Leu Glu Gln Phe Ala Arg Lys Tyr Pro Lys Asn Phe Lys Leu Trp Tyr
    370                 375                 380
Met Leu Asp Thr Ala Pro Glu Asn Trp Ala Tyr Gly Ser Gly Phe Val
385                 390                 395                 400
Asn Gln Glu Val Leu Ser Glu Arg Leu Phe Ala Pro Ser Pro Asp Thr
                405                 410                 415
Lys Val Leu Leu Cys Gly Pro Pro Gly Met Val Ser Ala Thr Lys Lys
            420                 425                 430
Met Leu Ala Ala Ile Gly Phe Gln Lys Pro Gly Pro Val Ser Lys Met
        435                 440                 445
Thr Asp Gln Ile Phe Cys Phe
    450                 455

<210> 33207
<211> 68
<212> PRT
<213> A.fumigatus

<400> 33207
Phe Lys Ile Pro Leu Ala Met Thr Val Ser Thr Met Ala Asp Val Ser
1               5                   10                  15
Gly Ala Gln Lys Ser Pro Ala Val Ala Leu Pro Glu Tyr Thr Leu Lys
            20                  25                  30
Glu Val Ala Leu His Asn Arg Lys Asp Asp Asn Trp Ile Val Ile His
        35                  40                  45
Gly His Gly Lys Ser His Ala Pro Leu Arg Arg Val Gln Ala Leu Lys
    50                  55                  60
Ser Ser Val Ala
65

<210> 33208
<211> 65
<212> PRT
```

<213> A.fumigatus

<400> 33208
His Gly Tyr Leu Ser Ser Asn Ser Pro Lys Gly Val His Lys Ile Gly
1 5 10 15
Arg Lys Leu Tyr Lys Met Ser Thr Val Phe Thr Val Val Ser Thr Ser
20 25 30
Leu Lys Gly Arg Leu Phe Asp Ala Thr His Asp Val Leu Asp Ile Phe
35 40 45
Leu Ile Asp Asp Tyr Thr Ala Phe Arg Ala Ser Gly Phe Gly Ala Gln
50 55 60
Phe
65

<210> 33209
<211> 127
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (4),(7),(19)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33209
Arg Pro Thr Xaa Glu Pro Xaa Gln Asn Leu Asn Pro Thr Pro Ala His
1 5 10 15
Ala Ser Xaa Gly Ser Phe Ser Val Ser Pro Pro Ser Gly Leu Asp Gly
20 25 30
Ser Val Asn Gln Ser Thr Thr Phe Gly Tyr Glu Asp Ser Pro Tyr Leu
35 40 45
Asp Leu Asn Phe Asp Phe Asp Leu Asp Phe Leu Gly Asn Glu Ser Leu
50 55 60
Ile Gly Asp Leu Pro Pro Ser Leu Pro Ser Thr Glu Asp Tyr Glu Pro
65 70 75 80
Gly Asp Lys Arg Lys Asp Ile Asp Gly Gln Val Asn Asp Lys Glu Asp
85 90 95
Ser Gly Lys Lys Arg Arg Glu Ser Asp Glu Lys Ala Ala Lys Lys Pro
100 105 110
Gly Arg Lys Pro Leu Thr Ser Glu Pro Thr Ser Val Cys Phe Leu
115 120 125

<210> 33210
<211> 71
<212> PRT
<213> A.fumigatus

<400> 33210
Asp Met Val Cys Leu Ile Ser Ser Leu Thr Ala Leu His Ser Leu Ala
1 5 10 15
Asn Tyr Leu Cys Arg Arg Asp Arg Leu Gln Ser Met Glu Lys Phe Arg
20 25 30
Asn Gly Glu Ile Asp Val Asp Asn Leu Cys Ser Glu Leu Arg Thr Lys
35 40 45
Ala Arg Cys Ser Glu Gly Gly Val Val Val Asn Gln Lys Asp Val Glu
50 55 60

Asp Ile Met Gly Arg Val Lys
65 70

<210> 33211
<211> 411
<212> PRT
<213> A.fumigatus

<400> 33211
Pro Val Gly Gln Lys Arg Lys Ala Gln Asn Arg Ala Ala Gln Arg Ala
1 5 10 15
Phe Arg Glu Arg Lys Glu Lys His Leu Lys Asp Leu Glu Ala Lys Val
20 25 30
Glu Glu Leu Gln Lys Ala Ser Asp Asn Ala Asn Gln Glu Asn Gly Leu
35 40 45
Leu Arg Ala Gln Val Glu Arg Leu Gln Leu Glu Leu Lys Glu Tyr Arg
50 55 60
Lys Arg Leu Ser Trp Val Thr Ser Thr Ser Gly Leu Ser Pro Val Asn
65 70 75 80
Ala Ile Pro Gly Ala Tyr Ser Lys Gly Met Tyr Gly Leu Asn Asn Asn
85 90 95
Glu Phe Met Phe Asp Phe Pro Lys Phe Gly Asp Leu Pro Gly Ser His
100 105 110
Leu Phe Thr Asn Thr Gln Thr Ser Lys Ser Asn Gln Asn Lys Ala Lys
115 120 125
Asp Asn Pro Thr Ala Thr Pro Arg Ile Glu Ala Gln Val Pro Gly Val
130 135 140
Leu Asn Arg Asn Asp Leu Lys Ile Ser Ser Pro Asn Gly Leu Ser Asn
145 150 155 160
Gly Pro Ser Pro Ala Lys Ser Thr Pro Ser Gly Gln Thr Pro Asn Ser
165 170 175
Gln Thr Ser Thr Arg Pro Gly Ser Gly Thr Leu Asn Gly Ala Val Asp
180 185 190
Asn Asn Gly Ala Ala Arg Gly Tyr Gln Val Asn Ser Ser Tyr Ser Ala
195 200 205
Ser Thr Lys Gln Ala Thr His Asp Thr Pro Ser Ser Asp Ser Pro Ser
210 215 220
Ser Ser Ser Asp Ser His Gln Ser Gln Leu Leu Ser Ser Asn Gly Thr
225 230 235 240
Ser Pro Glu Pro Ser Leu His Ser Pro Ala Val Lys Ala Thr Glu Ser
245 250 255
Ser Thr Pro His Ala Cys Thr Tyr Thr Thr Ile Asn Gly Glu Glu Ser
260 265 270
Phe Cys Ala Gln Leu Ser Met Ala Cys Gly Asn Ile Asn Asn Pro Ile
275 280 285
Pro Ala Val Arg Gln Asn Ser Glu Ser Ala Ser Asn Thr Pro Ser His
290 295 300
Ala Asn Ser Ser Asp Lys Ala Leu Gly Leu Asp Phe Phe Ala Gln Gln
305 310 315 320
Asn Gly Gly Gln Phe Asp Pro Val Leu Phe Gly Asp Trp Arg Glu Pro
325 330 335
Gln Asp Ala Ile Leu Ser Gln Asp Phe Gly Thr Phe Phe Asp Asp Ala
340 345 350
Phe Pro Leu Pro Asp Leu Gly Ser Pro Ser His Asn Phe Ser Glu Ala
355 360 365
Thr Lys Gln Pro Ala Ala Pro Lys Lys Asp Leu Ile Ala Glu Ile Asp

```
    370                 375                 380
Ser Lys Leu Asp Glu Asp Glu Glu Val Val Pro Gly Glu Asp Lys Ser
385                 390                 395                 400
Gln Met Leu Thr Cys Asn Lys Ile Trp Tyr Ala
                405                 410
```

<210> 33212
<211> 144
<212> PRT
<213> A.fumigatus

<400> 33212

```
Thr Gln Arg Ala Gly Glu Ile Gly Arg Trp Gln Gly His Asn Thr Glu
1               5                   10                  15
Glu Gln Ala Asn Glu Glu Met Ile Ser Arg Ser Gly Leu Ser Thr Arg
            20                  25                  30
Arg Gly Gly Leu Val Thr Gly Gly Cys Arg Cys Arg Cys Cys Arg Arg
        35                  40                  45
Val Arg Gly Ala Ser Leu Ala Glu Ala Thr Thr Ala Thr Ser Ser Thr
    50                  55                  60
Thr Ser Thr Ala Val Gly Thr Thr Ala Ala Ser Ala Ser Thr Glu Thr
65                  70                  75                  80
Thr Thr Ser Ser Ala Ser Leu Ala Val Thr Ser Thr Ser Ala Leu Val
                85                  90                  95
Ser Ala Leu Gly Cys Val Gly Ala Ser Val Ala Asn Leu Pro Gly Ala
            100                 105                 110
Gly Ile Thr Thr Val Gly Lys Pro Arg Ser Ser Lys Asn Phe Arg Leu
        115                 120                 125
Gly Leu Pro Ser Trp Pro Arg Gly Leu Gly Phe Leu Cys Ser Ala Gly
    130                 135                 140
```

<210> 33213
<211> 462
<212> PRT
<213> A.fumigatus

<400> 33213

```
Pro Thr Pro Arg His Met Tyr Ser Ser Gly Gly Ala Glu Tyr Gln Ser
1               5                   10                  15
Pro Pro Val Glu Gly Ala His Arg Thr Asp Val Gln Thr Glu Thr Thr
            20                  25                  30
Glu Lys Ser Val Glu Leu Ser Gln Ala Thr Pro Asn Glu Asn Met Thr
        35                  40                  45
Gln Glu Val Ala Glu Ala Gly Asp Val Val Met Glu Asp Ser Glu Ala
    50                  55                  60
Val Ala Ser Ala Pro Ala Thr Glu Pro Ile Pro Leu Arg Glu Thr Met
65                  70                  75                  80
Ala Glu Gln Ala Pro Ser Ser Ala Val Lys Pro Gln Pro Ala Asp Thr
                85                  90                  95
Glu Arg Asp Ser Asn Glu Val Asp Leu Leu Gly Ser Leu Glu Ala Ser
            100                 105                 110
Leu Gly Gly Ala Val Arg Asp Ala Gln Thr Gly Gly Ser Ala Ser Leu
        115                 120                 125
Gln Thr Asp Ala Gln Val Gly Ala Ile Ala Ala Glu Ser Thr Ser Thr
    130                 135                 140
Asn Ala Ala Arg Glu Val Gly Glu Thr Val Thr Asp Gly Pro Leu His
```

```
145                 150                 155                 160
Gln Pro Ser Glu Asn Val Glu Glu Gln His Ala Lys Glu Ser Pro Glu
                165                 170                 175
Gln Ile Val Glu Ser Ala Pro Val Ala Ala Glu Gln Lys Ala Ile Glu
            180                 185                 190
Gln Pro Ser Glu Pro Ser Leu Glu Pro Ser Thr Met Ser Ile Pro Glu
        195                 200                 205
Gln Pro Glu Gln Glu Met Thr Glu Pro Thr Ala Glu Thr Val Ala Asn
    210                 215                 220
Asp Thr Pro Glu Glu Leu Asn Gln Glu Ala Pro Thr Ala Gln Pro Arg
225                 230                 235                 240
Glu Ser Thr Tyr Lys Ala Leu Ser Ala Val Asp Thr Glu Pro Val Ala
                245                 250                 255
Gln Pro Ala Glu Asn Glu Ala Pro Lys Ser Ala Thr Pro Gln Val Ile
            260                 265                 270
Glu Pro Ala Thr Asp Ser Ser Ile Val Pro Ser Thr Glu Pro Ser Ala
        275                 280                 285
Glu Ala Pro Ser Asp Gln Ser Thr Ala Pro Pro Thr Asp Gln Gln Pro
    290                 295                 300
Pro Gly Pro Ser Ser Glu Pro His Ala Glu Lys Pro Ala Gln Ala Ser
305                 310                 315                 320
Pro Glu Gln Ser Thr Arg Pro Thr Glu Pro Leu Pro Pro Ser Thr Thr
                325                 330                 335
Glu Gln Thr Pro Thr Gln Pro Thr Gln Pro Ser Pro Glu His Met Ala
            340                 345                 350
Pro Pro Thr Glu Ser Leu Thr Pro Pro Ser Pro Glu Phe Glu Gln Ile
        355                 360                 365
Glu Glu Ser Ser Gln Asp Gln Pro Gln Asn Gln Ala Pro Val Thr Asp
    370                 375                 380
Ile Gln Lys Pro Gln Pro Ala Pro Leu Asp Lys Ser Gln Thr Pro Glu
385                 390                 395                 400
Ala Pro Ser Ala Pro Ala Pro Ser Ala Pro Glu Ile Thr Glu Pro Pro
                405                 410                 415
Thr Gln Pro Ser Asp Ala Ala Pro Ser Asp Asn Asp Ala Ala Pro Gln
            420                 425                 430
Pro Val Ala Glu Gln Glu Lys Ala Glu Pro Glu Ser Lys Glu Gly Gly
        435                 440                 445
Glu Glu Ala Pro Ala Pro Ser Thr Ser Asp Leu Thr Ala Ala
    450                 455                 460
```

<210> 33214
<211> 566
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (43)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33214

```
Arg Val Ala Pro Leu Thr Ser Thr Ala Ile Gly Asn Leu Lys Thr Thr
1               5                   10                  15
Leu Cys Glu Glu Met Lys Arg Ala Asp Ala Glu Arg Arg Leu Cys Gly
            20                  25                  30
Arg Ser Leu Gly Tyr Ser Ser Leu Arg Leu Xaa Pro Lys Thr Thr Gly
```

```
        35                  40                  45
Val Arg Pro Ile Leu Asn Leu Arg Arg Arg Asn Leu Gln Pro Gly Trp
    50                  55                  60
Ala Gly Lys Ala Pro Phe Leu Gly Pro Ser Ile Asn Ser Thr Met Thr
65                  70                  75                  80
Pro Ile Phe Asn Val Leu Lys Tyr Glu Thr Ala Arg Asn Pro Ala Ser
                85                  90                  95
Leu Gly Ser Thr Leu Ser Phe Val Gly Glu Ile His Thr Arg Leu Lys
            100                 105                 110
Ser Phe Lys Glu Arg Leu Ser Gln Ser His Ser Ser Asp Arg Arg Gln
        115                 120                 125
Arg Leu Tyr Phe Val Lys Leu Asp Ile Gln Ser Cys Phe Asp Thr Ile
    130                 135                 140
Pro Gln Lys Glu Leu Ile Pro Leu Val Glu Ser Leu Phe Ser Glu Glu
145                 150                 155                 160
Gly Tyr Gln Ile Gly Lys His Val Glu Val Arg Pro Pro Asp Glu Phe
                165                 170                 175
Ser Ser Met Trp Pro Val Gln Glu Ser Gln Gln Ser Lys Ala Leu Arg
            180                 185                 190
Lys Tyr Val Gly Arg Ala Ala Pro Val Ser Lys Ala Gln Ala Leu Thr
        195                 200                 205
Asp Ala Ile Thr Asp Gly Gly Ile Ser His Arg Arg Asn Thr Val Phe
    210                 215                 220
Val Asp Thr Pro Ala His Lys Glu Tyr Ser Gly Asp Tyr Leu Leu Asp
225                 230                 235                 240
Leu Leu Asp Glu His Ile Arg Tyr Asn Leu Val Lys Val Gly Arg Lys
                245                 250                 255
Tyr Phe Arg Gln Arg Asn Gly Ile Pro Gln Gly Ser Ile Leu Ser Ser
            260                 265                 270
Val Leu Cys Asn Leu Phe Tyr Ala Gln Met Glu Arg Glu Ser Leu Ser
        275                 280                 285
Phe Leu Asp Pro Ser Glu Ala Val Leu Leu Arg Leu Val Asp Asp Phe
    290                 295                 300
Leu Leu Ile Thr Ile Asn Ser Lys Leu Ala Met Arg Phe Leu Gln Val
305                 310                 315                 320
Met Leu Lys Gly Gln Pro Lys Tyr Gly Ile Ser Ile Asn Pro Ala Lys
                325                 330                 335
Ser Leu Val Asn Phe Ser Ala Met Val Asp Gly Val Gln Ile Pro Arg
            340                 345                 350
Leu Glu Gly Ser His Leu Phe Pro Tyr Cys Gly Ser Leu Ile Asp Thr
        355                 360                 365
Arg Thr Leu Glu Ile Tyr Arg Asp Gln Asp Arg Ile Leu Glu Gly Thr
    370                 375                 380
Asp Ser Ala Ala Gly Thr Ile Ser Ser Ser Leu Thr Val Glu Phe Thr
385                 390                 395                 400
Arg Ala Pro Gly Arg Ser Leu His Arg Lys Val Leu Ser Ser Phe Lys
                405                 410                 415
Leu Gln Met His Pro Met Tyr Leu Asp Thr Lys His Asn Ser Leu Thr
            420                 425                 430
Val Val Leu Trp Asn Leu Tyr Ala Asn Leu Val Thr Ser Ala Met Lys
        435                 440                 445
Met Tyr Arg Tyr Met Lys Ala Leu Pro His Arg Ala His Pro Thr Pro
    450                 455                 460
Glu Val Val Ile Arg Val Ile Arg Asp Leu Ile Glu Leu Ala His His
465                 470                 475                 480
Met Met Arg Ala Arg Arg Glu Leu Lys Ser Arg Asp Ser Cys Ser Pro
```

```
                485                 490                 495
Tyr Met Cys Leu Val Gln Gln Gln Gln Val Arg Tyr Leu Ala Ala Ala
            500                 505                 510
Ala Phe Arg Phe Val Leu Gly Arg Lys Gln Thr Lys Tyr Ala Lys Val
        515                 520                 525
Leu Arg Trp Leu Glu Gln Val Trp Lys Ala Ala Arg Pro Gln Ser Asp
    530                 535                 540
Gly Lys Ala Ala Arg Leu Ala Glu Val Val Arg Asn Gly Asn Ser Val
545                 550                 555                 560
Phe Ala Ser Trp Arg Phe
                565
```

<210> 33215
<211> 65
<212> PRT
<213> A.fumigatus

<400> 33215

```
Gly Ile Asn Glu Ser Pro Pro Thr Ala Trp Asp His Phe Thr Leu Leu
1               5                   10                  15
Ser Asp Tyr Ser Ile Pro Phe Arg Ser Thr Trp Lys Tyr Gly Ile Cys
            20                  25                  30
Leu Pro Leu Ile Asp Val Tyr Ile Ala Pro Val Met Phe His Tyr Leu
        35                  40                  45
Gln Pro Thr Ser Gly Phe Pro Trp Tyr Val Ser Leu Glu Arg Thr Met
    50                  55                  60
Glu
65
```

<210> 33216
<211> 95
<212> PRT
<213> A.fumigatus

<400> 33216

```
Phe Phe Leu His His Ala Thr Tyr Thr Tyr Leu Tyr Pro Asp Ser Ile
1               5                   10                  15
Ala Thr Leu Leu Leu Thr Leu Pro Phe Arg Leu Leu Asp Ser Cys Cys
            20                  25                  30
Ile Gln Tyr Leu Ile Asp Cys Asn Ile Cys Asp Met Ser Ser Ile Glu
        35                  40                  45
Lys His Lys Gly His Val Asp Asp Asp Ala Gln Leu Ala Ala Met Gly
    50                  55                  60
His Lys Ala Glu Leu Asp Arg Asn Phe Ser Met Leu Tyr Glu Phe Phe
65                  70                  75                  80
Phe Phe Leu Asp Asp Asp Lys Lys Ala Cys Leu Leu Ser Asp Tyr
                85                  90                  95
```

<210> 33217
<211> 269
<212> PRT
<213> A.fumigatus

<400> 33217

```
Pro Pro Gln Leu Leu His Ser Ala Ser Arg Pro Cys Phe Val Ala Leu
1               5                   10                  15
```

```
Gly Ser Val Gly Phe Trp Ser Glu Phe Asp Phe Thr Ser Pro Leu Asn
            20                  25                  30
Leu Lys Cys Ser Lys Met Val Phe Ala Leu Asp Thr Ala Thr Glu Ala
        35                  40                  45
Asp Ala Pro Arg Ile Ala Asp Ile His Met Ala Ala Phe His Thr Asn
    50                  55                  60
Gly Met Leu Leu Ala Gln Phe Pro Thr Pro Ala Val Arg Lys Gly Leu
65                  70                  75                  80
Trp Thr Ser Leu Val Asp Lys Val Val Lys Glu Ile Arg Asp Pro Gln
                85                  90                  95
Trp Glu Val Leu Val Ala Arg Glu Ala Asp Asp Arg Val Val Ser Phe
            100                 105                 110
Ala Lys Trp Cys Leu Pro Leu Ser Glu Ser Thr Val Tyr Glu Glu Glu
        115                 120                 125
Pro Trp Val Trp Pro Glu Gly Thr Asn Met Ala Ile Leu Asn Gly Trp
    130                 135                 140
Ala Lys Lys Val Glu Gln Ala Ala Lys Glu Ile Met Gly Lys Thr Pro
145                 150                 155                 160
Cys Tyr Arg Thr Phe Cys Ala Ile Arg Leu Ser Asp Cys Asp Cys Leu
                165                 170                 175
His Pro Pro Gly Leu Ser Phe Ile Ala Thr Asp Pro Ser Tyr Ala Leu
            180                 185                 190
Arg Gly Ala Gly Ser Leu Leu Val Asn Trp Gly Ile Glu Arg Ser Lys
        195                 200                 205
Glu Glu Asn Ile Pro Ile Ala Leu Glu Ser Thr Leu Asp Ala Val Pro
    210                 215                 220
Phe Tyr Gln Arg Leu Gly Phe Gln Thr Glu Ala Arg Ile Ser Met Pro
225                 230                 235                 240
Leu Glu Gly Ile Gly Lys Asp Gly Glu Ala Ile Leu Tyr Glu Glu Glu
                245                 250                 255
Cys Leu Val Tyr Arg Pro Lys Ala Arg Ile Ser Cys Glu
            260                 265
```

<210> 33218
<211> 204
<212> PRT
<213> A.fumigatus

<400> 33218

```
Gly Ser Ser Met Ser Asp Asp Ser His Trp Leu Ser Leu Thr Ser Thr
1               5                   10                  15
His Cys Arg Ser Arg Ala Pro Arg Ser Arg Asn Phe Pro Phe Pro Ser
            20                  25                  30
Asp Ile Ser Gly Thr Val Gly Asp Pro Gln Leu Ala Ile Ala Arg Thr
        35                  40                  45
Ala Ser Phe Lys Met Gln Lys Ile Ile Arg Arg Thr Ala Leu Ala Arg
    50                  55                  60
Asn Gln Ala Gln Arg Lys Ala Ile Arg Ala Ala Lys Ala Ala Glu Arg
65                  70                  75                  80
Glu Glu Phe Lys Asp Ala Leu Arg Gln Arg Phe Ala Phe Asn Arg Ile
                85                  90                  95
Glu Leu Asp Asn Val Arg Ala Glu Arg Ile Arg Arg Arg Glu Asp Trp
            100                 105                 110
Leu Arg Gly Pro Leu Ala Pro Lys Arg Asp Ala Gly Leu Asp Ala Lys
        115                 120                 125
Thr Phe Gly Ser Leu Ser Pro Gln Ala Met Asn Pro Pro Thr Ile Pro
```

```
    130                 135                 140
Lys His Leu Arg Arg Lys Tyr Ile Asn Ile Ala Ala Gly Asp Arg Val
145                 150                 155                 160
Cys Ile Met Lys Gly Arg Asp Lys Gly Lys Ile Gly Glu Val Ile Lys
                165                 170                 175
Val Asp Pro Asn Asn Glu Thr Val Met Val Lys Asp Leu Asn Met Val
            180                 185                 190
Arg Phe His Gly Cys Ile Arg Ser Met Ser Thr Tyr
        195                 200
```

<210> 33219
<211> 75
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (26),(34)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33219

```
Val Asn Ile Asn Ile Phe Pro Leu Thr Glu Asn Thr Pro Gln His Val
1               5                   10                  15
Pro Leu Phe Glu Asp Ile Ala Lys Tyr Xaa Ser Ser Pro Leu Ala Arg
            20                  25                  30
Gln Xaa Ile Pro Pro Thr Gln Pro Val Glu Ala Asp Glu Ala Pro Ala
        35                  40                  45
Ala Lys Lys Arg Lys Leu Gln Asn Gly Asn Pro Ala Gly Asp Thr Gln
    50                  55                  60
Val Phe Thr Arg Gly Phe Tyr Ser Ala Gln Arg
65                  70                  75
```

<210> 33220
<211> 123
<212> PRT
<213> A.fumigatus

<400> 33220

```
Lys Met Arg Asn Gly Thr His Ser Val Trp Glu Val Glu Thr Pro Thr
1               5                   10                  15
Trp Ile Leu Ser Leu His Asn Pro Pro Phe Pro Pro Ser Val Leu Asp
            20                  25                  30
Glu Leu Arg Asn Pro Phe Ser Lys Tyr Arg Thr Arg His Asp Pro Glu
        35                  40                  45
Trp Val Glu Ser Lys Lys Met Glu Asp Leu Arg Lys Glu Tyr Leu Gln
    50                  55                  60
Ser Arg Ser Leu Met Thr Pro Lys Gly Glu Phe Leu Ala Met Leu Arg
65                  70                  75                  80
Ala Lys Lys Ala Glu Arg Met Ser Ala Arg Arg Asp Ala Asp Gly Asn
                85                  90                  95
Tyr Ile Met Asp Asp Gln Thr Ala Gly Phe Ile Ala Asn Phe Met Gln
            100                 105                 110
Gln Asn Ala Ala Lys Lys Ala Gly Ser Ser Ala
        115                 120
```

<210> 33221

<211> 73
<212> PRT
<213> A.fumigatus

<400> 33221
Phe Ile Val Met Ser Phe Ala Thr Ile Asn Arg Ser Ala Thr Lys Thr
1 5 10 15
Leu Ser Thr Ser Ile Pro Ala Ile Glu Asp Ala Phe Ala Ala Glu Pro
20 25 30
Ser Leu Lys Lys Arg Val Tyr Asp Ala Ile Gly Thr His Ile Pro Thr
35 40 45
Ile Phe Gly Phe Cys Gln Ala Ser Ala Val Thr Arg Cys Cys Cys Asp
50 55 60
Tyr Lys Leu Thr Leu Ile Phe Ser Leu
65 70

<210> 33222
<211> 293
<212> PRT
<213> A.fumigatus

<400> 33222
Asn Ser Ala Tyr Ala Ala Val Val Asp Phe Ile Arg Lys Val His Arg
1 5 10 15
Thr Asn Ser Thr Glu Arg Leu Ala Lys Arg Asp Gly Leu Asp Asn Gln
20 25 30
Met Asp Ser Ile Thr Gln Leu Glu Ala Arg Ala Asn Glu Val Ala Ala
35 40 45
Ala Ala Arg Arg Leu Ala Glu Tyr Cys Arg Asn Ala Arg Val Asp Gly
50 55 60
Ala Cys Leu Pro Ala Val Val Pro Ser Glu Ala Pro Arg Ala Ile Arg
65 70 75 80
Glu Ile Gln Arg Leu Leu Leu Ser Asn Val Asp His Leu Gln Ile Leu
85 90 95
Leu Thr Glu Pro Ala Asp Leu Val Gln Arg Leu Ala Val Gln Ser Gln
100 105 110
Leu Leu Ser Cys Leu Gln Trp Leu Gly Glu Phe Gln Val Leu Ala Cys
115 120 125
Leu Pro Leu Thr Asp Thr Val Ser Ile Ala Asp Leu Ala Arg Leu Ser
130 135 140
Gly Val Pro Glu Ala Gln Leu Ala Arg Ile Ile Arg Phe Thr Ile Thr
145 150 155 160
Ile Gly Phe Leu Gln Glu Pro Gln Arg Gly His Val Ala His Ser Pro
165 170 175
Leu Ser Ser Leu Phe Val Ser Arg Pro Ser Leu Arg Asp Ala Val Met
180 185 190
Phe Leu Ala Asp Ser Ala Ala Pro Thr Ala Leu Gln Met Ala Ser Ala
195 200 205
Thr Gly Arg Phe Gly Asp Thr Val Ala Ser Glu Thr Asp Thr Ala Tyr
210 215 220
Asn Ile Ala Phe Asp His Arg Asp Pro Phe Tyr Phe Ala Cys Glu Gln
225 230 235 240
Arg Pro Lys Leu Gln Arg Arg Trp Ser Ala Tyr Leu Gln Tyr Thr Gly
245 250 255
Gly Asp Ala Arg Asp Leu Thr Gln Gln Val Leu Ser Arg Val Asp Trp
260 265 270

```
Phe Asn Leu Asn Asn Ala Cys Val Val Glu Val Asn Thr Ala Gly Met
        275                 280                 285
Trp Ser Gln Trp Val
    290
```

<210> 33223
<211> 332
<212> PRT
<213> A.fumigatus

<400> 33223

```
Ile Leu Ser Asp Ala Ala Ser His Leu Val Leu Glu Arg Asn Trp Met
1               5                  10                  15
Arg Ser Pro Ala Ser Ser Arg Arg Ala Ser Ala Leu His Arg Leu Cys
            20                  25                  30
Asp Ser Cys Arg Ala Cys Gly Leu Ser Lys Val Arg Cys Ser Lys Glu
        35                  40                  45
Lys Pro Thr Cys Ser Arg Cys Arg Arg Arg Gly Thr Val Cys Glu Tyr
    50                  55                  60
Val Val Thr Lys Arg Pro Gly Arg Lys Pro Asp Ser Arg Ser Glu Val
65                  70                  75                  80
Glu Pro Glu Pro Gly His Leu Ser His Pro Leu Pro Ser Pro Glu Ser
                85                  90                  95
Ser Thr Ala Ile Ser Gln Gly Asn Leu Pro Asp Pro Asp Ala Phe Asp
            100                 105                 110
Pro Leu Phe Ala Leu Pro Glu Pro Phe Asp Ser Thr Pro Glu Leu His
        115                 120                 125
Ser Gly Pro Leu Ser Thr Val Asp Ser Ser Leu Ser Ser Ala Leu Thr
    130                 135                 140
Thr Trp Cys Pro Asp Phe Asp Asp Phe Phe Ser Phe Pro Val Ser Thr
145                 150                 155                 160
Glu Asp Thr Leu Ser Gly Asp Arg Gly Ala Val Tyr Asp Gly Thr Ile
                165                 170                 175
Lys His Pro Pro Asn Leu Arg Arg His Ser Glu Ser Pro Pro Ala Val
            180                 185                 190
Pro Asp Asp Thr Ile Tyr Leu Phe Gly Lys Pro Val Asp Pro Ala Pro
        195                 200                 205
Pro Asp Gln Ser Leu Pro Ala Thr Thr Thr Ile Gly Arg Arg Ala Ser
    210                 215                 220
Pro Pro Ser Gly Arg Glu Ser Glu Ala Gly Ser Arg Arg Leu Ser Cys
225                 230                 235                 240
Arg Cys Leu Ile Arg Ala Leu Asp Leu Leu Lys His Phe Glu Val Ile
                245                 250                 255
Arg Arg Glu Ala Glu Ile Glu Ser Ser Leu Pro Ser Ile Asp Ala Val
            260                 265                 270
Val Glu Val Asn Lys Gln Thr Thr Glu Ala Ile Thr Gly Met Leu Gln
        275                 280                 285
Cys Pro Cys Ser Gln Lys Asp Gly Tyr Leu Leu Val Leu Leu Ala Leu
    290                 295                 300
Ile Val Cys Lys Ile Leu Asp Arg Tyr Ala Ala Ala Ala Ile Pro Phe
305                 310                 315                 320
Ser Pro Pro Arg Val Glu Gly Ser Thr Leu Cys Val
                325                 330
```

<210> 33224
<211> 163

<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (26),(40),(50),(66),(83)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33224
Leu Pro Gly Arg Gly Asp Phe Arg His Gly Arg Gly Ile Lys Phe Arg
1 5 10 15
Gln Asp Pro Arg Ile Val Leu Asn Gly Xaa Phe Ser Ala Pro Asp Ala
20 25 30
Asp Ala Arg Lys Phe Thr Pro Xaa Thr Ser Ala Pro Ala Pro Ala Leu
35 40 45
Pro Xaa Gly Ser Glu Ala Leu Gln Pro Lys Ala Ala Pro Ala Ser Thr
50 55 60
Pro Xaa Ala Pro Ala Ser Ala Asp Ala Pro Thr Thr Asn Gly Val Lys
65 70 75 80
Ala Ala Xaa Glu Pro Asp Ala Asn Ser Thr Ala Ala Lys Ala Ile Ala
85 90 95
Leu Val Ala Thr Glu Ala Gly Leu Gly Leu Ser Asp Leu Lys Asp Ser
100 105 110
Ala Ser Phe Ser Ser Leu Gly Ile Asp Ser Leu Met Ser Leu Val Ile
115 120 125
Ser Glu Lys Phe Arg Glu Thr Leu Gly Val Thr Val Thr Gly Ser Leu
130 135 140
Phe Leu Glu Tyr Pro Thr Val Gly Asp Leu Lys Ser Trp Leu Leu Glu
145 150 155 160
Tyr Tyr Ser

<210> 33225
<211> 80
<212> PRT
<213> A.fumigatus

<400> 33225
Gln Pro Leu Glu Asp Asp Phe Arg Val Tyr Val Leu Pro Pro Ser Trp
1 5 10 15
Met Thr Trp Tyr Lys Met Gly Leu Ser Thr Tyr Asn Val Thr Ala Met
20 25 30
Gly Ala Ala Tyr Gly Thr Ala Lys Ser Gly Ile Gly Ile Ser Gly Val
35 40 45
Gly Thr Phe Arg Pro Asp Leu Ile Met Lys Val Cys Ser Phe His Pro
50 55 60
Ala Ser Cys Gly Glu Ile Ile Pro Ser Arg Cys Ser Asn Ser Leu Thr
65 70 75 80

<210> 33226
<211> 63
<212> PRT
<213> A.fumigatus

<400> 33226
His Phe Leu Glu Gly Val Arg Ala Tyr Met Gln Gln Ser Arg Val Tyr

```
1               5                   10                  15
Val Gly Met Ile Leu Ile Leu Ile Phe Gly Glu Val Leu Gly Leu Tyr
            20                  25                  30
Gly Phe Val Phe Pro Pro Ile Asp Asn Lys Asp Ile Ser Val Leu Thr
        35                  40                  45
Ala Val Arg Leu Ile Val Gly Leu Ile Leu Asn Ser Lys Ser Lys
    50                  55                  60
```

<210> 33227
<211> 303
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (146)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33227

```
Arg Asp Arg Met Ala Asp Leu Gly Gly Gln Gln Gly Arg Asn Tyr Arg
1               5                   10                  15
Pro Tyr Gly His Ala Ser Ser Phe Gln Arg Asp Ala Ala Phe Ser Glu
            20                  25                  30
Ile Phe Gly Gly Ala Pro Pro Pro Gly Arg Ser Gln Thr Met Asn Ser
        35                  40                  45
Gln Thr Pro Gln Phe Ser Gln Asp Arg Ala His Thr Met Ser Ser His
    50                  55                  60
Val Pro His Pro Gln Met Gln Arg Pro Pro Pro Gln Pro Ala Arg Gln
65                  70                  75                  80
Gly Pro Asn Gly Tyr Thr Pro Ala Ala Pro Asn Gly His Tyr Gln Ala
                85                  90                  95
Tyr Pro Gly Pro Ala Ala Met Ala Gln Gln Ser Ser His Asn Pro Pro
            100                 105                 110
Arg Pro Tyr Pro Gly Arg Tyr Val Tyr Pro Gln Pro Gln Arg Leu Asp
        115                 120                 125
Ser Arg Pro Ala Pro Gly Pro Gln Tyr Pro Asp Val Lys Gly Tyr Gly
    130                 135                 140
Arg Xaa Met Pro Pro Pro Ala Leu Asn Ser Asp Ala Tyr Arg Ser Arg
145                 150                 155                 160
Ser Met Ala Arg Met Gly Gly Pro Pro Gly Tyr Gln Gln Pro Pro Leu
                165                 170                 175
Ser Ser Phe Asn His Thr Ser Ala Ser Ala Phe Arg Gln Gln Pro Tyr
            180                 185                 190
Ser Ser Thr Thr Pro Val Thr Asp Gln Gly Arg Val Val Pro Val Arg
        195                 200                 205
His Ala Asn Glu Arg Ala Met Ser Leu Thr Ser Tyr Ser Met Asp Arg
    210                 215                 220
Asp His Ser His Thr Thr Gln Thr Gly Arg Val Ile Pro Thr Arg Arg
225                 230                 235                 240
Gln Pro Ser Gly Pro Ser Gln Pro Pro Thr Arg His Phe Glu Glu Glu
                245                 250                 255
Pro Ala Ile Val His His Val Asn Gly Arg Pro Arg Pro Pro Ser Asp
            260                 265                 270
Gly Ser Thr Asn Ser Arg Val Met Ser Met Ala Ser Thr Ile Val Pro
        275                 280                 285
Asp Arg Met Leu Thr Thr Gly Val Lys Gly Ser Ala Leu Cys Val
```

290 295 300

<210> 33228
<211> 474
<212> PRT
<213> A.fumigatus

<400> 33228
Ile Thr Ser Thr Thr Leu Lys Lys Asn His Ile Leu Ser His Ile Thr
1 5 10 15
Met Gly Ser Ile Thr Pro Ser Phe Ser Ser Leu Pro Arg Thr Ser Glu
20 25 30
Ser Tyr Phe Ser Lys Arg Gly Gln Ser Ala Leu Asp Gln Gly Arg Lys
35 40 45
Arg Ile Thr Trp Asp Val Ile Ser Asp Met Trp His Pro Gln Arg Asn
50 55 60
His Ser Gly Ile Leu Ser Ile Gly Met Ala Glu Asn Thr Leu Leu His
65 70 75 80
Asp Thr Leu Leu Glu Tyr Ile His Ala Asn Ile Arg Leu Ser Ala Glu
85 90 95
His Leu Thr Tyr Asn Asn Gly Ser Met Gly Ser Asn Ala Leu Arg Lys
100 105 110
Ala Val Ser His Phe Leu Asn Arg Gln Phe Lys Pro Phe Arg Pro Ile
115 120 125
Glu Pro Ser His Val Leu Val Thr Asn Gly Cys Ser Ser Ala Ile Glu
130 135 140
His Leu Ser Trp Thr Phe Leu Asn Pro Gly Asp Ala Val Leu Leu Ala
145 150 155 160
Met Pro Tyr Tyr Ser Thr Phe Ile Ala Asp Leu Ser Leu Arg Pro Glu
165 170 175
Ala Val Val Val Pro Val His Leu Ala Gly Phe Gln Asp Pro Leu Asp
180 185 190
Pro Lys Thr Ile Asp Lys Tyr Glu Glu Ala Ala Val Glu Phe Glu Ala
195 200 205
Arg Thr Gly Lys Lys Ala Arg Ala Val Met Leu Cys Asn Pro His Asn
210 215 220
Pro Leu Gly Arg Cys Tyr Pro Arg Glu Thr Val Asp Arg Leu Met Arg
225 230 235 240
Leu Cys Gln Ala Arg Gly Met His Leu Ile Ser Asp Glu Val Tyr Ala
245 250 255
Leu Ser Val Trp Asn Asn Arg Leu Asp Asn Pro Asn Lys Val Pro Phe
260 265 270
Thr Pro Phe Lys Ser Ile Leu Ser Arg Asp Thr Thr Asn Leu Ile Asp
275 280 285
Ser Ser Leu Val His Val Leu Trp Gly Leu Ser Lys Asp Phe Gly Ala
290 295 300
Asn Gly Leu Arg Val Gly Ala Val Ile Ser Gln Ser Ser Pro Asp Phe
305 310 315 320
His Ile Ala Gln Lys Cys Leu Ser Leu Tyr Ser Phe Val Ser Ser Leu
325 330 335
Ser Asp Gln Ile Thr Thr Ser Ile Leu Lys Asp Asp Thr Phe Thr Asp
340 345 350
Asn Tyr Ile Lys Met Asn Gln Glu Lys Leu Ser Glu Cys His Glu Phe
355 360 365
Leu Ala Leu Leu Leu Asn Lys His Arg Ile Glu Tyr Met His Gly Cys
370 375 380

```
Asn Ala Gly Phe Phe Leu Trp Val Asn Leu Gly Lys Arg Tyr Leu Glu
385                 390                 395                 400
Ala His Pro Asp Glu Gln Lys Val Arg Gln Arg Glu Gly Gln Asp Glu
                405                 410                 415
Trp Gly Thr Lys Leu Thr Asp Val Ile Phe Gln Lys Leu Leu Asp Asn
            420                 425                 430
Lys Val Tyr Val Ala His Gly Thr Ala Tyr Gly Ser Glu Lys Pro Gly
        435                 440                 445
Trp Phe Arg Leu Val Phe Ser His Pro Leu Pro Trp Leu Glu Glu Ala
    450                 455                 460
Met Ala Arg Ile Ile Arg Ala Ile Thr Gln
465                 470
```

<210> 33229
<211> 65
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (65)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33229

```
Ala Ile Thr Arg Ala Ser Asn Tyr Leu Pro Pro Phe Ile Thr Thr Arg
1               5                   10                  15
Arg Leu Thr Gly Cys Lys Thr Leu Ile Asn Ile Glu Val Ser Ser Lys
            20                  25                  30
Gly Thr Val Gly Leu Leu Leu Trp Val Thr Thr Asn Leu Ser His Phe
        35                  40                  45
Ser Pro Ser Asn Thr Gln Ala Ile Phe Arg Phe Gln Ile Gln Phe Glu
    50                  55                  60
Xaa
65
```

<210> 33230
<211> 159
<212> PRT
<213> A.fumigatus

<400> 33230

```
Gly Cys Arg Glu Tyr His Ile Leu Ser Leu Leu Leu Lys Thr Cys Ala
1               5                   10                  15
Asn Ser Leu Gln Ile Asp Val Ser Val Asn Ala Pro Glu Ser Gly Thr
            20                  25                  30
Ile Lys Glu Leu Leu Val Asn Glu Glu Asp Thr Val Thr Val Gly Gln
        35                  40                  45
Asp Leu Val Lys Leu Glu Leu Gly Gly Ala Pro Gly Pro Lys Glu Glu
    50                  55                  60
Thr Ala Thr Glu Lys Pro Lys Glu Pro Ala Asp Val Gly Lys Arg Pro
65                  70                  75                  80
Pro Val Glu Ser Asn Lys Pro Gln Pro Ser Glu Ala Pro Lys Ala Ser
                85                  90                  95
Ser Pro Pro Pro Glu Gln Pro Pro Thr Ala Lys Pro Gln Pro Pro Ala
            100                 105                 110
Pro Lys Ser Asp Ser Pro Ser Asp Val Lys Pro Ser Phe Glu Gly Arg
```

```
        115                 120                 125
Glu Glu Arg Arg Val Arg Leu Gln Phe Pro Ser Thr Ser Ala Leu Ser
    130                 135                 140
Leu Trp His Ser Leu Thr Arg Gly Cys Ser Val Thr Pro Leu Gly
145                 150                 155

<210> 33231
<211> 136
<212> PRT
<213> A.fumigatus

<400> 33231
Val Lys Met Asn Arg Met Arg Leu Arg Ile Ala Glu Arg Leu Lys Gln
1               5                   10                  15
Ser Gln Asn Thr Ala Ala Ser Leu Thr Thr Phe Asn Glu Val Asp Met
            20                  25                  30
Ser Ser Leu Met Glu Phe Arg Lys Leu Tyr Lys Asp Asp Val Leu Lys
        35                  40                  45
Lys Thr Gly Val Lys Leu Gly Phe Met Ser Ala Phe Ser Arg Ala Cys
    50                  55                  60
Val Leu Ala Met Lys Asp Val Pro Ala Val Asn Ala Ser Ile Glu Gly
65                  70                  75                  80
Pro Asn Gly Gly Asp Thr Ile Val Tyr Arg Asp Tyr Val Asp Ile Ser
                85                  90                  95
Val Ala Val Ala Thr Glu Lys Gly Leu Val Thr Pro Val Val Arg Asn
            100                 105                 110
Ala Glu Thr Met Asp Leu Val Gly Ile Glu Lys Ala Ile Ala Asp Leu
        115                 120                 125
Gly Lys Lys Val Ser Gly Ile Met
    130                 135

<210> 33232
<211> 166
<212> PRT
<213> A.fumigatus

<400> 33232
Phe Ala Ile Ser Asn Ile Gln Ser Leu Tyr Cys Leu His Arg Gly Glu
1               5                   10                  15
Val Ser Thr Ala Trp Thr Phe Ile Ser Arg Ala Ser Leu Met Cys Leu
            20                  25                  30
Gly Leu Gly Leu His Ser Ser His Ala Met Val Met Glu Gln Glu Asn
        35                  40                  45
Ala Gly Gln Arg Lys Met Cys Leu Phe Trp Ala Val Tyr Ala Leu Glu
    50                  55                  60
Lys Ala Val Ala Leu Arg Leu Gly Arg Pro Ser Thr Ile Arg Asp Gln
65                  70                  75                  80
Asp Ile Thr Ile Pro Arg Leu Thr Leu Asp Arg Lys Met Thr Ser Leu
                85                  90                  95
Ala Phe Asn Arg Leu Pro Asp Trp Ile Asn Ile Ala Ser Leu Tyr Gly
            100                 105                 110
Arg Leu Tyr Asp Ser Leu Tyr Ser Pro Thr Ala Leu Thr Gln Pro Gly
        115                 120                 125
Ser Val Arg Val Ser Arg Thr Ser Ala Leu Ala Ser Glu Leu Glu Arg
    130                 135                 140
Met Ile Ala Ala Arg Thr Glu Tyr Tyr Val Ser Ile Lys Gln Leu Ala
```

145 150 155 160
Leu Cys Ser Gln Gln Ser
165

<210> 33233
<211> 275
<212> PRT
<213> A.fumigatus

<400> 33233
Lys Pro Ala Met Lys Tyr Arg Gly Val Val Tyr Asp Val Gly Leu Asn
1 5 10 15
Phe Ser Gly Thr Gly Phe Ser Val Glu Pro Phe Asn Pro Ala Leu Val
20 25 30
Lys Tyr Asp Met Lys Thr Ile Ala Asp Glu Leu Tyr Ala Asn Ala Val
35 40 45
Arg Ile Glu Gly Glu Glu Leu Ser Arg Leu Glu Ile Ala Ala Arg Ser
50 55 60
Ala His Ser Met Gly Leu Lys Val Phe Leu Asn Pro Trp Lys Met Asn
65 70 75 80
Ala Thr Ile Glu Glu Thr Arg Ala Tyr Phe Glu Glu Ala Ala Ile Ile
85 90 95
Ala Glu Arg Leu His Asn Glu Gly Ile Asp Leu Val Phe Ile Ala Gly
100 105 110
Cys Glu Tyr Thr Ile Phe Asn Lys Gly Val Phe Pro Gly Asp Ser Phe
115 120 125
Asn Asp Arg Val Met Phe Leu Gly Arg His Phe Pro Ser Ser His Met
130 135 140
Ile Glu Asp Ile Ser Gln Thr Leu Arg Asp Lys Ser Val Glu Leu Asn
145 150 155 160
Lys Ala Leu Arg Ser Phe Val Glu Val Ile Arg Ser Gln Phe Gly Gly
165 170 175
Lys Val Thr Tyr Ser Ala Gly Ser Trp Glu Val Val Asp Trp Asp Ile
180 185 190
Phe Asp Val Val Gly Ile Asp Tyr Tyr Arg Arg Gly Glu Thr Ala Glu
195 200 205
Lys Tyr Val Ser Cys Leu Asp Arg Tyr Arg Ile Gly Lys Pro Leu Ala
210 215 220
Val Leu Glu Val Gly Cys Cys Ala Tyr Glu Gly Ala Ala Glu Arg Gly
225 230 235 240
Asp Gly Gly Phe Ala Leu Leu Lys Gly Thr Asn Pro Asp Gly Thr Gly
245 250 255
Ile Phe Glu Asn Asp Ile Val Arg Leu His His Gly Ala Gly Arg Gly
260 265 270
Cys Ser Phe
275

<210> 33234
<211> 71
<212> PRT
<213> A.fumigatus

<400> 33234
Ile Ala Ser Gly Pro Ser Leu Asn Ala Arg Leu Arg Phe Leu Gly Arg
1 5 10 15
Ser Ser Ser Trp Thr Asp Phe Gly Ser Ser Gly Phe Gly Glu Asp Asp

```
            20                  25                  30
Ser Ser Ala Phe Ser Arg Glu Tyr Ser Leu Tyr Leu Ala Ala Val Asp
        35                  40                  45
Asn Ala Val Ser Val Ser Leu Leu Leu Lys Leu Lys Gly Ser Leu His
    50                  55                  60
His Gly Pro Gln Glu Pro Ser
65                  70
```

<210> 33235
<211> 505
<212> PRT
<213> A.fumigatus

<400> 33235

```
Arg Leu Pro Phe Asn Leu Ser Arg Arg Glu Thr Asp Thr Ala Leu Ser
1               5                   10                  15
Thr Ala Ala Lys Tyr Lys Glu Tyr Ser Arg Leu Lys Ala Leu Glu Ser
            20                  25                  30
Ser Ser Pro Asn Pro Asp Asp Pro Lys Ser Val Gln Leu Glu Glu Arg
        35                  40                  45
Pro Lys Lys Arg Lys Arg Ala Phe Lys Asp Gly Pro Asp Ala Ile Gln
    50                  55                  60
Asn Ser Ser Thr Pro Arg Lys Thr Ala Lys Gly Ala Leu Glu Thr Pro
65                  70                  75                  80
Ser Lys Asn Arg Leu Ser Ser Ser His Pro Ser Gln Val Asp Pro Tyr
                85                  90                  95
Ile Ser Pro Thr Ala Leu Arg Arg Leu Phe Ser Pro Ser Thr His Arg
            100                 105                 110
Thr Pro Leu Lys Thr Ala Ile Gly Pro Thr Pro Gln Arg Asp Gly Lys
        115                 120                 125
Ala Leu Gly Leu Phe Asp Leu Leu Ser Glu Ser Gly Gly Ser Thr Ala
    130                 135                 140
Thr Pro Ser Ala Asp Arg Val Ala Ser Val Arg Ala Ala Asn Val Arg
145                 150                 155                 160
Thr Pro Ser Lys Arg Lys Thr Met Asp Thr Ile Met Glu Glu Asp Glu
                165                 170                 175
Asp Gly Glu Glu Glu Ser Pro Arg Leu Gly Arg Thr Pro Ala Ser Ser
            180                 185                 190
Gly Lys Lys Trp Met Leu Ser Ala Leu Phe Ala Thr Pro Thr Thr Leu
        195                 200                 205
Arg Tyr Ser Ala Met Val Glu Asp Gly Asn His Ile Thr Glu Arg Asn
    210                 215                 220
Leu Gly Pro Pro Thr Asp Pro Glu Gly Thr Ala Arg Asp Val Ala Gly
225                 230                 235                 240
Pro Glu Thr Pro Ser Phe Leu Arg Arg Ser Asn Ser Ala Arg Tyr Ala
                245                 250                 255
Thr Ser His Ser Ala Asn Pro Ser Leu Ser Pro Ile Ala Val Arg Lys
            260                 265                 270
Pro Pro Gln Phe Val Gly Lys Gly Leu Ser Ala Leu Val Gln Gly Leu
        275                 280                 285
Arg Asp Met Glu Glu Glu Arg Leu Glu Asp Asp Leu Asp Val Leu Arg
    290                 295                 300
Glu Ile Glu Ala Glu Gln Ala Ala Leu Asn Val Glu Val Ala Asp Ser
305                 310                 315                 320
Gln Ala Pro Ala Glu Ile Ile Gly Arg His Trp Lys Lys Lys Gly Gln
                325                 330                 335
```

```
Lys Arg Thr Thr Arg Arg Val Arg Met Lys Pro Val Ile Ser Lys Pro
            340                 345                 350
Ala Ser Lys Pro Gln Ser Ala Ser Asp Asp Glu Asn Arg His Gln Ala
        355                 360                 365
Ala Gly Glu Glu Pro Ala Glu Pro Ala Ala Val Pro Glu Thr Gln Gln
    370                 375                 380
Pro Arg Ala Leu Asp Ala Val Phe Ser Glu Lys Gln Asn Glu Glu Phe
385                 390                 395                 400
Asp Asp Glu Asp Asp Gln Val Ser Leu His Thr Ile Ser Glu Pro Asp
                405                 410                 415
Leu Asp Ser Asp Pro Glu Tyr Gly Glu Asp Ile Lys Pro Val Thr Lys
            420                 425                 430
Ser Lys Ser Phe Ser Glu Lys Met Lys Glu Ala Ile Gly Val Ala Gln
        435                 440                 445
Pro Gln Pro Thr Glu Asp Pro Ala Lys Gln Ser Lys Pro Val Ile Glu
    450                 455                 460
Ala Glu Glu Thr Lys Lys Val Arg Ala Arg Lys Val Asn Pro Glu Ala
465                 470                 475                 480
His Ala Asn Tyr Arg Ser Leu Lys Ile Arg Asn Lys Asn Ser Lys Gly
                485                 490                 495
Arg Gly Ala Gly Arg Phe Arg Arg Arg
            500                 505
```

<210> 33236
<211> 136
<212> PRT
<213> A.fumigatus

<400> 33236

```
Phe Arg Gly Lys Ile Pro Val Trp Pro Leu Lys Glu Pro Phe His Gln
1               5                   10                  15
Ser Leu Tyr Thr Asp Ser Ser Thr Ala Ile Met Ser Pro Phe Leu Asn
            20                  25                  30
Cys Asn Ser Pro Gly Ser Glu Gly Trp Lys Ser Asn Lys Ala Leu Thr
        35                  40                  45
Arg Glu Thr Val Ala Ala Glu Val Pro Gly Gly Thr Ala Cys Asp Val
    50                  55                  60
Ala Val Trp Val Trp Leu Ala Gly Ser Glu Thr Glu Val Leu Gly Ser
65                  70                  75                  80
Ala Leu Gly Ser Gly Ala Ala Leu Gly Phe Ser Leu Met Glu Arg Ala
                85                  90                  95
Ser Ala Ile Cys Ser Ser Ser Ser Ser Phe Cys Arg Ser Ala Ser Val
            100                 105                 110
Ile Ser Arg Phe Pro Gly Leu Asp Gly Gly Cys Arg Leu Gly Ser Glu
        115                 120                 125
Lys Lys Arg Ser Val Leu Ala Ser
    130                 135
```

<210> 33237
<211> 235
<212> PRT
<213> A.fumigatus

<400> 33237

```
Gly Ser Arg Asp Thr Asn Ala Gly Tyr Asp Ala Arg Thr Asp Leu Phe
1               5                   10                  15
```

```
Phe Ser Asp Pro Asn Leu Gln Pro Pro Ser Lys Pro Gly Lys Arg Glu
            20                  25                  30
Ile Thr Glu Ala Asp Arg Gln Lys Glu Glu Glu Glu Leu Gln Met Ala
        35                  40                  45
Leu Ala Leu Ser Ile Arg Glu Lys Pro Ser Ala Ala Pro Glu Pro Lys
    50                  55                  60
Ala Glu Pro Ser Thr Ser Val Ser Glu Pro Ala Ser Gln Thr Gln Thr
65                  70                  75                  80
Ala Thr Ser Gln Ala Val Pro Pro Gly Thr Ser Ala Ala Thr Val Ser
                85                  90                  95
Arg Val Arg Ala Leu Phe Asp Phe Gln Pro Ser Glu Pro Gly Glu Leu
            100                 105                 110
Gln Phe Arg Lys Gly Asp Ile Ile Ala Val Leu Glu Ser Val Tyr Lys
        115                 120                 125
Asp Trp Trp Lys Gly Ser Leu Arg Gly Gln Thr Gly Ile Phe Pro Leu
    130                 135                 140
Asn Tyr Val Glu Lys Leu Pro Asp Pro Thr Val Glu Glu Leu Gln Arg
145                 150                 155                 160
Glu Ala Gln Met Glu Ala Glu Val Phe Gly Gln Ile Lys Asn Val Glu
                165                 170                 175
Lys Leu Leu Thr Leu Leu Ser Thr Arg Ser Ser Glu Leu Asn Val Gln
            180                 185                 190
Asp Asn Glu Glu Ile Thr Ser Leu Tyr His Ser Thr Leu Ser Ile Arg
        195                 200                 205
Pro Lys Leu Ile Glu Leu Ile Gly Lys Tyr Ser Gln Lys Lys Gly Met
    210                 215                 220
Ser Lys Lys Thr Pro Arg Cys Asn Ser Phe Gly
225                 230                 235

<210> 33238
<211> 262
<212> PRT
<213> A.fumigatus

<400> 33238
Tyr Arg Leu Asp Glu Phe Thr Gln Leu Asn Glu Lys Phe Ile Lys Ala
1               5                   10                  15
Arg Arg Asp Tyr Glu Ser Leu Leu Glu Ala Ser Met Ala His Pro Ala
            20                  25                  30
Gln Pro Gln Tyr Gly Arg Pro Gly Gln Ala Pro Tyr Gly Tyr Pro Gly
        35                  40                  45
Pro Ala Ala Pro Leu Gly Tyr Pro Gln Gly Pro Pro Gln Ser Asp Pro
    50                  55                  60
Gln Arg Tyr Phe Ser Pro Arg Pro Gln Asp Gln Thr His Met Tyr Pro
65                  70                  75                  80
Pro Thr Ser His Ser Pro Asp Pro Arg Gly Arg Thr Pro Pro Ala Gly
                85                  90                  95
Pro Ser Phe Pro Gln His Gln Gln Pro Pro Pro Asp Ser Tyr Gln Pro
            100                 105                 110
Val His His Arg Pro Glu Ser Thr Tyr Asp Asn Pro Gln Glu Leu Gly
        115                 120                 125
Thr Ser Val Tyr Asp Ser Pro Val Glu His Pro Ser Ser Ser Gln Arg
    130                 135                 140
Leu Pro Tyr Pro Pro Ser Gly Ala Gln Val Pro Pro Gly Val His Gln
145                 150                 155                 160
Gln Phe Gln His Gln Gln Gln Glu Tyr Pro Pro Ser Gly Tyr Pro Pro
```

```
                165                 170                 175
Glu Asp Ala Ser Lys Pro Pro Ala Ala Gly Phe Ala Leu Gln Pro Pro
            180                 185                 190
Gln Gln Thr Leu Gln Gln Pro Pro Tyr Pro Thr Ala Pro Gly Ala His
        195                 200                 205
Gln Pro Thr Pro Ser His Gln Pro Pro Pro Val Pro Ser Thr Ala Ser
    210                 215                 220
Lys Pro Thr Pro Tyr Pro Ser Leu Thr Pro Gly Thr Pro Ser Gly Gly
225                 230                 235                 240
Glu Tyr Gln Ala Tyr Asn Pro Ser Gln Ala Gly Ala Ala Asn Ser Asn
                245                 250                 255
Pro Asn Ser Tyr Tyr Arg
            260
```

<210> 33239
<211> 104
<212> PRT
<213> A.fumigatus

<400> 33239

```
Val Leu Leu Tyr Met Ile His Pro Ser Asn Ile Arg Leu Gln Val Ser
1               5                   10                  15
Gly Tyr Pro Ile Leu Pro Leu Ala His Lys Phe His Leu Val Ser Thr
            20                  25                  30
Ser Ser Ser Ser Ile Ser Asn Lys Ser Thr Arg Leu Gln Ala Ile Pro
        35                  40                  45
Pro Arg Thr Pro Pro Ser Leu Leu Leu Pro Ala Ser Pro Tyr Asn Arg
    50                  55                  60
Arg Asn Arg His Tyr Asn Asn Leu Leu Thr Leu Arg His Arg Ala Leu
65                  70                  75                  80
Ile Asn Arg Leu His Arg Thr Ser His His Gln Ser Pro Val Arg Arg
                85                  90                  95
Arg Ser Gln Pro Pro Ile Leu His
            100
```

<210> 33240
<211> 179
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (178)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33240

```
Ile Leu Pro Arg Pro Arg Asp Asp Asp Leu Ile Ile Arg Thr Gln Asn
1               5                   10                  15
Gly Thr Trp Gln Asp Ile Val Leu Gln Val Gly His Ser Pro Leu Trp
            20                  25                  30
Pro Val Asp Phe Pro His Ala Val His Lys His Gly Asn Glu Phe Trp
        35                  40                  45
Arg Leu Gly Ser Gly Gln Gly Leu Trp Lys Tyr Ser Ser Val Ser Glu
    50                  55                  60
Ala Phe Ala Asp His Pro Glu Asn Phe Asn Met Val Asn Pro Pro Tyr
65                  70                  75                  80
```

```
Arg Asp Thr Phe Leu Thr Glu Phe Thr Gly Thr Met Trp Val Val Leu
                85                  90                  95
Arg Tyr Gln Val Thr Ser Pro Gly Ala Trp Leu Leu His Cys His Phe
            100                 105                 110
Glu Met His Leu Asp Asn Gly Met Ala Met Ala Ile Leu Asp Gly Val
        115                 120                 125
Asp Lys Trp Pro Lys Val Pro Asp Glu Tyr Ala Leu Gly Ser His Gly
    130                 135                 140
Phe Arg Val Asp Gly Lys Asn Gly Leu Gln His Tyr Phe Phe Gln Gln
145                 150                 155                 160
Gly His Gly Pro Ala Asn Gln Pro Asn Val Cys Ile Ala Val Gly Glu
                165                 170                 175
Leu Xaa Ser
```

<210> 33241
<211> 111
<212> PRT
<213> A.fumigatus

<400> 33241

```
Gln Arg Arg Asp Ala Glu Tyr Lys Leu Lys Ile Thr Ile Ala Thr Gln
1               5                   10                  15
Ala Gly Thr Leu Arg Ser Val Glu Ile Leu Val Phe Asp Leu Asp Ser
            20                  25                  30
Ala Pro Arg Ser Arg Ser Ile Trp Ile Thr Leu Leu Leu Pro Cys Ser
        35                  40                  45
Lys Tyr Thr Leu Leu Arg Pro Pro Trp His Ala Cys Ser Gln Arg Gly
    50                  55                  60
Ala Glu Ser Gly Ser Lys Gly Tyr Val Pro Phe Leu Asp Ile His Ile
65                  70                  75                  80
Phe Ser Leu Lys Phe Tyr Leu Asp Cys Gly Pro Val Ala Ile Met Thr
                85                  90                  95
Ala Lys Trp Asn Glu Arg Ile Phe Tyr His Met Lys Ile Asn Ile
            100                 105                 110
```

<210> 33242
<211> 133
<212> PRT
<213> A.fumigatus

<400> 33242

```
Gly Asn Gly Glu Leu Arg Ala Met Thr Ala Thr Leu Ala Ala Ile Arg
1               5                   10                  15
Gly Ser Asp Ala Tyr Glu Val Ala Asp Pro Glu Pro Ser Gly Arg Arg
            20                  25                  30
Asn Arg Ile Phe Ser Glu Phe Arg Glu Glu Leu Ala Gly Thr Ile Asp
        35                  40                  45
Glu Ala Ser Gly Met Pro Ala Tyr Ala Arg Asp Arg Trp Val Ser Ile
    50                  55                  60
Asn Trp Ile Gly Gly Trp Thr Phe Lys Ser Leu Gln Pro Thr Ile Asp
65                  70                  75                  80
Glu His Glu Met Trp Ile Tyr Glu Val Asp Gly His Tyr Ile Glu Pro
                85                  90                  95
Arg Arg Ala Glu Thr Phe Leu Ile Trp Ala Gly Glu Arg Tyr Ser Ala
            100                 105                 110
```

```
Leu Val Gln Leu Asp Lys Lys Pro Met Asp Tyr Ser Ile Arg Val Pro
        115                 120                 125
Asp Gly Gly Tyr Leu
    130
```

<210> 33243
<211> 112
<212> PRT
<213> A.fumigatus

<400> 33243

```
Met Ile Ser Ala Phe Gly Ile Leu Gln Tyr Lys Asn Ser Asn Leu Asp
1               5                   10                  15
Ala His Arg Pro Pro Asp Trp Phe Ser Val Thr Thr Ile Ser Gln Pro
            20                  25                  30
Phe Phe Asp Tyr Asn Ala Trp Pro Thr Trp Asp Gly Ile Val Phe Leu
        35                  40                  45
Asp Lys Leu Asp Leu Pro Pro Trp Pro Pro Lys Ala Pro Phe Thr Gly
    50                  55                  60
Asp Gly Asp Thr Met His Val Leu Tyr Leu Gly Lys Ala Asn Ser Thr
65                  70                  75                  80
Trp Glu Phe Thr Leu Ser Gly Lys Lys Lys Tyr Pro Ser Asp Arg Ser
                85                  90                  95
Ala Tyr His Pro Leu Leu Tyr Asn Val Asn Ser Pro Glu Ala Ser Arg
            100                 105                 110
```

<210> 33244
<211> 120
<212> PRT
<213> A.fumigatus

<400> 33244

```
Pro Ile Asp Arg Gly His Lys Leu Ala Phe Gln Thr Pro His Leu Leu
1               5                   10                  15
Ser Leu Gln Ala Pro Leu Gly Ile Arg Arg Arg Ser Cys Ser Ser Cys
            20                  25                  30
Pro Thr Ala Gln Gly Gln Pro Pro His Met His His Cys Arg Val Leu
        35                  40                  45
Arg Pro Lys Ser Pro Ser Leu Leu Ser Thr Arg Arg Ser Leu Lys Asn
    50                  55                  60
Asp Val Asp Val His Cys Thr Val Asp Glu Leu Val Gly Ser Tyr Leu
65                  70                  75                  80
Lys Glu Ile Arg Thr Arg Gln Pro Thr Gly Pro Tyr His Leu Ala Gly
                85                  90                  95
Trp Ser Ala Gly Gly Ile Leu Ala Tyr Arg Ala Ala Gln Ile Leu Leu
            100                 105                 110
Ala Arg Gly Glu Gln Val Pro Cys
        115                 120
```

<210> 33245
<211> 138
<212> PRT
<213> A.fumigatus

<400> 33245

```
Val Leu Leu Asp Ala Pro Pro Pro Met Gly Leu Gly Thr Leu Pro Gln
```

```
1               5                   10                  15
His Phe Phe Asp His Cys Asp Ala Met Gly Ile Phe Gly Gln Glu Gly
            20                  25                  30
Lys Ala Pro Glu Trp Leu Ile Pro His Phe Lys Lys Thr Asn Ala Ile
        35                  40                  45
Leu Ser Gly Tyr Tyr Ala Thr Pro Phe Val Ala Gly Gln Gly Pro Asp
    50                  55                  60
Arg Thr Gly Ile Ile Trp Ala Ser Gln Ser Val Phe Asp Ser Lys Gly
65                  70                  75                  80
Cys Ala Arg Pro Ala Pro Arg Pro Glu Asp Met Glu Asp Met Lys Phe
                85                  90                  95
Leu Thr Glu Ala Arg Thr Asp Phe Ser Ala Gly Ile Trp Gly Ser Leu
            100                 105                 110
Phe Pro Gly Ala Glu Val Val Val Asp Lys Ala Asp Gly Ala Asn His
        115                 120                 125
Phe Ser Met Met Val Arg Ala Ser Val Leu
    130                 135
```

<210> 33246
<211> 181
<212> PRT
<213> A.fumigatus

<400> 33246

```
Phe Ser Pro Thr Arg Pro Ser Cys Gly Arg Leu Cys Ser Ser Pro Ile
1               5                   10                  15
Ser Thr Ala Trp Asp Val Val Val Ser Phe Val Val Ala Gln Ile Phe
            20                  25                  30
Thr Ala Pro Pro Tyr Ser Leu Asp Ala Val Asp Ile Gly Tyr Met Ser
        35                  40                  45
Ala Gly Pro Val Ile Gly Gly Thr Leu Gly Ser Ile Val Cys Gly Leu
    50                  55                  60
Val Ser Asp Pro Val Ala Arg Ala Leu Ala Arg Arg Asn Arg Gly Val
65                  70                  75                  80
Tyr Glu Pro Glu Phe Arg Leu Val Leu Ile Ile Pro Met Leu Ile Ala
                85                  90                  95
Ser Ala Leu Gly Trp Phe Leu Phe Gly Asn Leu Val Val Ala Gly Thr
            100                 105                 110
Ser Pro Ser Val Val Ala Val Val Trp Ala Ile Thr Thr Ile Ser Arg
        115                 120                 125
Gln Phe Gly Met Thr Thr Ile Gly Ala Tyr Ile Leu Asp Gly Val Ser
    130                 135                 140
Lys His Leu Val Arg Gly Val Tyr His Arg Asp Gly Asp Glu Glu Leu
145                 150                 155                 160
Cys Val Leu Trp Ala Phe Val Cys Val Pro Phe Phe Leu Val His Trp
                165                 170                 175
Ile Leu Gly Cys Cys
            180
```

<210> 33247
<211> 107
<212> PRT
<213> A.fumigatus

<400> 33247

```
Glu Ile Trp Gly Glu Pro Leu Ser Glu Gln Gly Leu Val Pro Thr Asn
```

```
1               5                   10                  15
Ala Thr Gln Ser Val Pro Arg Lys Met Ala Phe Gly Ile Leu Ser Pro
            20                  25                  30
Ser His Gly Pro Gln His Val Gly Gly Thr Ser Leu Leu Asp Thr Ser
        35                  40                  45
Gly Val Asp Glu Ala Pro Ser Val Ala Glu Leu Glu Arg Gly Thr Gly
    50                  55                  60
Lys His Ala Lys Thr Val Leu Ile Pro Gln Pro Ser Lys Asp Pro Asn
65                  70                  75                  80
Asp Pro Leu Arg Trp Pro Leu Trp Gln Arg Asp Leu Met Phe Leu Met
                85                  90                  95
His Ile Tyr Cys Thr Ile Leu Cys Val Gly Gly
            100                 105
```

<210> 33248
<211> 96
<212> PRT
<213> A.fumigatus

```
<400> 33248
Ile Ile Tyr Thr Arg Ser Ala Tyr Asn Met Leu Glu Ala Phe Glu Val
1               5                   10                  15
Leu Thr Thr Ser Gly Val Val Leu Trp Ser Lys Ser Tyr Ala Pro Val
            20                  25                  30
Gly Ala His Val Val Asn Ser Leu Ile Asn Asp Val Phe Ile Glu Glu
        35                  40                  45
Lys Val Arg Ala Gln Asn Gln Ala Ala Ser Ser Ala Ala Pro Ile Tyr
    50                  55                  60
Lys Lys Glu Lys Tyr Thr Leu Lys Trp Lys Gln Val Lys Asp Phe Asn
65                  70                  75                  80
Leu Ile Phe Val Val Cys Ser Arg Arg Ser Leu Ile Gln Trp Arg His
                85                  90                  95
```

<210> 33249
<211> 220
<212> PRT
<213> A.fumigatus

```
<400> 33249
Phe Asn Arg Tyr Val Ser Ile Pro Ala Leu Lys His Tyr Phe Asn Val
1               5                   10                  15
Ser Asn Ser Tyr Val Leu Asn Lys Leu Ala Leu Val Leu Phe Pro Trp
            20                  25                  30
Arg His Lys Pro Trp Ser Arg Gln Gln Ala Arg Leu Thr Thr Ser Ser
        35                  40                  45
Ala Gly Pro Asn Gly Gln Ile Ala Gln Gln Gln Tyr Ser Ser Met Phe
    50                  55                  60
Leu Pro Pro Arg Asp Asp Leu Asn Ser Pro Asp Met Tyr Ile Pro Val
65                  70                  75                  80
Met Ala Leu Val Thr Tyr Ile Leu Leu Ser Ala Val Leu Ala Gly Phe
                85                  90                  95
Arg Gly Gln Phe His Pro Glu Leu Leu Gly Ser Ile Thr Thr Thr Ala
            100                 105                 110
Ile Ala Val Ile Val Phe Glu Ile Leu Cys Leu Lys Leu Ala Met Tyr
        115                 120                 125
Ile Leu Ser Ile Asn Asn Glu Ser Gln Leu Leu Asp Leu Val Ala Tyr
```

```
    130                 135                 140
Ser Gly Tyr Lys Phe Val Gly Ile Ile Ala Thr Leu Val Met Ser Glu
145                 150                 155                 160
Ile Leu Thr Pro Gly Arg Gly Thr Gly Gly Trp Val Gly Trp Val Val
                165                 170                 175
Phe Met Tyr Thr Phe Leu Ala Asn Ala Phe Phe Leu Val Ser Asp Lys
            180                 185                 190
Phe Phe Val Thr Ser Ala Phe Gln Ser Val Asp Lys Leu Pro Ala Pro
        195                 200                 205
Leu Val Glu Val Arg Ser Thr Pro Arg Leu Asn Gln
    210                 215                 220

<210> 33250
<211> 168
<212> PRT
<213> A.fumigatus

<400> 33250
Lys Thr Arg Arg Arg Asp Arg Ile Val Ala Ser Leu Leu Phe Ile Thr
1               5                   10                  15
Ser Phe Ser Leu Ile Val Thr Arg Glu Lys Lys Ile Asn Met Tyr Arg
            20                  25                  30
Gln Ser Phe Ala Pro Pro Pro Ala Gln Ser Pro Pro Leu His His Pro
        35                  40                  45
Val Pro Gln His Val Ser Thr Val Pro Met Met Arg Ser Pro Pro Pro
    50                  55                  60
Pro Ala Ser Gln Gln Pro Pro Ser Ser Gly Tyr Gly Asn Pro Tyr Gln
65                  70                  75                  80
Pro Ser Pro Ala Gln Gly Gly Ser Gly Thr Tyr Ala Pro Gly Phe Ser
                85                  90                  95
Gly Phe Ile Asn Asp Pro Thr Ala Gln Met Gly Phe Gln Val Gly Lys
            100                 105                 110
Thr Ala Met Ala Ala Gly Gln Glu Tyr Met Glu Gln Asn Val Ser Trp
        115                 120                 125
Leu Thr Lys Lys Pro Thr Ala Pro Gln Thr Tyr Glu Leu Leu Leu Ile
    130                 135                 140
Phe His Ser Ser Ile Ala Met Ser Pro Ser Gln Leu Ser Ser Ile Thr
145                 150                 155                 160
Ser Thr Tyr Gln Ile Leu Thr Ser
                165

<210> 33251
<211> 113
<212> PRT
<213> A.fumigatus

<400> 33251
Gly Thr Phe Ile Lys Cys Ser Ile Leu Cys Gln Tyr Leu Arg Ile Phe
1               5                   10                  15
Pro Ser Arg Arg Phe Arg Phe Ala Cys His Thr Val Met Gly Ile Val
            20                  25                  30
Ala Leu Tyr Ser Thr Trp Ala Ile Val Ser Ala Phe Val Asn Cys Ile
        35                  40                  45
Pro Val Ala Arg Phe Trp Asp Arg Asp Ile Pro Gly Ser Cys Leu Ser
    50                  55                  60
Phe Glu Ala Val Trp Phe Phe Asn Ala Ser Met Asn Ile Ala Thr Asp
```

65 70 75 80
Leu Thr Leu Leu Ile Met Pro Met Pro Leu Ile Ser Gln Leu Gln Leu
85 90 95
Pro Arg Met Gln Lys Ile Ala Leu Met Ala Val Phe Ala Val Gly Leu
100 105 110
Leu

<210> 33252
<211> 71
<212> PRT
<213> A.fumigatus

<400> 33252
Leu Arg Ser Trp Tyr Val Cys Gln Leu Tyr Leu Ala Ser Phe Phe Ile
1 5 10 15
Ile Glu Leu Ala Arg Met Ile Leu Ala Arg Ile Lys Leu Gln Gln Lys
20 25 30
Asn Asp Gln Pro Ser Glu Ala Gln Ser Ser His Asn Ala Leu Asn His
35 40 45
Ala Ile Thr Asn Ser Asp Ser Lys Val Thr Thr Ser Val Cys Ser Ser
50 55 60
Asn Gly Asn Ser Gln Ser Ile
65 70

<210> 33253
<211> 329
<212> PRT
<213> A.fumigatus

<400> 33253
Arg Ser Glu Trp Leu Arg Ile Gly Pro Pro Gly Arg Cys His Asp Asp
1 5 10 15
Pro Thr Thr Phe Tyr Lys His Asn Gly His Gln His Thr His Met His
20 25 30
Ser Gly Ser Asn Ser Leu Ser Thr Val Pro Ala Gln Gly Glu Ser Ile
35 40 45
Asp Met Pro Ser Ala Leu Arg Thr Phe Thr Leu Asn Phe Val Gly Asp
50 55 60
Val Met Leu Gly Arg Leu Val Asp Gln Leu Trp Pro Gln His Val Asp
65 70 75 80
Asn Ala His Glu Arg Arg Val Val Ser Tyr Phe Ile Glu Arg Tyr Pro
85 90 95
Tyr Leu Ser Lys Tyr Thr His Arg Asp Pro Trp Gly Ser Ala Leu Pro
100 105 110
Leu Phe His Asn Ser Asp Leu Asn Leu Ile Asn Leu Glu Thr Ser Ala
115 120 125
Thr Thr Thr Asn Asp Pro Trp Pro Ser Lys Ala Phe Asn Tyr Arg Met
130 135 140
His Pro Ala Asn Ala Ala Ala Leu Arg Glu Ala Arg Ile Asp Tyr Ala
145 150 155 160
Thr Leu Ala Asn Asn His Thr Leu Asp Phe Gly Thr Asp Gly Leu Val
165 170 175
Glu Thr Val Trp Thr Met Lys Glu Ser Lys Ile Ala Phe Ala Gly Ala
180 185 190
Gly Glu Thr Thr Asp Glu Ser Arg Arg Pro Ala Val Leu Arg Leu Pro

```
        195                 200                 205
Arg Cys Ala Glu Ala His Ala Gln Asp Ser His Glu Gln Ser Ser Lys
    210                 215                 220
Ser Tyr Ser Val His Val Tyr Ala Ala Ser Asp His Pro Arg Asp Trp
225                 230                 235                 240
Ala Val Val Pro Thr Phe His Leu Ile Asp Tyr Ser Ala Arg Thr Arg
                245                 250                 255
Glu His Leu Arg Thr Leu Leu Thr Ser Pro Pro Ala Ser Thr Asp Thr
            260                 265                 270
Pro Glu Lys Pro Ala Leu Lys Ile Phe Ser Val His Trp Gly Pro Asn
        275                 280                 285
Tyr Thr Trp Gln Pro Ala Glu Lys Ile Arg Ser Leu Ala His Phe Leu
    290                 295                 300
Ile Asp Glu Cys Gly Val Asp Ile Val His Gly His Ser Ser His His
305                 310                 315                 320
Val His Gly Val Asp Arg His Arg Gln
                325
```

<210> 33254
<211> 121
<212> PRT
<213> A.fumigatus

```
<400> 33254
Ser Thr Leu Val Cys Ser Tyr Ile Leu Thr Leu Cys Arg Leu Pro Val
1               5                   10                  15
Pro Ser Leu Trp Leu Asp Val Phe Gln Lys Ile Lys Ala Leu Gly Phe
            20                  25                  30
Asn Cys Val Ser Phe Tyr Val Asp Trp Ala Leu Leu Glu Gly Lys Pro
        35                  40                  45
Gly Glu Tyr Arg Ala Glu Gly Asn Phe Ala Leu Glu Pro Phe Phe Asp
    50                  55                  60
Val Ala Lys Gln Ala Gly Ile Tyr Leu Leu Ala Arg Pro Gly Pro Tyr
65                  70                  75                  80
Ile Asn Ala Glu Ala Ser Gly Gly Gly Phe Pro Gly Trp Leu Gln Arg
                85                  90                  95
Val Asn Gly Thr Leu Arg Thr Ser Asp Pro Ala Tyr Leu Lys Ala Thr
            100                 105                 110
Asp Lys Tyr Val Ala Tyr Asp Cys Leu
        115                 120
```

<210> 33255
<211> 91
<212> PRT
<213> A.fumigatus

```
<400> 33255
Ile Ser Tyr Ile Ala His Val Ala Ala Thr Ile Ala Lys Gly Gln Ile
1               5                   10                  15
Thr Asn Gly Gly Pro Val Ile Leu Tyr Gln Pro Glu Asn Glu Tyr Ser
            20                  25                  30
Gly Ala Cys Cys Asp Ala Thr Phe Pro Asp Gly Asp Tyr Met Gln Tyr
        35                  40                  45
Val Ile Asp Gln Ala Arg Asn Ala Gly Ile Val Val Pro Leu Ile Asn
    50                  55                  60
Asn Asp Ala Trp Thr Gly Gly His Asn Ala Pro Gly Thr Gly Lys Gly
```

65 70 75 80
Glu Val Asp Ile Tyr Gly His Asp Ser Tyr Pro
85 90

<210> 33256
<211> 101
<212> PRT
<213> A.fumigatus

<400> 33256
Gly His Pro Ser Val Trp Pro Lys Gly Asn Leu Pro Thr Thr Phe Arg
1 5 10 15
Thr Asp His Leu Lys Gln Ser Pro Thr Thr Pro Tyr Ser Leu Ile Glu
20 25 30
Val Cys Val Cys Leu Lys Cys Pro Arg Ile Arg Thr Pro Leu Ile Val
35 40 45
Val Gln Phe Gln Ala Gly Ser Phe Asp Pro Trp Gly Gly Pro Gly Phe
50 55 60
Ala Ala Cys Ala Ala Leu Val Asn His Glu Phe Glu Arg Val Phe Tyr
65 70 75 80
Lys Asn Asp Leu Ser Phe Gly Ala Ala Ile Leu Asn Leu Tyr Met Val
85 90 95
Trp Lys Asp Pro Ala
100

<210> 33257
<211> 412
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (340),(406)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33257
Phe Arg Ala Asp Arg Asn Ser Val Tyr Asn Tyr Trp Val Pro Gln Leu
1 5 10 15
Asp Lys Asp Asp Ser Ser Thr Gly Tyr Ser Ser Glu Lys Thr Thr Ala
20 25 30
Ser Ser Ile Ile Val Lys Ala Gly Tyr Leu Val Arg Thr Ala Tyr Thr
35 40 45
Lys Gly Ser Gly Leu Tyr Leu Thr Ala Asp Phe Asn Ala Thr Thr Pro
50 55 60
Val Glu Val Ile Gly Ala Pro Ser Asn Val Arg Asn Leu Tyr Ile Asn
65 70 75 80
Gly Glu Lys Thr Gln Phe Lys Thr Asp Lys Asn Gly Ile Trp Ser Thr
85 90 95
Glu Val Lys Tyr Ser Ala Pro Lys Ile Lys Leu Pro Ser Met Lys Asp
100 105 110
Leu Asp Trp Lys Tyr Leu Asp Thr Leu Gln Glu Val Gln Ser Thr Tyr
115 120 125
Asp Asp Ser Ala Trp Pro Ala Ala Asp Leu Asp Thr Thr Pro Asn Thr
130 135 140
Leu Arg Pro Leu Thr Thr Pro Lys Ser Leu Tyr Ser Ser Asp Tyr Gly
145 150 155 160

```
Phe His Thr Gly Tyr Leu Ile Tyr Arg Gly His Phe Val Ala Asp Gly
                165                 170                 175
Ser Glu Thr Thr Phe Asp Val Arg Thr Gln Gly Gly Ser Ala Phe Gly
            180                 185                 190
Ser Ser Val Trp Leu Asn Glu Ser Phe Leu Gly Ser Trp Thr Gly Leu
        195                 200                 205
Asn Ala Asn Ala Asp Tyr Asn Ser Thr Tyr Lys Leu Pro Gln Val Glu
    210                 215                 220
Gln Gly Lys Asn Tyr Val Leu Thr Ile Leu Ile Asp Thr Met Gly Leu
225                 230                 235                 240
Asn Glu Asn Trp Val Val Gly Thr Asp Glu Met Lys Asn Pro Arg Gly
                245                 250                 255
Ile Leu Ser Tyr Lys Leu Ser Gly Arg Asp Ala Ser Ala Ile Thr Trp
            260                 265                 270
Lys Leu Thr Gly Asn Leu Gly Gly Glu Asp Tyr Gln Asp Lys Ile Arg
        275                 280                 285
Gly Pro Leu Asn Glu Gly Gly Leu Tyr Ala Glu Arg Gln Gly Phe His
    290                 295                 300
Gln Pro Gln Pro Pro Ser Gln Lys Trp Lys Ser Ala Ser Pro Leu Asp
305                 310                 315                 320
Gly Leu Ser Lys Pro Gly Ile Gly Phe Tyr Thr Ala Gln Phe Asp Leu
                325                 330                 335
Asp Ile Pro Xaa Gly Trp Asp Val Pro Leu Tyr Phe Asn Phe Gly Asn
            340                 345                 350
Ser Thr Lys Ser Ala Tyr Arg Val Gln Leu Tyr Val Asn Gly Tyr Gln
        355                 360                 365
Tyr Gly Lys Phe Val Ser Asn Ile Gly Pro Gln Thr Ser Phe Pro Val
    370                 375                 380
Pro Gln Gly Ile Leu Asn Tyr Gln Gly Asn Asn Trp Val Ala Leu Thr
385                 390                 395                 400
Leu Trp Ala Leu Glu Xaa Asp Gly Ala Lys Phe Gly
                405                 410
```

<210> 33258
<211> 60
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (2),(3),(5)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33258

```
Gly Xaa Xaa Phe Xaa Met His His Arg Arg Ile Leu Leu Ser Pro Val
1               5                   10                  15
Val Lys Thr Asp Glu Lys Ser Leu Phe Val Asn Gly Glu Arg Ile Met
            20                  25                  30
Ile Phe Ser Gly Glu Val His Pro Phe Arg Cys Asp Thr Asp Ala Val
        35                  40                  45
Ile Tyr Ser Gly Leu Phe Leu His Ser Tyr Ile Val
    50                  55                  60
```

<210> 33259
<211> 224
<212> PRT

<213> A.fumigatus

<400> 33259

```
Thr Phe Gly Gly Thr Asn Trp Gly Asn Leu Gly His Pro Gly Gly Tyr
1               5                  10                  15
Thr Ser Tyr Asp Tyr Gly Ser Pro Leu Thr Glu Ser Arg Asn Val Thr
            20                  25                  30
Arg Glu Lys Tyr Ser Glu Leu Lys Leu Ile Gly Asn Phe Val Lys Ala
        35                  40                  45
Ser Gln Ser Tyr Ile Leu Val Thr Pro Gly Asn Leu Thr Thr Ser Gly
    50                  55                  60
Tyr Ala Asp Thr Ala Asp Leu Thr Val Thr Pro Leu Leu Gly Asn Gly
65                  70                  75                  80
Thr Gly Ser Tyr Phe Val Val Arg His Thr Asp Tyr Thr Ser Gln Ala
                85                  90                  95
Cys Thr Pro Tyr Lys Leu Ser Leu Pro Thr Ser Ala Gly Arg Leu Thr
            100                 105                 110
Val Pro Gln Leu Gly Gly Thr Leu Thr Leu Asn Gly Arg Asp Ser Lys
        115                 120                 125
Ile His Val Val Asp Tyr Asn Val Ala Gly Thr Asn Ile Ile Tyr Ser
    130                 135                 140
Thr Ala Glu Val Phe Thr Trp Lys Asn Phe Gly Asp Ser Lys Val Leu
145                 150                 155                 160
Ile Leu Tyr Gly Gly Pro Gly Glu His His Glu Leu Ala Val Ser Leu
                165                 170                 175
Lys Ser Asp Val Gln Val Val Glu Gly Ser Asn Ser Glu Phe Lys Ser
            180                 185                 190
Lys Lys Val Gly Asp Val Val Val Val Ala Trp Asp Val Ser Pro Ser
        195                 200                 205
Arg Arg Ile Val Gln Ile Gly Asp Leu Lys Ile Phe Leu Leu Gly Glu
    210                 215                 220
```

<210> 33260
<211> 502
<212> PRT
<213> A.fumigatus

<400> 33260

```
Thr Ser Thr Pro Tyr Ser Arg Tyr Cys Thr Pro Arg Gln Arg Thr Glu
1               5                  10                  15
Ile Leu Ile Leu Ala Lys Val Met Ser Ser Glu Lys Leu Leu Phe Pro
            20                  25                  30
Arg Pro His Phe Phe Glu Gly Ser Lys Leu Asn Phe Ala Glu Asn Leu
        35                  40                  45
Leu Tyr Pro Ala Ser Ser Pro Ala Glu Asp Thr Thr Ala Val Ile Ser
    50                  55                  60
Ala Thr Glu Ser Asp Arg Glu Phe Val Ser Trp Lys Glu Leu Arg Glu
65                  70                  75                  80
Arg Val Arg Lys Cys Ala Asn Ser Leu Arg Glu Ala Gly Leu Gln Ala
                85                  90                  95
Gly Asp Arg Val Ala Gly Phe Leu Gly Asn His Ala Asn Thr Val Ile
            100                 105                 110
Ala Met Leu Ala Thr Thr Ser Ile Gly Ala Tyr Trp Thr Gly Val Ser
        115                 120                 125
Pro Asp Thr Gly Val His Ala Val Leu Glu Arg Leu Arg Gln Ile Glu
    130                 135                 140
```

```
Pro Lys Ile Leu Phe Ala Asp Asn Ala Ser Leu Tyr Asn Gly Lys Val
145                 150                 155                 160
His Ser Ala His Glu Lys Ile Arg Gln Ile Val Ser Glu Leu Pro Glu
                165                 170                 175
Leu Gln Leu Leu Val Val Phe Glu Thr Ile Lys Ser His Gln Phe Asn
            180                 185                 190
Val Asp Glu Val Lys Pro Thr Gln Gly Lys Ala Cys Thr Tyr Asp Thr
        195                 200                 205
Phe Leu Ala Ser Val Ser Asn Ala Ser Ala Ala Leu Glu Phe Ala Ser
    210                 215                 220
Leu Asp Pro Asp His Pro Val Tyr Ile Leu Tyr Ser Ser Gly Thr Thr
225                 230                 235                 240
Gly Ala Pro Lys Pro Ile Val His Gly Ala Leu Gly Thr Leu Leu Gln
                245                 250                 255
His Lys Lys Glu His Val Leu His Cys Asp Ile His Pro Gly Asp Arg
            260                 265                 270
Leu Phe Tyr Phe Thr Thr Thr Thr Trp Met Met Trp His Trp Leu Val
        275                 280                 285
Ser Gly Leu Ala Ser Gly Ala Thr Ile Val Leu Tyr Asp Gly Ser Pro
    290                 295                 300
Phe Arg Pro Leu Asp Pro Glu Gly Gly Asn Gly Glu Met Ala Met Pro
305                 310                 315                 320
Arg Leu Ile Asp Glu Leu Ser Ile Thr His Phe Gly Thr Ser Ala Lys
                325                 330                 335
Tyr Leu Ser Ile Leu Glu Gln Ala Ser Leu Lys Pro Thr Gln His Pro
            340                 345                 350
His Arg Pro Val Thr Leu Arg Thr Leu Lys Ala Ile Phe Ser Thr Gly
        355                 360                 365
Ser Pro Leu Ala Pro Ser Thr Phe Glu Tyr Val Tyr Ser Ser Ile His
    370                 375                 380
Pro Asp Ile Met Leu Gly Ser Ile Thr Gly Gly Thr Asp Ile Leu Ser
385                 390                 395                 400
Leu Phe Cys Ala Cys Cys Pro Ile Leu Pro Val Tyr Lys Gly Glu Ile
                405                 410                 415
Gln Cys Arg Cys Leu Gly Met Ala Val Ser Ala Tyr Asp Tyr Ser Gly
            420                 425                 430
Ser Asp Ile Ser Gly Thr Asn Glu Pro Gly Asp Leu Val Cys Thr Leu
        435                 440                 445
Pro Phe Pro Ala Gln Pro Val Met Phe Trp Pro Pro Gly Pro Val Gly
    450                 455                 460
Ala Glu Lys Tyr Arg Lys Ser Tyr Phe Asp Ile Phe Gly Pro Ser Ile
465                 470                 475                 480
Trp His His Gly Asp Phe Val Arg Ile Asn Pro His Thr Gly Gly Val
                485                 490                 495
His Met Pro Gly Pro Asn
            500
```

<210> 33261
<211> 96
<212> PRT
<213> A.fumigatus

<400> 33261

```
Ser Pro Arg Leu His Thr Leu Leu Ile Trp His His Trp Cys Ala Glu
1               5                   10                  15
Thr His Cys Pro Trp Ser Ala Gly Asn Val Ala Ala Ala Gln Glu Gly
```

```
            20                  25                  30
Ala Arg Ala Pro Leu Arg Tyr Ser Ser Arg Arg Pro Leu Val Leu Phe
        35                  40                  45
Tyr Asp His Asn Leu Asp Asp Val Ala Leu Val Gly Val Trp Ser Cys
    50                  55                  60
Gln Arg Cys His His Arg Pro Leu Arg Arg Phe Ser Phe Pro Thr Leu
65                  70                  75                  80
Gly Pro Gly Arg Arg Glu Arg Gly Asp Gly His Ala Ala Ser Asp Arg
                85                  90                  95
```

<210> 33262
<211> 163
<212> PRT
<213> A.fumigatus

<400> 33262

```
Glu Asp Val Gly Thr Thr Gly Asp Gly Thr Gln His Asn Val Arg Met
1               5                   10                  15
Asn Gly Arg Val His Ile Phe Glu Cys Arg Gly Arg Lys Arg Arg Pro
            20                  25                  30
Gly Ala Glu Asn Ser Leu Gln Cys Ser Gln Ser His Trp Pro Val Arg
        35                  40                  45
Met Leu Arg Trp Phe Glu Gly Gly Leu Leu Gln Asp Gly Lys Val Phe
    50                  55                  60
Cys Arg Cys Pro Glu Met Cys Asp Thr Gln Leu Ile Asp Gln Thr Arg
65                  70                  75                  80
His Gly His Leu Pro Val Pro Ser Phe Arg Val Gln Gly Ser Glu Arg
                85                  90                  95
Arg Thr Val Val Glu Asp Asp Gly Gly Thr Ala Gly Lys Thr Arg His
            100                 105                 110
Gln Pro Val Pro His His Pro Ser Cys Gly Arg Lys Ile Glu Gln Ala
        115                 120                 125
Val Ser Trp Met Asn Ile Ala Met Glu His Val Leu Leu Leu Val Leu
    130                 135                 140
Gln Gln Arg Ser Gln Arg Ser Met Asp Asn Gly Phe Arg Arg Thr Ser
145                 150                 155                 160
Gly Ala Arg
```

<210> 33263
<211> 220
<212> PRT
<213> A.fumigatus

<400> 33263

```
Gln Ser Thr Met Ser Ser Asn Val Gly Leu Ser Thr Pro Arg Gly Ser
1               5                   10                  15
Gly Thr Ser Gly Tyr Val Gln Arg Asn Tyr Ala Phe Met Lys Pro Arg
            20                  25                  30
Asn Ala Gly Tyr Gly Ala Pro Tyr Pro Pro Val Ser Gly Ala Asn Ala
        35                  40                  45
Asn Asp Ser Ser Arg Gly Phe Lys Gln Arg Gln Pro Asp Lys Gln Ile
    50                  55                  60
Leu Glu His Asp Arg Arg Arg Ala Val Glu Val Lys Val Met Glu Glu
65                  70                  75                  80
Arg Glu Arg Leu Glu Glu Glu Asn Glu Arg Ile Glu Gln Glu Gly Lys
```

```
                85                  90                  95
Gly Lys Gly Glu Gly Glu Gly Lys Val Leu Ser Glu Glu Glu Ile Glu
            100                 105                 110
Glu Arg Cys Glu Ala Leu Arg Ala Arg Leu Leu Lys Glu Met Glu Glu
        115                 120                 125
Glu Glu Asn Arg Lys Gly Asp Ala Ala Asp Gly Glu Arg Asp Glu Gly
    130                 135                 140
Arg Glu Arg Arg Gly Trp Lys Arg Gly Pro Arg Asp Arg Glu Arg Asp
145                 150                 155                 160
Leu Pro Pro Arg Glu Arg Arg Gln Phe Lys Thr Tyr Gln Val His Glu
                165                 170                 175
Leu Ala Glu Ala Lys Ile Glu Glu Ser Glu Arg Phe Lys Lys Ala Leu
            180                 185                 190
Gly Ile Arg Glu Asp Thr Glu Thr Gly Glu Ile Ser Ser Gly Arg Lys
        195                 200                 205
Asp Tyr Glu Pro Arg Lys Arg Asp Arg Glu Arg Tyr
    210                 215                 220
```

<210> 33264
<211> 136
<212> PRT
<213> A.fumigatus

<400> 33264

```
Tyr Val Leu Asn Cys Leu Leu Ser Leu Gly Gly Arg Ser Arg Ser Leu
1               5                   10                  15
Ser Leu Gly Pro Arg Phe His Pro Leu Arg Ser Leu Pro Ser Ser Leu
            20                  25                  30
Ser Pro Ser Ala Ala Ser Pro Leu Arg Phe Ser Ser Ser Ser Ile Ser
        35                  40                  45
Phe Asn Asn Leu Ala Leu Ser Ala Ser His Arg Ser Ser Ile Ser Ser
    50                  55                  60
Ser Asp Asn Thr Phe Pro Ser Pro Ser Pro Leu Pro Leu Pro Ser Cys
65                  70                  75                  80
Ser Ile Arg Ser Phe Ser Ser Ser Ser Leu Ser Leu Ser Ser Ile Thr
                85                  90                  95
Phe Thr Ser Thr Ala Arg Arg Arg Ser Cys Ser Lys Ile Cys Leu Ser
            100                 105                 110
Gly Cys Arg Cys Leu Asn Pro Arg Leu Glu Ser Leu Ala Phe Ala Pro
        115                 120                 125
Glu Thr Gly Gly Tyr Gly Ala Pro
    130                 135
```

<210> 33265
<211> 181
<212> PRT
<213> A.fumigatus

<400> 33265

```
Leu Lys Cys Phe Val Ala Glu Ala Leu Asn Leu Leu Lys Ser Tyr Asp
1               5                   10                  15
Thr Leu Val Lys Ser Cys Ser His Thr Thr Ser Glu Glu Ala Tyr Phe
            20                  25                  30
Ser Arg Pro His Ala His Pro His Gln Ala Pro Leu Pro Leu Ile Pro
        35                  40                  45
Ser Glu Ser Glu Leu Ser Glu Leu Leu Pro Pro Cys Ala Leu Pro Cys
```

```
    50                  55                  60
Asp Ser Thr Thr Ser Ala Ala Asp Val Arg Gly Thr Ser Ile Ala Leu
65                  70                  75                  80
Phe Ser Pro Ile Ile Ile Gly Cys Met Pro Thr Gln Val Pro Ile Ala
                85                  90                  95
Phe Pro Val Val Ser Ile Gly Phe Ser Gly Leu Ile Lys Arg Ala His
            100                 105                 110
Gln Ala Val Trp Pro Val Phe Glu Asp Asp Met Trp Lys Pro Ser Glu
        115                 120                 125
Arg Leu Met Glu Thr Ile Arg His Tyr Ala Ser Phe Pro Ala Thr Gly
    130                 135                 140
Val Ser Leu Arg Gln Met Val Gln Phe Gly Asp Arg Pro Ser Thr Gly
145                 150                 155                 160
Met Cys Ile His Leu Val Leu Leu Glu Tyr Leu Glu Val Phe Gln Leu
                165                 170                 175
Gly Arg Ser Gln Gly
            180
```

<210> 33266
<211> 235
<212> PRT
<213> A.fumigatus

<400> 33266

```
Val Lys Cys Pro Arg Ser Arg Arg Cys Arg Thr Gly Met Arg Ser Arg
1               5                   10                  15
Ser Arg Tyr Asp Ser Thr Pro His Pro Ser Cys Ser Arg Asn Ser Cys
            20                  25                  30
Ser Arg Ala Pro Gln Glu Ile Ile Asn Leu Pro Arg Pro Thr Leu Ser
        35                  40                  45
Gln Glu Val Lys Ala Arg Leu Leu Arg Pro Gly Lys Met Ser Gly Gly
    50                  55                  60
Phe Ser Lys Ile Leu Ser Glu Thr Thr Gln Asn Pro Ser Ile Lys Glu
65                  70                  75                  80
Gly Gln Tyr Arg Ser Ser Pro Thr Asn Gly Asn Gly Asn Gly Lys Gly
                85                  90                  95
His Val Ser Arg Arg Tyr Phe Tyr Pro Ser Asp Asp Gln Gly His Trp
            100                 105                 110
Pro Pro Glu Leu Asn Asp Tyr Asn Gln Arg Phe Ala Lys Thr Leu Gln
        115                 120                 125
His Ile Lys Arg Arg His Asp Ser Val Val Thr Thr Val Ala Gln Gly
    130                 135                 140
Ile Leu Glu Trp Lys Arg Lys Arg Gln Arg Leu Gln Ile Asp Ser Thr
145                 150                 155                 160
Val Gln Ser Phe Leu Asp Arg Phe Tyr Met Ser Arg Ile Gly Ile Arg
                165                 170                 175
Met Leu Ile Gly Gln His Ile Ala Leu Thr Glu Gln Thr His Val Arg
            180                 185                 190
His Pro Asn Tyr Val Gly Ile Ile Cys Thr Lys Thr Asn Val Arg Glu
        195                 200                 205
Val Ala Leu Glu Ala Ile Asp Asn Ala Arg Phe Val Cys Glu Val Phe
    210                 215                 220
Thr Thr Gly Val Ala Ala Ser Ala Leu Arg Tyr
225                 230                 235
```

<210> 33267

<211> 338
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (194)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33267

```
Phe Arg Val Pro Gly Ser Ser Asp Ala Ala Pro Ser Pro Thr Pro Gln
1               5                  10                  15
Leu Pro Ser Glu Pro Ser Leu Gln Ser Leu Ser Gln Glu Pro Pro Val
            20                  25                  30
Ser Ser Ser Gln Ser Leu Pro Glu Arg Pro Ser Gln Thr Lys Thr Val
        35                  40                  45
Asp Ser Asn Gln Asp Ala Thr Gln Ser Asp Lys Arg Phe Arg Arg Arg
    50                  55                  60
Leu Ser Glu Gln Pro Pro Ser Lys Arg Gln Arg Thr Leu Ser Tyr Ser
65                  70                  75                  80
Leu Phe Pro Ala Pro Ile Asp Arg Ala Arg Phe Leu Gly Asp Leu Thr
                85                  90                  95
Thr Thr Pro Lys Lys Met Ser Gln Ala Val Gln Pro Glu Ser Arg Pro
            100                 105                 110
Asp Glu Ala Glu Lys Pro Ser Ala Ala Gln Asp Gln Pro Pro Ser Thr
        115                 120                 125
Ser Gln Val Thr Asp Val Ser Glu Gln Gly Pro Leu Leu Gln Thr Ala
    130                 135                 140
Glu Asp Thr Thr Gln Lys Lys Arg Lys Arg Ser Pro Ser Pro Asp Val
145                 150                 155                 160
Ile Pro Asn Pro Ala Gly Cys Ser Tyr Gly Leu Asp Leu Asp Tyr Phe
                165                 170                 175
Cys Tyr Ser Ser Asp Ser Glu Glu Glu Ala Asp Val Gln Pro Gln Gln
            180                 185                 190
Ala Xaa Pro Pro Thr Lys Pro Asp Ala Leu Val Lys Ser Ala Val Arg
        195                 200                 205
Ser Ala Met Arg Ser Glu Gln Ala Ser Ala Lys Arg Val Arg Phe Asp
    210                 215                 220
Ala Ser Pro Glu Asp Thr Pro Ser Lys Leu Arg Thr Arg Pro Arg Ala
225                 230                 235                 240
Thr Asp Pro Tyr Thr Gly Arg His Phe Ile Gly Met Gly Asp Ala Ala
                245                 250                 255
Arg Val Thr Thr His Gly Ser Leu Ala Ala Ala Pro Ala Thr Pro Thr
            260                 265                 270
Pro Ala Pro Arg Val Asp Leu Ser Thr Pro Gln Arg Ser Pro Gly Phe
        275                 280                 285
Ile Pro Asn Lys Gln Gly Thr Phe Gln Leu Asp Tyr Asp Ala Phe Ser
    290                 295                 300
Asp Asp Ser Glu Ser Ser Gly Ala Pro Ser Pro Lys Ser Pro Ala Ala
305                 310                 315                 320
Lys Ser Val Thr Glu Thr Gln Thr Thr Thr Thr Ser Thr Glu Val Gln
                325                 330                 335
Glu Arg
```

<210> 33268

<211> 86
<212> PRT
<213> A.fumigatus

<400> 33268
Gly Leu Trp Ala Thr Gln Pro Ala Ala Glu Arg Ala Ser Leu Gly Leu
1 5 10 15
Arg Arg Ala Thr Leu Val Leu Leu Leu His Pro Arg Val Leu Arg Phe
20 25 30
Tyr Leu Arg Pro Arg Val Asn Asp Asn Cys Ser Ala Arg Val His Pro
35 40 45
Pro Pro Ser Ser Arg Gly Pro Phe Ile Val Asn Met Ala Glu Gln Met
50 55 60
Val Leu Arg Gly Thr Leu Glu Gly His Asn Gly Trp Val Thr Ser Leu
65 70 75 80
Ala Thr Ser Leu Glu Lys
85

<210> 33269
<211> 77
<212> PRT
<213> A.fumigatus

<400> 33269
Arg Asn Val Cys Phe Gly Arg Leu Trp Ala Leu Ile Glu His Val Asp
1 5 10 15
Lys Leu Ile Leu Thr Trp Met Phe Leu Ser Asn Ser Pro Asn Met Leu
20 25 30
Leu Ser Gly Ser Arg Asp Lys Thr Leu Ile Ile Trp Asn Leu Thr Arg
35 40 45
Asp Glu Gln Ala Tyr Gly Tyr Pro Lys Arg Ser Leu Glu Gly His Ser
50 55 60
His Ile Val Ser Asp Cys Val Cys Tyr Pro Lys Ser His
65 70 75

<210> 33270
<211> 156
<212> PRT
<213> A.fumigatus

<400> 33270
Arg Asp Trp Leu Thr Ala Cys Val Phe Cys Ser Val Gln Val Ile Ser
1 5 10 15
Ser Asp Gly Ala Tyr Ala Leu Ser Ala Ser Trp Asp Lys Ser Leu Arg
20 25 30
Leu Trp Glu Leu Ala Thr Gly Glu Thr Thr Arg Thr Phe Val Gly His
35 40 45
Thr Ser Asp Val Leu Ser Val Ser Phe Ser Ala Asp Asn Arg Gln Ile
50 55 60
Val Ser Gly Ser Arg Asp Arg Thr Ile Lys Leu Trp Asn Thr Leu Gly
65 70 75 80
Asp Cys Lys Phe Thr Ile Thr Asp Lys Gly His Thr Asp Trp Val Ser
85 90 95
Cys Val Arg Phe Ser Pro Asn Pro Gln Asn Pro Val Ile Val Ser Ala
100 105 110
Gly Trp Asp Lys Leu Val Lys Val Arg Leu Ser Arg Ser Phe Pro Asp

```
        115                 120                 125
Ala Met Tyr Thr Gln Phe Glu Thr Val Cys Pro Asn Asp Val Leu His
    130                 135                 140
Asn Thr Tyr Leu Leu Leu Gln Ser Leu Leu Trp Pro
145                 150                 155

<210> 33271
<211> 179
<212> PRT
<213> A.fumigatus

<400> 33271
Trp Thr Leu Arg Asn Leu Gly Phe Ala Pro Leu Cys Met Gly Pro Thr
1               5                   10                  15
His Leu Phe Pro Trp Gly Ile Glu Ala Asn Pro Arg Ile Pro Phe Arg
            20                  25                  30
Phe Gly Ser Ser Leu Pro Ala Ala Ser Arg Pro Thr Thr Ser Val Thr
        35                  40                  45
Pro Val Thr Ser Thr Pro Ser Pro Ser Pro Pro Met Asp Pro Ser Ala
    50                  55                  60
Pro Pro Val Ala Arg Thr Ala Pro Pro Cys Ser Gly Ile Ser Thr Ser
65                  70                  75                  80
Pro Ser Thr Ser Thr Pro Ser Thr Leu Ala Thr Arg Ser Thr Pro Ser
                85                  90                  95
Ser Ser Pro Pro Thr Ala Thr Gly Ser Ala Pro Pro Pro Pro Ala Pro
            100                 105                 110
Ser Pro Ser Ser Ile Ser Arg Arg Arg Ala Arg Leu Met Ser Ser Ser
        115                 120                 125
Pro Ser Ser Ser Arg Arg Ala Pro Arg Pro Val Ser Pro Ser Val Ser
    130                 135                 140
Leu Ser Pro Gly Ala Leu Met Ala Arg Leu Cys Ser Leu Val Thr Leu
145                 150                 155                 160
Thr Thr Arg Ser Val Pro Gly Val Ser Cys Arg Gly His Arg Gly Leu
                165                 170                 175
Thr Ser Val


<210> 33272
<211> 284
<212> PRT
<213> A.fumigatus

<400> 33272
Pro Arg Val Cys Phe Val Pro Cys Arg Ser Ser Pro Pro Thr Val Pro
1               5                   10                  15
Thr Leu Cys Leu Pro Leu Gly Thr Ser Pro Ser Ala Cys Gly Ser Ser
            20                  25                  30
Leu Pro Ala Arg Pro Leu Val Pro Ser Leu Ala Thr Pro Ala Thr Ser
        35                  40                  45
Ser Pro Ser Pro Ser Pro Pro Thr Thr Ala Arg Ser Ser Pro Val Leu
    50                  55                  60
Val Thr Ala Pro Ser Ser Cys Gly Thr Pro Ser Ala Thr Ala Ser Leu
65                  70                  75                  80
Pro Ser Pro Thr Arg Ala Thr Pro Thr Gly Phe Pro Ala Phe Ala Ser
                85                  90                  95
Ala Pro Thr Pro Arg Thr Pro Ser Ser Phe Pro Leu Ala Gly Thr Ser
```

```
            100                 105                 110
Ser Ser Arg Tyr Val Tyr Pro Asp Leu Ser Leu Thr Arg Cys Ile Pro
        115                 120                 125
Asn Ser Lys Pro Ser Ala Gln Met Met Phe Cys Ile Ile Arg Ile Cys
    130                 135                 140
Tyr Phe Arg Ala Phe Tyr Gly His Glu Thr Asn Asn His Gln Cys Pro
145                 150                 155                 160
Asp Gly His Phe Ala Ile Leu Val Leu His Leu Tyr Ala Trp Asp Gln
                165                 170                 175
Leu Ile Tyr Ser Pro Gly Gly Leu Lys Leu Thr Gln Gly Tyr Pro Leu
            180                 185                 190
Gly Leu Gly Ala Arg Phe Leu Pro Pro Pro Asp Arg Pro His Arg Ser
        195                 200                 205
His Arg Leu His Gln His Arg His His Leu Pro Arg Trp Ile Pro Leu
    210                 215                 220
Arg Leu Arg Trp Gln Gly Arg His His His Ala Leu Gly Ser Gln Arg
225                 230                 235                 240
Val Gln Ala Pro Leu Leu Pro Pro Arg Trp Arg Arg Asp Pro Arg Pro
                245                 250                 255
Arg Leu Leu Pro Gln Pro Leu Leu Ala Leu Arg Arg His Arg Gln Leu
            260                 265                 270
His His His Leu Arg Ser Arg Glu Glu Glu Gln Gly
        275                 280
```

<210> 33273
<211> 141
<212> PRT
<213> A.fumigatus

<400> 33273

```
Val Trp Glu Leu Ala Ser Cys Arg Leu Gln Thr Asp His Ile Gly His
1               5                   10                  15
Thr Gly Tyr Ile Asn Thr Val Thr Ile Ser Pro Asp Gly Ser Leu Cys
            20                  25                  30
Ala Ser Gly Gly Lys Asp Gly Thr Thr Met Leu Trp Asp Leu Asn Glu
        35                  40                  45
Ser Lys His Leu Tyr Ser Leu His Ala Gly Asp Glu Ile His Ala Leu
    50                  55                  60
Val Phe Ser Pro Asn Arg Tyr Trp Leu Cys Ala Ala Thr Ala Ser Ser
65                  70                  75                  80
Ile Thr Ile Phe Asp Leu Glu Lys Lys Ser Lys Val Asp Glu Leu Lys
                85                  90                  95
Pro Glu Phe Ile Glu Lys Ser Ser Lys Ala Arg Glu Pro Glu Cys Ile
            100                 105                 110
Ser Leu Ala Trp Ser Ala Asp Gly Gln Thr Leu Phe Ala Gly Tyr Thr
        115                 120                 125
Asp Asn Lys Ile Arg Ala Trp Gly Val Met Ser Arg Ala
    130                 135                 140
```

<210> 33274
<211> 318
<212> PRT
<213> A.fumigatus

<400> 33274

```
Leu Ala Ser Ile Leu Ser Gln Lys Arg Trp Trp Glu Ser Ile Ser Gln
```

```
1               5                   10                  15
Val Ser Arg Met Leu Glu Lys Ala Gly Leu Ala Lys Pro Ala Ile Gln
            20                  25                  30
Val Leu Glu Arg Thr Lys Thr Glu Cys Leu Lys Trp Val Glu Glu Gly
        35                  40                  45
Arg Lys Lys Lys Asp Ala Gln Arg Pro Glu Ala Glu Ala Val Thr Glu
    50                  55                  60
Ser Ile Gln Ile Asp Asp Pro Asp Ala Leu Val Met His Gln Lys Met
65                  70                  75                  80
Lys Glu Leu Asp Glu Tyr Glu Asp Arg Gln Arg Asp Lys Val Leu Lys
                85                  90                  95
Lys Val Val Gly Ile His Met Lys Leu Ala Glu Leu Tyr Ala Ser Asp
            100                 105                 110
Tyr Ile Gln Asp Glu Lys Lys Ala Glu Gly Tyr Gln Glu Ala Ala Val
        115                 120                 125
Glu Leu Cys Leu Lys Glu Leu Arg Arg Arg Gln Glu Leu Gly Leu Pro
    130                 135                 140
Val Gly Ser Ala Ser Gln Asp Ser Thr Ala Trp Leu Asn Leu Ser Glu
145                 150                 155                 160
Ile Ala Thr Ala Leu Thr Asp Leu Gly Gln Thr Tyr Leu Lys Gln Glu
                165                 170                 175
Lys Asn Glu Leu Ala Met Pro Leu Leu Leu Arg Ala Leu Asp Leu Leu
            180                 185                 190
Arg Thr Asp Glu Gly Ser Thr Pro Ser Cys Lys Gln Val Thr Leu Leu
        195                 200                 205
Ala Asn Val Ser Thr Ala Ile Thr Gly Glu Leu His Lys Lys Thr Pro
    210                 215                 220
Ser Arg Gly Ser Thr Ala Ala Pro Gln Gln Leu Ile Asp Ser Gly Asn
225                 230                 235                 240
Gln Trp Ala Gln Lys Ala Leu Asp Val Ala Ala Asn Leu Gln Pro Pro
                245                 250                 255
Ile Arg Asp Glu Glu Cys Asp Val Ser Cys Ile Ala Ala Met Tyr Asn
            260                 265                 270
Leu Gly Glu Ile Ala His Leu Gln Gly Lys Arg Lys Glu Ala Glu Gln
        275                 280                 285
Tyr Trp Lys Glu Ala Lys Ser Leu Ala Arg Gly Leu Gly Leu Glu Glu
    290                 295                 300
Asn Ala Ala His Val Glu Glu Ala Leu Ala Gln Leu Thr Lys
305                 310                 315
```

<210> 33275
<211> 184
<212> PRT
<213> A.fumigatus

<400> 33275

```
Thr Pro Lys Arg Ala Ile Leu Thr His Glu Gln His Gln Leu Gly Thr
1               5                   10                  15
Lys Val Ser Pro Ala Asp Phe Lys Pro Glu Phe Arg Ala Glu Thr Tyr
            20                  25                  30
Pro Pro Gly Thr Ala Pro Ala Ser Asn Ser Tyr Thr Pro Asn Thr Thr
        35                  40                  45
Gly Glu Ser Gly Gly Gln Ala Leu Asn Pro Leu Val Glu Arg Ser His
    50                  55                  60
Gly Lys Glu Ala Val Lys Thr Thr Ala Glu Ser Thr Leu Arg Gly Ala
65                  70                  75                  80
```

```
Thr Ser Lys Asp Val His Arg Gly Leu Gly His Pro Gly Ser Gly Gln
                85                  90                  95
Thr Lys Thr Glu Ile Lys His Asp Gly Gln His His Arg Lys His Glu
            100                 105                 110
Gly Ala Gly Leu Glu Gly Val Gly Ser Tyr Arg Glu Asp Lys Phe Glu
        115                 120                 125
Arg Thr Leu Ala Asp Gln Arg Gly Ile Glu Arg Glu Glu Ala Arg Pro
    130                 135                 140
Asn Asp His Gly Asp Lys Gly Val Ser Ala Ala Glu Asp Ile Pro Pro
145                 150                 155                 160
Gln Ser Ala Glu Met Ala Ala His Glu Trp Lys Tyr Glu Pro Gly Thr
                165                 170                 175
Lys Lys Asp Asn Ala Ala Arg His
            180
```

<210> 33276
<211> 141
<212> PRT
<213> A.fumigatus

```
<400> 33276
Tyr Thr Cys Ser Ile Val Leu Gln Lys Leu Ile Asp Gly Gly His Lys
1               5                   10                  15
Val Ile Ile Ile Thr His Ala Tyr Lys Gly Arg Thr Gly Val Arg Tyr
            20                  25                  30
Leu Thr Asn Gly Leu Lys Val Tyr His Ile Pro Phe Phe Val Ile Tyr
        35                  40                  45
Arg Glu Ser Thr Met Pro Thr Val Phe Ser Phe Phe Pro Leu Phe Arg
    50                  55                  60
Asn Ile Val Ile Arg Glu Gln Val Gln Ile Val His Gly His Gly Ser
65                  70                  75                  80
Met Ser Ser Leu Cys His Glu Ala Ile Leu His Ala Arg Thr Met Gly
                85                  90                  95
Leu Arg Thr Val Phe Thr Asp His Ser Leu Phe Gly Phe Ala Asp Ala
            100                 105                 110
Gly Ser Ile Leu Ala Asn Lys Met Leu Lys Phe Thr Leu Ser Asp Val
        115                 120                 125
Asp His Val Ile Cys Val Ser His Thr Trp Tyr Val Arg
    130                 135                 140
```

<210> 33277
<211> 343
<212> PRT
<213> A.fumigatus

```
<400> 33277
Val Leu Pro Gly Asp Ser Lys Glu Asn Thr Val Leu Arg Ala Ser Leu
1               5                   10                  15
Asp Pro Leu Met Val Ser Val Ile Pro Asn Ala Val Val Ala Glu Asn
            20                  25                  30
Phe Arg Pro Leu Ser His Asp Ala Gln Lys Gly Glu Arg Thr Ser Gly
        35                  40                  45
Glu Ile Glu Arg Arg Pro Ser Pro Ala Pro Ile Gly Pro Asp Asp Thr
    50                  55                  60
Ile Thr Ile Val Val Ile Ser Arg Leu Phe Tyr Asn Lys Gly Thr Asp
65                  70                  75                  80
```

```
Leu Leu Ile Ala Val Ile Pro Arg Ile Leu Ala Ser His Pro Asn Val
                85                  90                  95
Arg Phe Ile Val Ala Gly Ser Gly Pro Gln Ala Ile Asp Leu Glu Gln
            100                 105                 110
Met Leu Glu Arg Asn Val Leu Gln Asp Lys Val Glu Leu Leu Gly Ser
        115                 120                 125
Ile Arg His Glu Glu Val Arg Asp Val Met Val Arg Gly His Ile Tyr
    130                 135                 140
Leu His Pro Ser Leu Thr Glu Ala Phe Gly Thr Val Ile Val Glu Ala
145                 150                 155                 160
Ala Ser Cys Gly Leu Tyr Val Val Cys Thr Arg Val Gly Gly Ile Pro
                165                 170                 175
Glu Val Leu Pro Gln His Met Thr Thr Phe Ala Lys Pro Glu Glu Asp
            180                 185                 190
Asp Leu Val Leu Ala Thr Glu Lys Ala Ile Ala Ala Leu Arg Ser Asn
        195                 200                 205
Lys Val Arg Thr Asp Arg Phe His Asp Gln Val Lys Met Met Tyr Ser
    210                 215                 220
Trp Thr Asp Val Ala Gln Arg Thr Glu Arg Val Tyr Lys Gly Ile Thr
225                 230                 235                 240
Gly Asp Ile Ser Pro Glu Glu Phe Tyr Gly Tyr Tyr Pro Gly Gln Gly
                245                 250                 255
Trp Glu Ala Asn Ala Asp Arg Val Arg Ser Phe Ala Leu Ile Asp Arg
            260                 265                 270
Leu Lys Arg Tyr Tyr Gly Cys Gly Val Trp Ala Gly Lys Leu Phe Cys
        275                 280                 285
Leu Cys Ala Val Ile Asp Phe Leu Leu Tyr Val Phe Leu Glu Met Trp
    290                 295                 300
Phe Pro Arg Ser Asn Ile Asp Ile Ala Arg Ser Trp Pro Lys Lys Leu
305                 310                 315                 320
Gly Pro Asn Gly Glu Lys Ser His His Leu Asn Asn Arg Ala Arg Thr
                325                 330                 335
Ser Gln Glu Arg Leu Ala Pro
            340

<210> 33278
<211> 587
<212> PRT
<213> A.fumigatus

<400> 33278
Leu Pro Arg Ser Glu Gly Pro Ser Ser Arg Leu Val Lys Thr Gln Asn
1               5                   10                  15
Arg Asp Ser Asn Phe Asp Val Leu Asp Tyr Val Asp Pro Leu Ile Gly
            20                  25                  30
Thr Ser Asn Gly Gly His Ser Phe Ala Gly Ala Thr Leu Pro Phe Gly
        35                  40                  45
Met Ala Lys Ala Val Ala Asp Thr Gln Gly Glu Asn Gln Ala Gly Phe
    50                  55                  60
Ala Tyr Asp Thr Gln Val Val Thr Gly Phe Ser His Met His Asp Ser
65                  70                  75                  80
Gly Thr Gly Gly Ser Pro Ser Leu Gly Asn Phe Pro Leu Phe Ala His
                85                  90                  95
Ala Ser Cys Pro Gly Asp Asp Leu Asn Gln Cys Lys Trp Gln Gln Pro
            100                 105                 110
Asp Arg Ala Val Ala Trp Val Pro Asn Ser Pro Lys Ala Arg Pro Gly
```

```
        115                 120                 125
Tyr Phe Ser Ile Ala Leu Glu Asn Gly Val Asn Ala Glu Met Thr Val
    130                 135                 140
Thr Asn Arg Ser Ala Leu Tyr Arg Phe Lys Phe Ser Gly Ala Ser Gly
145                 150                 155                 160
Pro Leu Ser Pro Val Ile Leu Val Asp Leu Ile Asp Leu Pro Gln Ser
                165                 170                 175
Arg Thr Asn Gly Thr Ala Ser Val Asp Pro Leu Thr Gly Arg Leu Thr
            180                 185                 190
Gly Asn Gly Thr Phe Asn Pro Ser Phe Gly Ile Gly Ser Tyr Val Leu
        195                 200                 205
His Phe Cys Ala Asp Phe Lys Gly Ala Glu Leu Arg Asp Thr Gly Val
    210                 215                 220
Trp Leu Lys Thr Arg Ala Gly Thr Asn Gln Thr Thr Val Ser Val Thr
225                 230                 235                 240
Pro Asp Gly Thr Asn Thr Ala Ser Thr Leu Ser Ala Gly Thr Phe Ala
                245                 250                 255
Arg Phe His Ala Pro Ala Asp Lys Thr Ile Leu Ala Arg Val Gly Val
            260                 265                 270
Ser Phe Ile Ser Val Glu Gln Ala Cys Ser Asn Gly Glu Arg Glu Gln
        275                 280                 285
Pro Asp Phe Asp Phe Asp Gly Thr Val Ser Ala Ala Glu Lys Ala Trp
    290                 295                 300
Arg Glu Lys Leu Gln Val Ile Glu Val Asp Ala Glu Ser Val Ser Ala
305                 310                 315                 320
Asp Leu Gln Lys Val Phe Trp Ser Gly Val Tyr Arg Thr Met Ile Ser
                325                 330                 335
Pro Gln Asp Tyr Thr Gly Glu Asn Pro Leu Trp Gln Ser Glu Glu Pro
            340                 345                 350
Tyr Tyr Asp Ser Tyr Tyr Cys Ile Trp Asp Ser Tyr Arg Gly Val His
        355                 360                 365
Gln Leu Leu Thr Leu Leu Asp Pro Ile Ser Gln Ser Arg Met Ile Arg
    370                 375                 380
Ser Leu Val Asp Ile Tyr Arg His Glu Gly Tyr Leu Pro Asp Cys Arg
385                 390                 395                 400
Met Ser Leu Cys Lys Gly Phe Thr Gln Gly Gly Ser Asn Ala Asp Val
                405                 410                 415
Leu Ile Ala Asp Ala Tyr Phe Lys Asn Val Ser Asp Val Asp Trp Ala
            420                 425                 430
Thr Ala Tyr Glu Ala Val Val Lys Asp Ala Glu Val Glu Pro Ala Asn
        435                 440                 445
Trp Asn Val Glu Gly Arg Gly Gly Leu Gln Ser Trp Lys Thr Leu Gly
    450                 455                 460
Tyr Ile Pro Thr Asp Asp Tyr Asp Pro Tyr Gly Ile Gly Thr His Thr
465                 470                 475                 480
Arg Ser Ile Ser Arg Thr Val Glu Tyr Ala Tyr Asn Asp Phe Cys Ile
                485                 490                 495
Ala Ala Leu Ala Lys Arg Leu Gly His Asp Ala Asp Phe Glu Lys Tyr
            500                 505                 510
Ile Gln Arg Ser Thr Asn Trp Gln Asn Met Phe Lys Glu Asp Gln Arg
        515                 520                 525
Ser Tyr Ile Asn Gly Leu Asp Thr Gly Phe Ala Gly Phe Leu Gln Pro
    530                 535                 540
Arg Tyr Leu Asn Gly Thr Trp Gly Phe Gln Asp Pro Ile Phe Cys Ser
545                 550                 555                 560
Pro Leu Tyr Asn Phe Thr Ser Cys Tyr Leu Asn Pro Ala Gly His Glu
```

565 570 575
Thr Tyr Glu Gly Ser Cys Trp Leu Tyr Thr Leu
580 585

<210> 33279
<211> 117
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (115)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33279
Pro Ala Ala Leu Ser Tyr Val Pro His Asp Met Ala Ser Leu Ile Thr
1 5 10 15
Arg Leu Gly Gly Pro Glu Thr Phe Thr Ser Arg Leu Ser Tyr Leu His
20 25 30
Asp Ser Gly Ile Leu Tyr Val Gly Asp Glu Gln Ala Phe Leu Pro Val
35 40 45
Phe Gln Phe His Tyr Ser Gly Arg Pro Gly Leu Ser Ala Ala Arg Ala
50 55 60
His Phe Tyr Ile Pro Ser Gln Phe Asn Ala Thr Ile Pro Gly Ile Pro
65 70 75 80
Gly Asn Asp Asp Gly Gly Ala Met Gly Ala Phe Ala Val Leu Ser Met
85 90 95
Met Gly Leu His His Gly Ala Gly Arg Ile Arg Arg Trp Arg Tyr Val
100 105 110
Tyr Gln Xaa Gln Gln
115

<210> 33280
<211> 316
<212> PRT
<213> A.fumigatus

<400> 33280
His Ala Leu Ser Thr Asp Val Lys Leu Gln Leu Ala Pro Ala Tyr Gly
1 5 10 15
Asp Phe Leu Ala Ala Leu Pro Pro Asn Pro Ser Thr Ser Ala Leu Ala
20 25 30
Gly Lys Met Thr Asp Lys Leu Val Ala Glu Phe Arg Tyr Leu Leu Ala
35 40 45
Gln Ala Thr Gly Ser Thr Ala Lys Phe Leu Gln Tyr Leu Thr Tyr Gly
50 55 60
Tyr Met Ile Asp Asn Ile Ala Leu Leu Ile Thr Gly Thr Leu His Glu
65 70 75 80
Arg Asp Thr Arg Glu Leu Leu Glu Arg Cys His Pro Leu Gly Trp Phe
85 90 95
Glu Thr Leu Pro Val Leu Cys Val Ala Thr Asn Ile Glu Glu Leu Tyr
100 105 110
Asn Ser Val Leu Ile Glu Thr Pro Leu Ala Asp Tyr Phe Lys Gly Ser
115 120 125
Leu Ser His Gln Asp Leu Asp Glu Leu Asn Ile Glu Ile Val Arg Asn
130 135 140

```
Thr Leu Tyr Lys Asn Tyr Leu Glu Asp Phe His Asn Phe Val Asn Thr
145                 150                 155                 160
His Pro Asp Phe Lys Gly Thr Pro Thr Gln Glu Val Met Ser Glu Leu
                165                 170                 175
Leu Gln Phe Glu Ala Asp Arg Arg Ala Ile Asn Ile Thr Leu Asn Ser
            180                 185                 190
Phe Gly Thr Glu Leu Ser Lys Gln Glu Arg Arg Lys Leu Tyr Pro Glu
        195                 200                 205
Phe Gly Lys Leu Tyr Pro Glu Gly Ser Leu Met Leu Ser Arg Ala Asp
    210                 215                 220
Asp Leu Glu Gly Val Ser Leu Ala Val Ser Val Asn Ala Asp Tyr Lys
225                 230                 235                 240
Ala Phe Phe Asp Ala Val Gly Leu Ser Gln Gly Gly Gly Gly Gly Phe
                245                 250                 255
Gly Met Gly Gly Gly Ser Asp Gly Lys Ser Leu Glu Asp Leu Phe Tyr
            260                 265                 270
Gln Lys Glu Met Glu Leu Cys Lys Ile Val Phe Thr Arg Gln Phe Thr
        275                 280                 285
Pro Ala Val Val Tyr Ala Trp Met Arg Leu Lys Glu Gln Val Arg Arg
    290                 295                 300
Ser Ser Ser Met Thr Ile Phe Pro Ser Gln Arg Arg
305                 310                 315
```

<210> 33281
<211> 245
<212> PRT
<213> A.fumigatus

<400> 33281

```
Arg Ala Ser Arg Asn Ser Thr Val Leu Leu Gln Leu Trp Lys Lys Trp
1               5                   10                  15
Leu Arg Leu Trp Lys Glu Arg Leu Leu Leu Ala Leu Pro Ala Cys Trp
            20                  25                  30
Met Arg Leu Arg Met Arg Arg Arg Phe Leu Trp Pro Leu Pro Ile Pro
        35                  40                  45
Ser Ser Val Arg Asp Met Asn Ile Leu Arg Ser Gln Ile Thr Gln Phe
    50                  55                  60
Leu Ile Leu Cys Leu Pro Lys Gly Asn Ala Ile Gly Lys Leu Pro Gly
65                  70                  75                  80
Met Ser Ile Gln Leu Val Ala Asp Ser Thr Thr Thr Asp Ile Phe Arg
                85                  90                  95
Ala Ile Arg Glu His Leu Pro Thr Leu Ile Pro Gly Leu Leu Pro Gln
            100                 105                 110
Asp Met Ser Thr Met Ser Leu Gly Leu Ser His Ser Leu Ala Arg His
        115                 120                 125
Lys Leu Lys Phe Ser Pro Asp Lys Ile Asp Thr Met Ile Val Gln Ala
    130                 135                 140
Ile Gly Leu Leu Asp Asp Leu Asp Lys Glu Leu Asn Thr Tyr Ala Met
145                 150                 155                 160
Arg Val Lys Glu Trp Tyr Gly Trp His Phe Pro Glu Leu Ala Lys Ile
                165                 170                 175
Leu Asn Asp Asn Ile Ala Tyr Ala Lys Leu Val Leu Lys Met Gly Met
            180                 185                 190
Arg Ser Asn Trp Glu Thr Ala Asp Leu Thr Glu Ile Leu Pro Glu Glu
        195                 200                 205
Leu Glu Ala Thr Val Lys Ala Ala Ala Asp Arg Ser Met Gly Thr Glu
```

```
    210                 215                 220
Ile Ser Gln Glu Asp Leu Glu Asn Ile Gln Ala Leu Ala Glu Gln Val
225                 230                 235                 240
Val Gly Phe Ala Glu
                245
```

<210> 33282
<211> 134
<212> PRT
<213> A.fumigatus

<400> 33282

```
Thr His Ile Ala Asp Pro Ser Ser Pro Val Val Lys Ile Leu Pro Pro
1               5                   10                  15
Val Pro Ala Asn Phe Arg Val Ala Asn Lys Asp Thr Thr Leu Pro Val
            20                  25                  30
Gly Gly Gly Pro Asp Gln Lys Ser Pro Val Tyr Ile Arg Lys Gly Thr
        35                  40                  45
Ile Val Thr Tyr Ser Val Tyr Ala Met His Arg Arg Thr Asp Phe Tyr
    50                  55                  60
Gly Pro Asp Ala Asn Glu Phe Arg Pro Glu Arg Trp Glu Glu Asn Gly
65                  70                  75                  80
Lys Arg Gly Trp Glu Tyr Leu Pro Phe Asn Gly Gly Pro Arg Ile Cys
                85                  90                  95
Leu Gly Arg Glu Phe Leu Leu Ser Leu Thr Arg Pro Gln Phe Leu Ala
            100                 105                 110
Asn Ile Cys Arg Thr Ile Arg Thr His Gly Gly Gln Leu His Asp Cys
        115                 120                 125
Gln Val Thr Ser Ala Ile
    130
```

<210> 33283
<211> 341
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (325)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33283

```
Gln Val Gln Ile His Gln Leu Arg Thr Leu Leu Ser Gly Arg Leu Ile
1               5                   10                  15
Glu Pro Ile Ile Pro Ile Ile Asn Pro Lys Val Ala Ser Arg Arg Pro
            20                  25                  30
Leu Pro Lys Ser Pro Arg Val Leu Phe Glu Gln Leu Ser Gln Thr Ala
        35                  40                  45
Arg Ala Ser Val Ala Glu Val Gln Glu Phe Gln Ala Met Trp Arg Ser
    50                  55                  60
Pro Glu Met Lys Ala Ile Trp Asp His Val Asp Ala Arg Ile Lys Gln
65                  70                  75                  80
Asn Gly Gly Gln Leu Leu Gln Pro Thr Gly Met Trp Glu Gln Asp Tyr
                85                  90                  95
Asp Val Leu Leu Glu Glu Leu Glu Lys Glu Glu Gln Ala Gln Lys Glu
            100                 105                 110
```

```
Gln Gln Gln Arg Ala Lys Glu Glu Glu Glu Arg Ala Lys Ile Gln Gly
        115                 120                 125
Val Glu Gly Gly Trp Arg Thr Ile Val Glu Thr Phe Thr Arg Arg Asn
    130                 135                 140
Leu Pro Gly Ile Arg Val Met Ala His Gln Asp Gln Pro Arg Ile Thr
145                 150                 155                 160
Val Val Ser Val Lys Ala Gly Met Ala Phe Gln Leu Gln Ala Val Asn
                165                 170                 175
Gly Asp Gly His Asp Met Val Asp Trp Arg Val Gln Glu Leu Ala Ala
            180                 185                 190
Pro Gly Arg Pro Lys Thr Lys Leu Glu Thr Ala Val Ala Ala Cys Leu
        195                 200                 205
Asn Ala Arg Pro Arg Gln Trp Asp Leu Ala Tyr Leu Leu Val Ser Ser
    210                 215                 220
Asn Ile Asp Ile Asn Asn Arg Tyr Asn Gly Thr Arg Leu Thr Leu Asn
225                 230                 235                 240
Ser Gly His Asp Ser Leu Leu Leu Arg Arg Gln Thr Asp Ala Val Arg
                245                 250                 255
Glu Met Arg Gln Asn Asp Arg Gln Arg Arg Ala Thr Ala Leu Arg Pro
            260                 265                 270
Gln Ala Gln Pro Pro Pro Ile Val Pro Arg Pro Thr Ile Pro Leu Gly
        275                 280                 285
Ser Ile Pro Pro His Leu His Arg Ser Ser Pro Gly Leu Ser Pro Tyr
    290                 295                 300
Leu His Leu Ile Met His Pro Met His Asn Ile Met Pro Ala Gly Tyr
305                 310                 315                 320
Ser Pro Pro Pro Xaa Ser Gln Tyr Pro Pro Arg Lys Leu Asn Gly Pro
                325                 330                 335
Leu Leu Leu Pro Pro
            340
```

<210> 33284
<211> 60
<212> PRT
<213> A.fumigatus

<400> 33284

```
Leu Thr Ser Ala Glu Gln Tyr Ala Leu Thr Glu Ala Ser Phe Thr Ile
1               5                   10                  15
Val Lys Leu Leu Gln Arg Phe Asp Arg Ile Glu Asn Gly Asp Pro Asp
            20                  25                  30
Leu Ile Glu Pro Ile Gln Gln Thr Asn Leu Thr Leu Ala His Asp Arg
        35                  40                  45
Gly Val Tyr Ile Arg Leu Tyr Ser Ser Lys Ala Leu
    50                  55                  60
```

<210> 33285
<211> 79
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (63)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33285
Pro Thr Thr Pro Arg Asn Cys Pro Pro Ser Ala Gly Pro Thr Pro Ser
1 5 10 15
Asn Arg Pro Lys Ala Asn His Ser Ser Gly Lys His Thr Thr Pro Pro
20 25 30
Ala Ser Ile Leu Pro Arg Ser Leu Ala Leu Pro Ser Pro Asn His Ala
35 40 45
Pro His Ala Gln His His Ala Arg Arg Ile Leu Pro Pro Pro Xaa Ile
50 55 60
Pro Ile Ser Pro Pro Glu Ile Lys Trp Ala Pro Pro Pro Pro Ser
65 70 75

<210> 33286
<211> 530
<212> PRT
<213> A.fumigatus

<400> 33286
Arg Leu Asp Leu Phe Asp Leu Glu Glu Phe Tyr Gln Arg Leu Ala Asn
1 5 10 15
Trp Val Gly Asn Pro Thr Val Asp Glu Asp Thr Val Ser Ser Ile Phe
20 25 30
Tyr Leu Val Leu Ala Ile Gly Val Gln Val Ser Glu Val Asn Gln Asp
35 40 45
Leu Ala Glu Gln Tyr Phe Val Ser Gly Arg Gln Leu Ala Phe Ser Ala
50 55 60
Phe Thr Glu Thr Pro Ser Ile Tyr Thr Ile Gln Ser Tyr Val Leu Ile
65 70 75 80
Ser Met Tyr Met Leu Gly Ala Cys Arg Arg Asn Gly Ala Phe Met Asn
85 90 95
Leu Gly Ile Ala Leu Arg Ala Ala Tyr Ala Val Gly Ile His Arg Arg
100 105 110
Asp Ala Asn Ala Leu Phe Cys Thr Arg Glu Arg Arg Ala Arg Glu Arg
115 120 125
Val Trp Lys Ser Leu Arg Met Ile Asp Leu Phe Leu Ser Ala Ser Leu
130 135 140
Gly Arg Pro Pro Ala Thr Ser Asp Phe Asp His Asp Val Arg Asp Pro
145 150 155 160
Ala Thr Leu Ala Gly Glu Gln Gln Leu Pro Arg Pro Glu Ala Gln Leu
165 170 175
Ser Gln Cys Val Val Ala Leu Cys Arg Ile Phe Asp Arg Ile Leu Thr
180 185 190
Glu Val Tyr Met Lys Gln Val Val Ser Ile Asn Val Ala Glu Thr Ile
195 200 205
Ser Asn Gln His Arg Ala Trp Val Arg Tyr Leu Ala Thr Phe Phe Ser
210 215 220
Gly Gln Thr Glu Arg Leu Ser Ser Lys Asn Leu Glu Ser Met Leu Ala
225 230 235 240
Ala Ala His Val Phe Gly Ala Tyr Tyr Trp Ser Ile Ile Leu Leu Thr
245 250 255
Arg Pro Phe Phe Ile Phe Arg Val Ser Gln Tyr Val Lys Ser Lys Ser
260 265 270
Asp Pro Gly Ile Ser Ser Asn Asp Pro Arg Ala Ser Ala Ser Arg Ile
275 280 285
Ala Ile Phe Ser Asp Ala Cys Val Tyr Ser Ala Leu Arg Cys Leu Asn
290 295 300

Ile Val Asp Asp Leu Ser Arg Phe Glu Ala Leu Pro Arg Arg Leu Pro
305 310 315 320
Phe Leu Ile Asn Ser Val Phe Asn Ser Ala Val Val Leu Gly Ala Ala
325 330 335
Phe Phe Ala Glu Tyr Asp Asn Leu Leu Pro Leu Glu Glu Gly Met Asp
340 345 350
Lys Ser Glu Lys Phe Leu Gly Leu Phe Val Pro His Asp Pro His Ala
355 360 365
Cys Arg Phe Tyr Gln Ile Ile Lys Tyr Leu Arg Gly Ala Val Ala Glu
370 375 380
Tyr Val Arg Arg Arg Asn Arg Gln Trp Met Glu Arg Arg Ser Lys Gln
385 390 395 400
Val Asp Gln Leu Phe Gly Gln Val Gly Leu Arg Ser Glu Pro Ser Ala
405 410 415
Ser Ser Asp Asp Val Val Ile Ser Arg Asn Gly Glu Pro Leu Ala Pro
420 425 430
Ser Pro Ser Ser Pro Glu Lys Leu Ala Thr Gly Ser Leu Ser Ala Gln
435 440 445
Gly Ala Gln Pro Thr Ala Ser Thr Gly Glu Ser Glu Asn Asp Ile Trp
450 455 460
Asn Thr Leu Cys Gly Thr Gln Gly Ala Thr Ala Leu Pro Tyr Asp Ser
465 470 475 480
Thr Ile Ser Thr Leu Thr Thr Thr Gly Ile Pro Ile Gly Cys Ser Pro
485 490 495
Gly Gly Thr Leu Thr Thr Ala Gln Pro Gly Met Asp Thr Asp Ala Gly
500 505 510
Gly Arg Arg Pro Ser Phe Pro Arg Gly Asp Glu Gly Ala Ala Lys Ser
515 520 525
Ala Leu
530

<210> 33287
<211> 71
<212> PRT
<213> A.fumigatus

<400> 33287
Ala Ile Tyr Tyr Phe Ser Leu Leu Arg Asn Leu Leu Asp Ile Asn Asp
1 5 10 15
Asn Gly Asp Lys Thr His His Leu Ser Pro Phe Ser Ile Leu Trp Ser
20 25 30
Thr Val Ile Val Val Thr Lys Tyr Ser Ala Thr Ser Ser Ser Leu Leu
35 40 45
Val Leu Pro Arg Gly Ser Leu Phe Ala Ala Ser Asp Leu Gln Tyr Ser
50 55 60
Leu Phe Leu Pro Phe Pro Pro
65 70

<210> 33288
<211> 93
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (86),(87),(88),(91)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33288
Gln Tyr Pro His Thr Gly Tyr Gln Arg Asn Ser Cys Gly Tyr Cys Lys
1 5 10 15
Ser Asp Asn Gly Ser Glu Cys Val Phe Phe Ile Thr Cys Pro Thr Ser
20 25 30
Ser His Leu Pro Ser Phe Ser Ser Leu Cys Phe Asn Ala Phe Ala Asp
35 40 45
Gln Tyr Met Gln Val Leu Pro Thr Thr Leu Val Leu Phe Gln Tyr Ala
50 55 60
Arg Asn Ile Thr Ile Ser Ser Ser Ile Ala Ala Val Phe Thr Thr Gly
65 70 75 80
Trp Gln Gly Arg Ala Xaa Xaa Xaa Ser Ile Xaa Thr Pro
85 90

<210> 33289
<211> 1060
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1060)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33289
Gly Tyr Leu Ser Ser Asp Lys Asp Met Ala Ile Pro Arg Thr Pro Val
1 5 10 15
Lys Ser Gly Gln Glu Leu Tyr Gln Leu Ile Glu Ile Leu Asn Gln Gln
20 25 30
Phe His Leu Glu Ile Pro Asn Pro Arg Ile Tyr Ser Pro Ser Val Gly
35 40 45
Arg Asn Glu Gln Thr Pro Arg Trp Arg Thr Tyr Lys Gly Leu Lys Arg
50 55 60
Leu Tyr Phe Asn Arg Glu Val Gly Leu Gly Arg Ile Leu Asn Asp Phe
65 70 75 80
Glu Glu Trp Val His Ser Arg Pro Thr Ser His Leu Arg Thr His Ser
85 90 95
Gly Val Gly Arg Ile Ser Gln Ser Arg Ser Ala Leu Ser Arg Arg Asp
100 105 110
Gln Leu Met Val Glu Asp Ala Thr Val Ile Ser Thr His Glu Lys Asn
115 120 125
Glu Arg Leu Glu Tyr Leu Leu Lys Leu Val Asp Asp Glu Ile Tyr Leu
130 135 140
Leu Ser Arg Gly Ser Val Arg Val Cys Ala Asp Asp Asn Arg Met Gln
145 150 155 160
Ile Ser Pro Ser Thr Val Leu Arg Pro Pro Lys Arg Arg Ile Pro Glu
165 170 175
Glu Glu Glu Asp Asp Glu Glu Tyr His Thr Ala Pro Asn Ser Pro Val
180 185 190
Lys Asn Pro Thr Val Gln Asp His Val Ala Val Asp Gly Asp Glu Leu
195 200 205
Gln Pro Leu Ala Thr Asp Arg Asp Asn Trp Asn Thr Gly Ser Ser Leu
210 215 220
Met Val Asn Glu Ser Val His Val Phe Lys Thr Pro Met Ala Leu Asp

```
225                 230                 235                 240
Arg Gly Lys Glu Pro Ser Arg Phe Leu Glu Lys Leu Thr Ala Pro Asp
                245                 250                 255
Asn Val His Arg Tyr Asp Thr Ala Pro Ser Ala His Ala Gly Leu Ser
            260                 265                 270
Phe Thr Phe Ser Ser Val Ala Thr Ser Phe Gly Arg Glu Ser Arg Arg
        275                 280                 285
Gln Leu Asp Thr Ser Phe Thr Ser Thr Val Thr Asp Val Thr Glu Pro
    290                 295                 300
Met Val Asp Ser Asp Ser Met Tyr Glu Asp Ser Val Val Gly His Leu
305                 310                 315                 320
Ile Ser His Glu Leu Asp Val Thr Ile Asp Asp Ile Gly Pro Met Thr
                325                 330                 335
Glu Thr Pro Pro Glu Glu Ala Pro His Ser Ile Glu Gly Arg Ile Met
            340                 345                 350
Glu Gln Leu Leu His Ser Gly Pro Phe Ser Leu Asp Gln Pro Phe Pro
        355                 360                 365
Lys Ser Ile Pro Leu Arg Tyr Arg Tyr Glu Leu Glu Arg Val Gly Arg
    370                 375                 380
Ala Trp Gly Val Pro Leu Gly Arg Met Leu Val Gly Ser Ser Met Ser
385                 390                 395                 400
Phe Lys Ser Tyr Gly Glu Phe Trp Lys Trp Ile Glu Gly His Asn Gln
                405                 410                 415
Arg Cys Gly Lys Pro Leu Pro Glu Lys Ser Thr Ser Lys Ala Trp Glu
            420                 425                 430
Ala Val Thr Gly Ser Phe Lys Thr Asp Lys His Ser Glu Val Val Ile
        435                 440                 445
Leu Ser Gly Asp Leu Asp Trp Cys Ser Glu Ser Glu Pro Gly Ile Leu
    450                 455                 460
Lys Phe Lys Leu Asn Pro Leu Lys Thr Glu Arg Thr Cys Arg Phe Arg
465                 470                 475                 480
Arg Arg Phe Gly Ser Asp Arg Tyr Leu Ser Leu Thr Met Pro Ala Pro
                485                 490                 495
Ala Arg Pro Pro Arg His Leu Arg Phe Ser Ser His Pro Thr Leu Leu
            500                 505                 510
Arg Glu Ser Leu Ala Leu Trp Leu Thr Gln His Val His Arg Cys Leu
        515                 520                 525
Gly Arg Thr Trp Arg Pro Phe Tyr Val Glu Asp Val Lys Thr Lys Arg
    530                 535                 540
Lys Val Lys Thr Thr Glu Pro Arg Phe Arg Val Glu Phe Phe Ala Ile
545                 550                 555                 560
Asp Gly Val Asp Phe Gly His Ser Pro Gly Thr Val Pro Ser Ile Ala
                565                 570                 575
Pro Gln Gly Gln Asp Ser Asp Asn His Thr Pro Met Ser Leu Glu Ala
            580                 585                 590
Leu Ile Asp Trp His Met Pro Leu Glu Ala Asn Val Asn Gln Ser Asn
        595                 600                 605
Cys Lys Leu Phe Gln Arg Ile Ser Leu Gly Leu Ser Lys Thr Tyr Ala
    610                 615                 620
Thr Val Thr Leu Lys Pro Trp Gln Ile Leu His Leu Arg Asp Val Pro
625                 630                 635                 640
Asn Arg Pro Val Met Asn Asp Gly Cys Ala Leu Met Ser Arg Pro Leu
                645                 650                 655
Ala Asn Ala Ile Cys Asp Gln Leu Gly Ile Thr Gly Asn Thr Pro Ser
            660                 665                 670
Ala Phe Gln Gly Arg Ile Ala Gly Ala Lys Gly Leu Trp Met Val Asp
```

675 680 685
Arg His Asn Ser Gly Ile Ser Gly Gly Gly Asp Asp Phe Trp Ile Gln
690 695 700
Ile Ser Asp Ser Gln Leu Lys Ile Gln Pro His Pro Gln Ala Trp Arg
705 710 715 720
Gly Pro Val Asp Asp Glu Lys Leu Thr Phe Glu Val Val Lys Trp Ser
725 730 735
Lys Pro Leu His Pro Val Glu Leu Asn Thr Gln Leu Leu Ala Ile Leu
740 745 750
Glu His Gly Gly Gln Val Arg Glu His Ile Ala Glu Leu Thr Arg Ala
755 760 765
Gly Ile Arg Ala Ile Ser Gln Asp Phe Ala Ser Val Leu Glu Ser Asn
770 775 780
Ser Ala Ala Leu Cys Arg Ser Leu Ile Gln Lys Ile Lys Pro Met Ala
785 790 795 800
Asp Asp Gly Leu Ser Gly Ile Asn Gln Arg Met Lys Arg Leu Glu Gln
805 810 815
Trp Thr Ala Asn Asp Ala Glu Ala Ile Ile Arg Leu Thr Glu Ala Gly
820 825 830
Phe Ala Pro Arg Ser Phe Tyr Pro Leu Arg Arg Arg Leu Gly Arg Cys
835 840 845
Leu Arg Asp Leu Leu Asp Arg Tyr Val Asp Glu Leu His Ile Glu Val
850 855 860
Pro Leu Ser Thr Tyr Ala Phe Cys Ile Ala Asp Pro Tyr Gly Val Leu
865 870 875 880
Lys Glu Asp Glu Val His Phe Gly Phe Ser Asn Asn Trp Arg Asp Ala
885 890 895
Arg Gly Gln Phe Glu Asp Asn Leu Leu Asp Gly Val Asp Val Leu Val
900 905 910
Gly Arg Leu Pro Ala His Val Pro Ser Asp Ile Gln Arg Arg Arg Ala
915 920 925
Val Trp Lys Thr Glu Leu Arg His Phe Lys Asp Val Ile Val Phe Pro
930 935 940
Thr Thr Gly Asp Ile Pro Leu Ala His Met Leu Ser Gly Gly Asp Tyr
945 950 955 960
Asp Gly Asp Thr Pro Trp Ile Cys Trp Asp Gln Asn Ile Val Gln Arg
965 970 975
Phe Gln Asn Ser Asp Leu Pro Thr Glu Glu Tyr Pro Pro Glu His Phe
980 985 990
Gly Leu Thr Lys His Ser Val Ser Met Arg Asp Ile Gln Ser Thr Asp
995 1000 1005
Glu Phe Leu Gln Ser Ala Phe Thr Phe Asn Leu Thr Thr Ser Asn Leu
1010 1015 1020
Cys Arg Cys Thr Val Glu His Glu Lys Asn Ala Tyr Asp Glu Ser Ile
1025 1030 1035 1040
Asp Ser Ala Arg Ala Lys Glu Leu Ala Cys Leu Leu Ser His Leu Val
1045 1050 1055
Asp Gly Arg Xaa
1060

<210> 33290
<211> 171
<212> PRT
<213> A.fumigatus

<400> 33290

```
Pro Arg Lys Leu Trp Gln Gly Gly Leu Ser Asn Phe Glu Ala Ser Val
1               5                  10                  15
Asn Glu Arg Ile Asp Ala Ala Asn Val Thr Arg Arg Cys Glu Gln Pro
            20                  25                  30
Gln Gln Ser Gln Gln Gln His Leu Pro Pro Pro Asn Gly Pro Gln Leu
        35                  40                  45
Asn Asn Pro Pro Ala Ser Asn Leu Leu Leu Pro Ala Met Thr Asn Gly
    50                  55                  60
His Trp Lys Thr Glu Glu Leu Gly Tyr Phe Trp Pro Asp Met Pro Glu
65                  70                  75                  80
Asp Ala Ser Ile Lys Gln Tyr Asn Thr Ser Leu Phe Tyr Lys Asp Val
                85                  90                  95
Asn Val Phe Thr Asp Arg Val Lys Asp Val Ile Asp Tyr Lys Gly Glu
            100                 105                 110
Pro Leu Val Lys Ala Asn Leu Gln Val Ser Leu Arg Gly Ala Ala Leu
        115                 120                 125
Asp Trp Phe Thr Asn Glu Leu Thr Glu Leu Glu Lys Gln Ser Leu Cys
    130                 135                 140
Ala Leu Pro Leu Asp Gln Gly Trp Leu Pro Glu Leu Val Lys Arg Phe
145                 150                 155                 160
Arg Pro Arg Ala Ala Asp Ala Leu Val Lys Leu
                165                 170
```

<210> 33291
<211> 77
<212> PRT
<213> A.fumigatus

<400> 33291

```
Ser Leu Ser Tyr Gly Tyr Asn Asp Val Arg Asn Asp Arg Thr Pro Arg
1               5                  10                  15
Ala Phe Ala Gln Asp Val Ile Cys His Ala Arg Ala Ala Gln Val Asn
            20                  25                  30
Asp Ile Phe Asn Gln Ile Thr Met Val Trp Thr Arg Leu Glu Pro Tyr
        35                  40                  45
Leu Arg Arg Asp Ile Pro Lys Pro Thr Pro Thr Thr Thr Leu Thr Gln
    50                  55                  60
Phe Leu Glu Gln Leu Glu Ser Arg Ser Gly Ile Val Phe
65                  70                  75
```

<210> 33292
<211> 695
<212> PRT
<213> A.fumigatus

<400> 33292

```
Leu Pro Gly Ser Leu Lys Leu Ser Glu Val Glu Met Glu Gly Ser Val
1               5                  10                  15
Val Glu Gly Ile Ser Thr Ser Leu Pro Thr Cys Pro Leu Phe Ser Gln
            20                  25                  30
Pro His Asp Ser Gln Ser Leu Phe Ala Pro Glu Gly Leu Pro Thr Pro
        35                  40                  45
Pro Ser Tyr His Asp Met His Val Asn Asp Leu Gly Leu Thr Pro Pro
    50                  55                  60
Pro Gly Ser Gln Leu Leu Gln Pro Thr Asn Ala Thr Gly Pro Lys Pro
65                  70                  75                  80
```

```
Leu His Asp Glu His Gly Ser Ser Ser Gly Asp Val Arg Ile Ser Met
                85                  90                  95
Ala Gly Gln Pro Thr Gly Ser Asn His Asp His Gln Thr Arg Gly Ser
            100                 105                 110
Arg Lys Gly Thr Ser Asp Asp Pro Ser Pro Leu Lys Arg Arg Arg Ser
        115                 120                 125
Ser Asn Pro Glu Val Gly Pro Phe Phe Pro Asp Gly Pro Ala Ala Ser
    130                 135                 140
Pro Ile Gly Ser Ile Glu Val Ala Ala Asn Ala Ala Ala Gln Thr Arg
145                 150                 155                 160
Leu Pro Gln Pro Leu Ser Ser Asn Asn Thr Pro Asn Ala Asp Asn Leu
                165                 170                 175
Leu Tyr Asp Pro Leu Phe Gly Pro Asp Phe Met Leu Pro Asn Phe Asp
            180                 185                 190
Ala Asn Pro Ser Ser Leu Lys Arg Thr Ala Asp Glu Ala Leu Ala Asp
        195                 200                 205
Asp Phe Gln Val Trp His Arg Pro Glu Lys Arg Leu Ile Pro Asp Ser
    210                 215                 220
Leu Gln Cys Ser Asn Ala Pro Ser Leu Asp Ala Thr Pro Ser Leu Ser
225                 230                 235                 240
Ser Pro Asp Thr Ile Gln Leu Asp His Phe Glu Thr Val Pro Asn Thr
                245                 250                 255
Pro Gly Gly Ile Ala Asp Ser Gln Leu Pro Ala Pro Pro Phe Asp Pro
            260                 265                 270
Phe Gly Ser Leu Phe Glu Asp Pro Ala Phe His Ile Pro Ser Asp Leu
        275                 280                 285
Ser Lys Ile Glu Tyr Ser Ser Glu Asn Arg Gln Ala Pro His Ser Ala
    290                 295                 300
Asp Ala Glu Pro Ser Tyr Asp Ala Ser Cys Pro Pro Ser Phe Asn Val
305                 310                 315                 320
Gln Val Gln Ala Ala Asp Pro Val Thr Phe Asp His Glu Thr Glu Ser
                325                 330                 335
Val Ser Leu Ser Thr Ser Glu Leu Thr Lys Arg Gln Phe Ser Leu Asp
            340                 345                 350
Thr Gln Asp Val Leu Ala Asn Ala Asp Arg Glu Thr Leu Gln Arg Val
        355                 360                 365
Asp His Val Pro Glu Tyr Thr Ser Pro Tyr Pro Met Tyr His Gly Pro
    370                 375                 380
Leu Gly Tyr Leu Pro Ser Ala Pro Gly Ile His Val Lys Cys Ile Gln
385                 390                 395                 400
Ile Ala Asn Asp Gln Val Asn Ala Arg Phe Ser His Leu Lys Tyr Lys
                405                 410                 415
Val Gln Gln Leu Lys Tyr Glu Arg Asp Lys Tyr Arg Asp Ala Trp Ser
            420                 425                 430
Lys Trp Thr Ala Leu Glu Ala Ser Thr Gly Lys Pro Arg Ala Gln Ile
        435                 440                 445
Leu Glu Glu Glu Asn Ala Thr Leu Arg Arg Val Ser Thr Gln His Gln
    450                 455                 460
Arg Arg Ala Glu Gln Tyr Lys Gln Glu Ile Glu Val Trp Lys Gly Arg
465                 470                 475                 480
Leu His Asp Leu Ser Val Ile Tyr Asn Asn Leu Leu Tyr Glu Ile Gln
                485                 490                 495
Val Gln Lys Lys Ile Pro Ala Val Ala Pro Ile Pro Arg Gly Tyr Arg
            500                 505                 510
Pro Arg Tyr Gln Pro Gln Ala Ala Thr His Val Gln Ser Val Ala Pro
        515                 520                 525
```

```
Gly Gln Gln Leu Ala Ser Thr Pro Tyr Ile Pro Val Pro His Gln Asn
    530                 535                 540
Ser Pro Pro Ser Asn Phe Pro Pro Ser Gly Ile Thr Thr Gly Ser Val
545                 550                 555                 560
Gln His Pro Ser Pro Ala Glu Pro Leu Pro Glu Thr Met Thr Ile Asp
                565                 570                 575
Leu Thr Asp Glu Ala Pro Asn Val Ser Pro Asn Pro Ser Ser Ile Ala
            580                 585                 590
Pro Ser Lys Pro Met Gln Glu Ser Gly Glu Leu Leu Gln Ser Leu Gln
        595                 600                 605
Lys Lys Lys Tyr Asn Trp Leu Glu Thr Ala Lys Leu Gly Ser Ala Gln
    610                 615                 620
Pro Val Val Ala Arg Ala Gly Pro Arg Pro Leu Pro Arg Pro Glu Ser
625                 630                 635                 640
Ala Pro Arg Ala Ser Gln Leu Pro Pro Pro Pro Arg Ser Ser Ser Asn
                645                 650                 655
Gln Gln Pro Ser Ile Pro His Pro Val Thr Gln Ala Ala Ser Ser Val
            660                 665                 670
Asn His Asp Asp Glu Ile Asp Val Glu Asp Asp Leu Leu His Glu Met
        675                 680                 685
Glu Glu Glu Leu Ala Arg Gly
    690                 695
```

<210> 33293
<211> 65
<212> PRT
<213> A.fumigatus

<400> 33293

```
Trp Asp Arg Lys Arg Asp Gly Arg Thr Arg His Arg Asp Gly Gln Gly
1               5                   10                  15
Leu Gly Thr Ala Thr Gly Cys Asn Phe Ile Ser Val Tyr Arg Trp Trp
            20                  25                  30
Thr Ile Val Arg Cys Trp Ile Gln Phe His Tyr Leu Ser Thr Ser Glu
        35                  40                  45
Gly Arg Ile Thr Arg Arg Asn Lys Thr Ala Phe Thr Leu Lys Val Ile
    50                  55                  60
Tyr
65
```

<210> 33294
<211> 486
<212> PRT
<213> A.fumigatus

<400> 33294

```
Gln Thr Pro Arg Met Asn Met Ala Lys Lys Pro Ala Thr Arg Leu Met
1               5                   10                  15
Leu Thr Ala Ala Leu Leu Ser Ala Val Ile Leu Val Ala Lys Leu Gln
            20                  25                  30
Ser Asn His Phe Asp Leu Gln Thr Ser Phe Leu Ser Ser Tyr His Ser
        35                  40                  45
Thr Ala Gly His Tyr Gly Gln Ser His Ile Lys Ala Gly Glu Ser Lys
    50                  55                  60
Thr Ala Cys Ser Gly Gly Pro Gly Ser Glu Ala Trp Ser His Cys Gln
65                  70                  75                  80
```

```
Asp Gly Gln Ser Ala Asp Glu Asp Glu Arg Arg Ala Glu Gln Leu Ala
                85                  90                  95
Lys Glu Met Ser Ser Thr His His Ile Leu Tyr Ser Val Ser Ser Ala
            100                 105                 110
Asp Arg Lys Tyr Phe Lys Ile Asp Phe Gly Ser Arg Ser Val Met Asn
        115                 120                 125
Pro Ser Ile Ile Pro His Pro Glu Leu Leu Asp Thr Trp Ile Ile Thr
    130                 135                 140
Ala Gln Leu His Lys Pro Pro Ser Ala Arg Met Ala Ser Val Trp Phe
145                 150                 155                 160
Ala Glu Leu Val Cys Asn Ala Ala Phe Ser Ala Asp Lys Arg Val Leu
                165                 170                 175
Arg Cys Leu Glu Pro Pro Leu Gln Leu Pro Ile Pro Ala Thr Val Gly
            180                 185                 190
Asp Ser Ser Lys Cys Val Gly Asp Leu Ser Tyr Phe Ser Leu Ser Val
        195                 200                 205
Gly Pro His Asp Ala Arg Val Phe Tyr Gly Pro Glu Ile Pro Tyr Thr
    210                 215                 220
Ile Tyr Gly Ser Asn Ser Phe Phe Thr Cys Phe Gly Gln Trp Ile Ser
225                 230                 235                 240
Asp Phe Arg Ile Leu Val Asp Trp Gly Ile Asp Thr Ile His Glu His
                245                 250                 255
Glu Phe Arg Gln Pro Arg Glu Leu Gln Arg Pro Val Pro Trp Asn Ala
            260                 265                 270
Val Glu Lys Asn Trp Phe Leu Phe Trp Asp Asp Asp Gly Gln Met Phe
        275                 280                 285
Leu His His Asp Ile Ala Pro Val Arg Val Phe Ala Lys Val Glu Leu
    290                 295                 300
Asp Gly Ser Val Gly Pro Asn Leu Ala Leu Ala Thr Ala Thr Ala Asp
305                 310                 315                 320
Gln Ala Cys Leu Thr Arg Phe Leu Pro Leu Ser Thr Gly Pro Ser Glu
                325                 330                 335
Ser Ile His Gln Ala Thr Asn Ser Leu Ala Val Thr Leu Cys Ala Arg
            340                 345                 350
Ser Asp Pro Ser Cys His Pro Asp Thr Ala His Thr Phe Val Leu Phe
        355                 360                 365
Val Val Gln Arg Lys Thr Leu His Gly Leu His Pro Val Tyr Glu Pro
    370                 375                 380
Tyr Val Val Leu Thr Arg Arg Ser Thr Pro Tyr Glu Ile Tyr Ala Val
385                 390                 395                 400
Ser Ser Lys Pro Ile Trp Ile Phe Gly Arg Asn Pro Ala Ala Lys Thr
                405                 410                 415
Thr Glu Gly Ala Ser Ser Ala Leu Val Ala Ala Asp Ser Glu Met Leu
            420                 425                 430
Tyr Met Thr Ser Ile Ser Trp Lys Ser His Gly Gln Lys Tyr His Gly
        435                 440                 445
His Ile Asp Asp Thr Leu Phe Leu Ala Phe Gly Arg Glu Asp Ser Ala
    450                 455                 460
Ala Gly Gly Ile Asp Val Ala Ala Arg Asp Leu Leu Ser Glu Leu Gly
465                 470                 475                 480
Met Cys Ala Gly Pro Asp
                485
```

<210> 33295
<211> 369
<212> PRT

<213> A.fumigatus

<400> 33295

```
Trp Phe Pro Gly Asp Leu Leu Leu Arg His Arg Arg Arg Cys Leu Arg
1               5                  10                  15
Ser Asp Glu Pro Ala Met Arg Arg Lys Ala Cys Asn Ala Cys Val Gln
            20                  25                  30
Ala Lys Thr Lys Cys Cys Tyr Thr Gln Pro Thr Cys Ser Arg Cys Ala
        35                  40                  45
Lys Arg Gly Leu Val Cys Glu Tyr Met Ser Met Ala Lys Thr Ala Ala
    50                  55                  60
Thr Ile Ala Ser Ala Ser Ser Ala Ser Ser Ala Ser Ala Ser Ser Ser
65                  70                  75                  80
Ser Leu Ser Ala Lys Asp Pro Ser Gln Pro Asp Glu Thr Ser Val Ser
                85                  90                  95
Ala Thr Asp Leu Pro Leu Leu Leu Trp Ser Arg Arg Ser Pro Leu Asp
            100                 105                 110
Asp Pro Gly Ala Asp His Ala Asp Ser Trp Ser Ser Gln Asn Phe Leu
        115                 120                 125
Trp Ala Leu Asp Thr Ile Asn Leu Pro Ser Leu Pro Ser Ala Ser Thr
    130                 135                 140
Ser Met Val Asn Glu Val Thr Leu Gly Pro Ala Pro Ala Ile Pro Thr
145                 150                 155                 160
Arg His Pro Ser Leu Thr Phe Pro Leu Thr Ser Pro Ser Ser Gln Pro
                165                 170                 175
Ser Ser Tyr Asn Pro Leu Val Glu Glu Thr Ile Ala Pro Pro Ala Ser
            180                 185                 190
Gly Ile Pro Asp Leu Ser Thr Thr Arg Thr Gly Leu Gly Ser Gln Glu
        195                 200                 205
Asp Ala Thr Thr Asp Ser Pro Pro Ala Pro Leu Ser Lys Pro Asp Gly
    210                 215                 220
Gln Gly Gly Arg Pro Ala Asn Tyr Ala Ser Leu Leu Leu Gln Tyr Pro
225                 230                 235                 240
Lys Arg Leu Leu Gln Asp Asp Phe Tyr Cys Pro Phe Leu His Arg Thr
                245                 250                 255
Leu Phe Asn Asp Asp Met Pro Asp Met Thr Ile Leu Pro His Thr Ser
            260                 265                 270
Met Ala Ile Cys Cys Gly Ser Ala Leu Gly Asn Arg Asp Gly Val Gly
        275                 280                 285
Tyr Ile Lys Arg Ala Met Asp Ala Gln Arg Gln Ser Leu Ile Glu Ser
    290                 295                 300
Tyr Val Ser Thr Val Ala Met Arg Glu Arg Leu Val Thr Ser Ser Gly
305                 310                 315                 320
Leu Thr Thr Arg Leu Ser Ser Gln Pro Thr Thr Val Trp Ser Ser Gly
                325                 330                 335
Thr Arg Cys Met Arg Cys Ser Ser Met Arg Ser Trp Arg Trp Ala Trp
            340                 345                 350
Arg Pro Ser Thr Asn Arg Arg Ala Gly Asn Glu Ser Asp Ala Pro Glu
        355                 360                 365
Gly
```

<210> 33296
<211> 70
<212> PRT
<213> A.fumigatus

<400> 33296
Ile Gly Gln Asp Ile Ala His Lys Pro Gly Val Ala His Ala Leu Leu
1 5 10 15
Val Ile Ser Tyr Arg Ala Ile Pro Phe Asp Ala Ala Thr Ser Thr Met
20 25 30
Pro Gly Ser Glu Pro Pro Asn Gln Ala His Val Cys Asp Ser Cys Phe
35 40 45
Lys Ser Tyr Gln Arg Arg Val Ser Cys Leu Val Ser Ile Val Val His
50 55 60
Ala Ser Gly Ala Asp Ile
65 70

<210> 33297
<211> 250
<212> PRT
<213> A.fumigatus

<400> 33297
Arg Ala Asp Asn Glu Thr Val Gln Pro Thr Tyr His Cys Leu Glu Gln
1 5 10 15
Trp Asp Ala Leu His Ala Met Leu Leu Tyr Glu Ile Leu Glu Met Gly
20 25 30
Met Ala Pro Ile His Glu Ser Glu Ser Trp Lys Arg Lys Arg Arg Thr
35 40 45
Arg Gly Leu Lys Ser Pro Phe Leu Ser Lys Met Thr Gln Cys Phe Ser
50 55 60
Arg Ser Tyr Leu Glu Cys His Asp Val Ala Leu Leu Pro Asp Thr Asp
65 70 75 80
Pro Asn Arg Ser Trp Val Gln Trp Ala Val Thr Glu Thr Ala Arg Arg
85 90 95
Thr Met Phe Leu Ala Asn Ile Val Asn Phe Phe Ser Asn Arg Asp Leu
100 105 110
Glu Ser Gly Arg Gln Leu Pro Tyr Tyr Glu Pro Leu Asn Asp Glu Leu
115 120 125
Ile Met Lys Met Pro Leu Pro Cys Asn Gln Ala Leu Trp Ser Ala Arg
130 135 140
Thr Glu Asp Glu Trp Arg Arg Ala Thr Gln Met Ala Asn Lys Gln Ala
145 150 155 160
Ser Pro Ala Gly Ser Pro Gly Thr Ser Asp Ala Phe Ala Pro Leu Gly
165 170 175
Ala Ala Ala Ala Ala Ser Ala Ala Gly Pro Ala Ala Gly Pro Pro Asn
180 185 190
Ala Val Gly Glu Pro Leu Pro Asn His His His Leu His Leu Leu Ser
195 200 205
Leu Gln Ser Leu Phe Ser Lys Phe Ala Lys Asp Tyr Leu Arg Ala Asn
210 215 220
Phe Thr Thr Asn Ala Gly Phe Gly Asp Ser Asn Glu Leu Arg Ser Phe
225 230 235 240
Ile Ile Leu Cys Ala Leu Glu Gln Phe Ser
245 250

<210> 33298
<211> 65
<212> PRT
<213> A.fumigatus

<400> 33298
Ser Leu Gly Met Ala Cys Ser Ala Ala Ala Val Gly Val Leu Phe Phe
1 5 10 15
Leu Glu Asp Asp Gln Cys Asn Leu Ala Tyr Leu Ser Ile Tyr Cys Gly
20 25 30
Cys Ser Ser Ser Glu Gln Ile Ser Val Pro Ser His Pro Ile Thr Ala
35 40 45
Asp Tyr Ser Lys Leu Val Asn Asp Tyr Gly Pro Gly Glu Met Ile Ser
50 55 60
Gln
65

<210> 33299
<211> 295
<212> PRT
<213> A.fumigatus

<400> 33299
Ser Tyr Pro Gly Pro Arg Gly Ser Ser Gly Ser Ser Arg Ser Leu Arg
1 5 10 15
Asp Pro Arg Arg Asp Arg Pro Ala Gly Ser Asp Gly Ser Thr Ala Thr
20 25 30
Thr Gly Gly Arg Ser Arg Ser Arg Trp Ser Arg Pro Val Gly Lys Gly
35 40 45
Leu Trp Pro Arg Ala Thr Arg Lys Arg Pro Arg Gln Lys Arg Arg Lys
50 55 60
Arg Pro Thr Gln Trp Trp Arg Leu Ser Trp Pro Trp Thr Cys Ile Arg
65 70 75 80
Arg Arg Gly Pro Val Trp His Ser Ala Ser Arg Ser Ala Val Cys Ser
85 90 95
Ser Ile Trp Ser Trp Pro Ala Arg Met His Tyr Thr Pro Cys Gly Ala
100 105 110
Leu Arg Val Arg Pro Ile Ala Asp Thr Val Val Asp Gly Ala Arg Gly
115 120 125
Gly His Leu Glu Thr Ile Ser Leu Asp Val Ser Thr Arg Gly Met His
130 135 140
Asp Asp Arg Asp Glu Thr Arg His Thr Ser Leu Val Ala Leu Glu Thr
145 150 155 160
Gly Val Ala His Val Arg Leu Val Gly Arg Leu Gly Ser Gly His Gly
165 170 175
Arg Ser Cys Gly Ile Glu Gly Asp Cys Pro Val Gly Asn Asp Gln Gln
180 185 190
Ser Val Gly Asn Ala Arg Phe Met Cys Asn Ile Leu Ser Tyr Ser Leu
195 200 205
Ala Asp Ser Trp Gln Gly Ala Ser His Arg Asn Arg His Asp Cys Leu
210 215 220
Leu Asp Pro Ser Ile Ser Ala Ala Trp Ala Gly Arg Gln Ala Gly Val
225 230 235 240
Glu Glu Gly Leu Asp Gly Thr Gln Gly Phe Arg Met Asn Thr Gly Gly
245 250 255
Ser Arg Arg Ile Thr Arg Ala Ile Pro Cys Val Gly Lys Ala Arg Gly
260 265 270
Leu Ile Ala Trp Tyr Gly Val Leu Cys Cys Cys Gly Trp Arg Leu Ile
275 280 285
Leu Pro Gly Arg Arg Pro Met

290 295

<210> 33300
<211> 74
<212> PRT
<213> A.fumigatus

<400> 33300
Lys Leu Gln Arg Val Ser Arg Arg Gly His Phe Ser Pro Val Ser Ile
1 5 10 15
Leu Phe Leu Phe Leu Gly Pro Trp Glu Arg Ala Asn Leu His Phe Arg
20 25 30
Ala Cys Arg Val Gly Val Phe Ala Arg Leu Thr Asn Ser Tyr Ala Ile
35 40 45
Val Ala Ile Gly Ala Ser Glu Asn Phe Tyr Arg Cys Thr Thr His Ala
50 55 60
Pro Val Ile Arg Leu Val Ser Gly Ile Phe
65 70

<210> 33301
<211> 88
<212> PRT
<213> A.fumigatus

<400> 33301
Val Ala Ala Arg Trp Ala Thr Thr Gly Pro Phe Cys Gly Pro Lys Arg
1 5 10 15
Pro Ser Pro Thr Ala Pro Ser Ser Trp Phe Gln Leu Ser Thr Ser Ser
20 25 30
Pro Ala Trp Leu Pro Ile Arg Thr Ser Ser Ser Ala Pro Val Leu His
35 40 45
Thr Pro Ala Ser Ala Gly Pro Tyr Gly Pro Ala Ser Thr Gly Ala Pro
50 55 60
Thr Thr Leu Leu Asn Gly Asn Ala Gly Glu Lys Glu Gly Arg Ser Ser
65 70 75 80
Ser Glu Phe Arg Phe Pro Gln Asp
85

<210> 33302
<211> 106
<212> PRT
<213> A.fumigatus

<400> 33302
Gln Ser Asp Asp Ser Asn Ser Asn Arg Lys Gly Leu Leu Val Pro Thr
1 5 10 15
Thr Thr Thr Asp Gln Glu Leu Gln His Leu Arg Asn Thr Leu Pro Asp
20 25 30
Asp Val Lys Ile Gln Arg Ile Glu Glu Arg Leu Ser Ala Leu Gly Asn
35 40 45
Val Ile Cys Cys Asn Asp His Val Ala Leu Val His Pro Asp Leu Glu
50 55 60
Arg Glu Thr Glu Glu Met Tyr Val Phe Glu Ala Leu Phe Arg Pro Tyr
65 70 75 80
Ser Arg Gly Asn Arg Lys Arg Glu Asn Ser Gly Asn Lys Leu Ala Arg
85 90 95

```
Asp Ala Asn Thr Ile Gln Lys Gln Asn Ser
            100                 105

<210> 33303
<211> 252
<212> PRT
<213> A.fumigatus

<400> 33303
Leu Val Val Val Gln Thr Asp Glu Ser Glu Thr Glu Thr Asp Arg Gly
1               5                  10                  15
Arg Ile Arg Pro Leu Ala Arg Asp Met Lys Arg Gly Tyr Tyr Ser Ser
            20                  25                  30
Phe Val Arg Asn Pro Ala Gly Ala Ala Leu Tyr Glu Arg Ala Leu Asn
        35                  40                  45
Gly Trp Glu Asp Phe Val Gln Arg Ala Lys Leu Gly Gly Asp Ile Glu
    50                  55                  60
Pro Gln Met Asn Asp Met Glu Glu Ala Val Pro Phe Lys Gly Leu Ser
65                  70                  75                  80
Ala His Asp Val Leu Asn Met Ile Ile Glu Ala Thr Gly Val Val Gln
                85                  90                  95
Thr Arg Gly Asp Thr Thr Ala Glu Ser Asn Lys Val Phe Ala Pro Val
            100                 105                 110
Pro Glu Ser Arg Ala Glu Ala Leu Tyr Ala Leu Ala Asp Ala Ala Thr
        115                 120                 125
Ala Ser Pro Leu Pro Leu Pro Arg Ala Ala Ile Thr Pro Arg Thr Pro
    130                 135                 140
Ala His Arg Ala Ile Leu Pro Gln Pro Pro Gln His Pro Gln Leu Pro
145                 150                 155                 160
Ala Ile Gln Ala Pro Ile Asp Pro Arg Ala Phe Val Leu Pro Pro Pro
                165                 170                 175
Asn Pro Gln Arg Gln Gln Pro Arg Arg Leu Leu Pro Ala Gly Gln Leu
            180                 185                 190
Pro Asp Pro Phe Ala Ala Arg Asn Gly Pro Pro Gln Leu Pro Pro Pro
        195                 200                 205
Pro Gly Ser Asn Phe Gln Arg Pro Pro Leu Pro Gly Phe Leu Ser Gly
    210                 215                 220
Pro Pro Pro Pro Pro Leu Tyr Tyr Thr His Pro Pro Pro Pro Gly Pro
225                 230                 235                 240
Thr Gly Pro Pro Pro Gln Gly Pro Arg Pro Pro Phe
                245                 250

<210> 33304
<211> 90
<212> PRT
<213> A.fumigatus

<400> 33304
Leu Ala Phe Ser Arg Leu Gln Ser Arg Arg Phe Cys Pro Pro Asp Lys
1               5                  10                  15
Leu Ile Cys Asp Cys Arg His Arg Arg Phe Arg Glu Leu Leu Gln Val
            20                  25                  30
His Tyr Ser Cys Ser Arg Tyr Ser Pro Cys Lys Arg Asp Leu Leu Thr
        35                  40                  45
Asp Lys Phe Asn Ile Thr Ser Val Phe Glu Ala Glu Leu Gln Asp Val
    50                  55                  60
```

Ile Pro Ile Cys His Ala Thr Ile Ala Gly Thr Arg Ile Val Gly Arg
65 70 75 80
Leu Thr Ala Gly Tyr Val Phe Leu Phe Ile
85 90

<210> 33305
<211> 157
<212> PRT
<213> A.fumigatus

<400> 33305
Cys Ile Arg Ile Leu Ser Gly Lys Gln Arg Lys Cys Thr Phe Leu Arg
1 5 10 15
Pro Ser Ser Val Leu Thr Arg Gly Gly Ile Glu Arg Glu Lys Thr Ala
20 25 30
Gly Ile Asn Trp His Ala Thr Leu Thr Leu Ser Lys Asn Arg Ile Ala
35 40 45
Asp Val Leu Gly Val Glu Val Phe Arg Gln Thr Ile Ala Asp Asn Val
50 55 60
Leu Thr Gly Ser Tyr Met Ala Leu Ser Asn Gln Gly Gly Ile Val His
65 70 75 80
Pro Lys Thr Ser Ile Arg Asp Gln Asp Glu Leu Ser Ser Leu Leu Gln
85 90 95
Val Pro Leu Val Ala Gly Ser Val Asn Arg Gly Ser Pro Val Val Gly
100 105 110
Ala Gly Met Val Val Asn Asp Trp Leu Ala Val Thr Gly Leu Asp Thr
115 120 125
Thr Ala Thr Glu Leu Ser Val Val Glu Ser Val Phe Arg Leu Gly Glu
130 135 140
Ser Ser Pro Arg Gly Trp Lys Asp Pro Arg Trp Arg Tyr
145 150 155

<210> 33306
<211> 66
<212> PRT
<213> A.fumigatus

<400> 33306
Tyr Glu Asn Ser Phe Lys Asp Leu Ser Ile Lys Tyr Ser Thr Ser Phe
1 5 10 15
Ile Pro Glu Asn Pro His Met Ser Thr Glu Asn Lys Ile Ser Gln Arg
20 25 30
Leu Arg Leu Ile Val Ala His Thr Leu Ser His Ser Asn Gly Pro Ala
35 40 45
Met Asp Asp Thr Leu Trp Ser Glu Ile Lys Lys Arg Ile Lys His Arg
50 55 60
Ile Cys
65

<210> 33307
<211> 69
<212> PRT
<213> A.fumigatus

<400> 33307
Ser Ser Val Val Leu Gly Pro Ser Ser Leu Val Thr Gly Pro Asp Ile

```
1               5                   10                  15
Asp Leu Ser Thr Lys Ala Tyr Thr Asp Cys Ser Gly Ala Phe Ala Ile
            20                  25                  30
Cys His Tyr Val Val Thr Ala Asp Phe Val Gly Thr Ile Asn Gly Leu
        35                  40                  45
His Gln Arg Glu Ile Arg Ile Ser Cys Arg Met Asn Leu Glu Arg Ser
    50                  55                  60
Cys Ser Arg Ser Arg
65
```

<210> 33308
<211> 79
<212> PRT
<213> A.fumigatus

<400> 33308

```
Arg Cys Thr Pro Met Ile Met Thr Asn Ser Met Thr Lys Ser Val Arg
1               5                   10                  15
Leu Met Pro Lys Ser Arg Ser Asp Leu Leu Pro Val Pro Leu Val Phe
            20                  25                  30
Pro Ala Arg Leu Thr Leu Asn Pro Pro Phe Gln Asp Ile Ile Pro Phe
        35                  40                  45
Ala Val Val Gly Ser Glu Lys Thr Ile Val Val Asn Gly Gln Gln Val
    50                  55                  60
Arg Gly Arg Gln Asn Arg Trp Gly Val Ile Asn Val Glu Asp Glu
65                  70                  75
```

<210> 33309
<211> 95
<212> PRT
<213> A.fumigatus

<400> 33309

```
Phe Asp Trp Glu Ala Ile Thr Asn Glu Ser Ser Val Leu Lys Met Ala
1               5                   10                  15
Thr Thr Ala Asn Ser Asn Ser Thr Asn Pro Ala Thr Val Phe Pro Arg
            20                  25                  30
Ser His Val Gly Phe Asp Ser Ile Thr Ser Gln Ile Glu Arg Lys Leu
        35                  40                  45
Leu Lys Arg Gly Phe Gln Phe Asn Val Met Cys Val Gly Met Trp Ala
    50                  55                  60
Ala Thr Val Gln Leu Phe Leu Glu Arg Thr His Ile Asp Cys Val Leu
65                  70                  75                  80
Tyr Ser Thr Asn Arg Pro Asp Arg Ser Arg Lys Val Asp Ser Asp
                85                  90                  95
```

<210> 33310
<211> 90
<212> PRT
<213> A.fumigatus

<400> 33310

```
Cys Val Leu Val Cys Gly Leu Gln Leu Ser Ser Cys Ser Leu Asn Glu
1               5                   10                  15
Leu Thr Leu Thr Val Ser Phe Thr Leu Pro Ile Gly Gln Thr Gly Leu
            20                  25                  30
```

```
Gly Lys Ser Thr Leu Ile Asn Thr Ile Phe Ala Ser His Leu Ile Asp
        35                  40                  45
Ser Lys Gly Arg Leu Thr Pro Asn Glu Pro Val Arg Ser Thr Thr Glu
    50                  55                  60
Ile Gln Thr Val Ser His Ser Ala Leu Val Pro Glu Asp Lys Ile Phe
65                  70                  75                  80
Asp Arg Asn Ala Leu Leu Thr Ile Val Tyr
                85                  90
```

<210> 33311
<211> 107
<212> PRT
<213> A.fumigatus

<400> 33311

```
Phe Cys Lys Cys Ser Leu Lys Pro Ile Asp Ile Val Val Leu Lys Lys
1               5                   10                  15
Leu Ser Asp Val Val Asn Val Val Pro Val Ile Ala Lys Ala Asp Ser
            20                  25                  30
Leu Thr Leu Glu Glu Arg Gln Ala Phe Lys Glu Arg Ile Lys Glu Glu
        35                  40                  45
Phe Ala Phe His Asn Leu Lys Met Tyr Pro Tyr Asp Asn Asp Glu Leu
    50                  55                  60
Asp Asp Glu Glu Arg Ala Val Asn Ala Gln Ile Lys Val Arg Pro Thr
65                  70                  75                  80
Thr Arg Ala Thr Cys Ile Ser Cys Pro Pro Asp Ser Lys Pro Ser Leu
                85                  90                  95
Ser Gly His Tyr Ser Ile Arg Arg Arg Arg Gln
            100                 105
```

<210> 33312
<211> 95
<212> PRT
<213> A.fumigatus

<400> 33312

```
Leu Ile His Lys Ile Leu Ser Ala Ser Gly Ala Thr Ala Leu Lys Ile
1               5                   10                  15
His Ser Thr Arg Asp Pro Asp Phe Pro Leu Val Gln Ser Ile Asp Gly
            20                  25                  30
Ala His Lys Val Gly Cys His His Ile Val Thr Asn Gly Lys Gly Ser
        35                  40                  45
Arg Ala Val Ser Val Gly Phe Gly Gly Glu Ile Asn Val Trp Ala Cys
    50                  55                  60
His Glu Gly Thr Trp Ser Lys Tyr Asp Ala Ala Ser Gly Ile Thr Ile
65                  70                  75                  80
Gln Val Leu Val Asn Leu Pro Asp Ser Phe His Tyr Phe Lys Thr
                85                  90                  95
```

<210> 33313
<211> 79
<212> PRT
<213> A.fumigatus

<400> 33313

```
Pro Val Gly Leu Val Lys Pro Val Arg Thr Val Ala Phe Ser Pro Gly
```

```
1               5                   10                  15
Gly Lys Leu Leu Ala Ala Ala Gly Asp Ser Arg Val Ile Val Leu Tyr
            20                  25                  30
Asp Thr Ser Ser Gly Glu Gln Val Ala Asn Leu Ser Gly His Ser Ala
        35                  40                  45
Trp Ile Leu Ser Leu Ser Trp Ser His Thr Gly Glu Tyr Leu Leu Ser
    50                  55                  60
Arg Ser Val Asp Met Thr Asn Leu Lys Thr Phe Arg Ile Tyr Ser
65                  70                  75
```

<210> 33314
<211> 193
<212> PRT
<213> A.fumigatus

<400> 33314

```
Arg Ile Gln Leu Tyr Val Gly Lys Leu Ala Asn Ala Tyr Phe Tyr Asp
1               5                   10                  15
Thr Val Ile Ala Gly Glu Thr Asp Phe Leu Tyr Gly Phe Gly Thr Ala
            20                  25                  30
Phe Ile Glu Lys Thr Thr Leu Ser Leu Arg Gly Cys Gly Gly Gly Ile
        35                  40                  45
Thr Ala Trp Lys Gly Thr Asn Thr Thr Phe Glu Asn Lys Tyr Gly Val
    50                  55                  60
Tyr Ile Ala Asp Ser Gln Val Leu Ala Ala Asn Ala Ser Ile Gly Asn
65                  70                  75                  80
Asp Ile Lys Glu Arg Cys Ser Leu Gly Arg Pro Trp Asn Asn Leu His
                85                  90                  95
Arg Ser Ile Phe Ile Asp Thr Tyr Phe Asp Ser Ser Ile Leu Pro Ala
            100                 105                 110
Gly Tyr Thr Val Trp Lys Gly Ala Pro Asn Asn Asn Phe Asn Asn Glu
        115                 120                 125
Thr Leu Met Ala Val Tyr Gly Val Tyr Gly Pro Gly Tyr Asn Pro Ala
    130                 135                 140
Ala Glu Lys Asn Gly Asn Val Thr Arg Ile Leu His Arg Arg Glu Val
145                 150                 155                 160
Met Pro Tyr Ala Arg Pro Val Asp Val Phe Met Thr Pro Asp Gly His
                165                 170                 175
Gln Pro Asn Ile Ala Trp Leu Asp Pro Ile Ala Ala Ser Ser Gly Arg
            180                 185                 190
Pro
```

<210> 33315
<211> 266
<212> PRT
<213> A.fumigatus

<400> 33315

```
Thr Met Ala Asn Asn Pro Asp Thr Leu Glu Gly Glu Lys Pro Arg Pro
1               5                   10                  15
Leu Ala Glu Gly Lys Lys Ala Ala Arg Lys Glu Gln Ser Met Thr Leu
            20                  25                  30
Trp Gln Ala Val Arg Leu Tyr Pro Lys Ala Val Gly Trp Ser Val Leu
        35                  40                  45
Leu Ser Ser Thr Leu Ile Met Glu Gly Tyr Asp Leu Ala Leu Leu Gly
```

```
    50                  55                  60
Ser Met Tyr Ala Ser Pro Ala Phe Asn Gln Lys Tyr Gly Val Gln Ser
65                  70                  75                  80
Ala Ser Gly Lys Trp Thr Val Pro Ala Ser Trp Gln Ser Ala Leu Ser
                85                  90                  95
Asn Gly Ala Arg Val Gly Glu Val Ile Gly Leu Leu Ile Asn Gly Leu
            100                 105                 110
Ile Ser Glu Arg Leu Gly Tyr Arg Trp Thr Met Val Ser Ala Leu Ala
        115                 120                 125
Ala Met Asn Ala Val Ile Phe Leu Phe Phe Phe Ala Val Asp Ile Lys
    130                 135                 140
Met Leu Leu Ala Ala Glu Ile Leu Ala Gly Ile Pro Trp Gly Ile Phe
145                 150                 155                 160
Gln Thr Leu Pro Ala Ala Tyr Ala Ser Glu Val Cys Pro Val Val Leu
                165                 170                 175
Arg Pro Tyr Leu Thr Thr Phe Ile Asn Met Cys Trp Val Ile Gly Gln
            180                 185                 190
Phe Val Ala Val Gly Val Asn Arg Gly Ser Ile Gln Arg Pro Asp Gln
        195                 200                 205
Trp Ala Tyr Arg Ile Pro Phe Ala Val Gln Trp Ala Trp Pro Leu Pro
    210                 215                 220
Ile Leu Ile Gly Ile Leu Phe Ala Pro Glu Ser Pro Trp Trp His Val
225                 230                 235                 240
Arg Arg Gly Asn Leu Gln Gly Arg Gln Thr Gly Pro Ala Ser Ala Asp
                245                 250                 255
Phe Val Gln Gly Ser Gln Leu Pro Pro Gly
            260                 265

<210> 33316
<211> 133
<212> PRT
<213> A.fumigatus

<400> 33316
Thr Met Arg Gly Ser Leu Ala Pro Val Val Lys Thr Asn Ala Gly Asn
1               5                   10                  15
His Asn Ala Ala Phe Pro Asp Asn Val Tyr Thr Gly Val Leu Thr Val
            20                  25                  30
Gly Pro Thr Tyr Asn Ala Thr Ile Thr Gly Ala Gly Pro Thr Gly Tyr
        35                  40                  45
Pro Val Pro Ala Asp Thr Pro Phe Gly Cys Ser Asp Phe Arg Ala Tyr
    50                  55                  60
Asn Ile Asp Phe Arg Asn Glu Tyr Val Pro Tyr Ser Asp Gly Pro Ala
65                  70                  75                  80
His Ala Val Gly Leu Gly Tyr Ala Asn Ala Gly Phe Tyr Ser Cys Gly
                85                  90                  95
Leu Tyr Ser Tyr Gln Asp Thr Val Cys Ser Glu Arg Asn Leu Glu Arg
            100                 105                 110
Pro Pro Ala Asp Glu Ser Ser Cys Thr Leu Ala Asn Leu Pro Met Leu
        115                 120                 125
Ile Ser Thr Thr Pro
    130

<210> 33317
<211> 227
<212> PRT
```

<213> A.fumigatus

<400> 33317
Arg Asp Thr Glu Leu Ala Met Lys Phe Phe Ala Leu Ala Ala Leu Phe
1 5 10 15
Ala Ser Thr Val Asn Ser Ile Ala Val Asp Gly Leu Ile Pro Gly Ala
20 25 30
Arg Val Ile Pro Ala Asn Asp Val Val Ala Leu Lys Lys Val Gly Ala
35 40 45
Tyr His Gln Lys His His His Arg Arg Thr Val Ile Ile Arg Ser Ser
50 55 60
Ser Ser Asp Glu Asp Asp Val Ser Ala Asp Phe Leu Trp Gly Ile Lys
65 70 75 80
Arg Ala Asn Arg Gly Gly Arg Leu Leu Leu Gln Lys Gly Lys Lys Tyr
85 90 95
Val Ile Gly Lys Lys Leu Asp Leu Thr Phe Leu Lys Asp Ile Glu Val
100 105 110
Gln Leu Asp Gly Glu Leu Lys Val Leu Trp Pro Lys Ile Leu Asp Pro
115 120 125
Val Leu Ala Gly Val Asn Thr Ile Glu Lys Phe Thr Asn Asp Val Pro
130 135 140
Tyr Trp Gln Ala Asn Asn Phe Tyr Tyr Asp Phe Gln Lys Ser Ile Ser
145 150 155 160
Phe Trp Arg Trp Gly Gly Glu Asp Ile Lys Ile Phe Gly Ser Gly Val
165 170 175
Leu Asn Gly Asn Gly Gln Arg Trp Tyr Asn Glu Phe Ala Gly Gln Glu
180 185 190
Ile Leu Val Ser Leu Pro Glu Ser Leu Ser Arg Ser Leu Tyr Arg Leu
195 200 205
Val Leu Arg Ser Leu Gly Ser Gln Gln Gln Val Leu Ser Ala His Ser
210 215 220
Leu Arg Asp
225

<210> 33318
<211> 148
<212> PRT
<213> A.fumigatus

<400> 33318
Ala Asn Gly Gly Pro Gln Ala Leu Pro Lys Asn Thr Asp Gly Phe Asp
1 5 10 15
Thr Leu Asn Val Asp Gly Leu Thr Val Thr Asn Thr Arg Val Asp Ile
20 25 30
Gly Asp Asp Cys Leu Ser Pro Lys Pro Asn Thr Thr Asn Val Phe Val
35 40 45
Lys Asn Leu Trp Cys Asn Gly Thr His Gly Ala Ser Met Gly Ser Ile
50 55 60
Gly Gln Tyr Pro Gly Val Leu Asp Ile Ile Glu Asn Val Trp Ile Glu
65 70 75 80
Asn Val Thr Leu Leu Asn Gly Glu Val Arg Asn Thr Leu Pro Leu Ser
85 90 95
Ser Arg Ser Thr Ser Asn Ser Ile Arg Thr Val Leu Val Ser Arg His
100 105 110
Gly Leu Val Pro Met Leu Ala Met Ala Ala Ser Thr Thr Ser Leu Thr
115 120 125

```
Arg Thr Ser Thr Ser Arg Thr Arg Thr Ile Leu Leu Ser Trp Ile Ser
    130                 135                 140
Ala Thr Leu Thr
145

<210> 33319
<211> 92
<212> PRT
<213> A.fumigatus

<400> 33319
Asp Pro Asn Asn Lys Tyr Tyr Arg Pro Ile Leu Phe Val Thr Glu Asn
1               5                   10                  15
Ala Thr Arg Val Ser Val Glu Gly Ile Thr Gln Leu Asn Ser Pro Cys
            20                  25                  30
Trp Thr Asn Phe Phe Val Arg Thr Lys Asp Ile Ser Phe Asp Asn Val
        35                  40                  45
Phe Ile His Ala Tyr Ser Thr Asn Ala Ser Val Gly Phe His Ser Leu
    50                  55                  60
Val Glu Ala Glu Asp Lys Leu Thr Val Ala His Arg Arg Ser Pro Lys
65                  70                  75                  80
Thr Arg Met Ala Ser Thr Arg Ser Thr Ser Met Asp
                85                  90

<210> 33320
<211> 139
<212> PRT
<213> A.fumigatus

<400> 33320
Phe Tyr Gln Asn Gly Ala Arg Leu Lys Ala Trp Ala Gly Pro Asp Val
1               5                   10                  15
Gly Tyr Gly Arg Ile Asn Asn Val Thr Tyr Lys Asn Ile His Val Glu
            20                  25                  30
Asn Thr Asp Asn Pro Ile Val Leu Asp Gln Cys Tyr Phe Asn Ile Asn
        35                  40                  45
Ala Thr Gln Cys Ala Ala Tyr Pro Ser Arg Val Asn Phe Thr Asn Ile
    50                  55                  60
Val Phe Glu Asp Ile Tyr Gly Thr Ser Ser Gly Lys Arg Gly Lys Val
65                  70                  75                  80
Val Ala Asp Leu Thr Cys Ser Pro Asn Ala Val Cys Ser Gly Ile Arg
                85                  90                  95
Leu Lys Asn Ile His Leu Thr Ser Pro Ala Gly Ser Pro Pro Val Ile
            100                 105                 110
Val Cys Asp Gly Ile Gln Gly Asp Ile Gly Val Glu Cys Gln Ser Ser
        115                 120                 125
Ser Asn Ser Thr Thr Lys Arg Ser Val Asp Leu
    130                 135

<210> 33321
<211> 75
<212> PRT
<213> A.fumigatus

<400> 33321
Met Phe His His His Ser Ile Ile Arg Val Ile Leu Ser His Thr Leu
```

```
1               5                   10                  15
Gly Ser Ser Val Phe Cys Asn Ser His Asp Ile Tyr Ile Thr Gly Ser
            20                  25                  30
Phe Met Cys Phe Phe Pro Cys Leu Pro Leu Glu Pro Glu Ile Val Ile
        35                  40                  45
Tyr Met Ser Gln Ser Tyr Tyr Cys His Cys Gly Ser Asp Asp Cys Asp
    50                  55                  60
His Ser Asp Ile Gly Glu Asp Pro Ala Gly Ala
65                  70                  75
```

<210> 33322
<211> 297
<212> PRT
<213> A.fumigatus

<400> 33322

```
Ser Gln Thr Phe Phe Phe Leu Phe Ala Leu Ile Ser Leu Phe Thr Ser
1               5                   10                  15
Val Tyr Ile Gln Ser Trp Pro Gln Phe Ile Arg Ala Ser Ile Phe His
            20                  25                  30
Ala Leu Ala Ile Met Tyr His Tyr Ala Ser Pro Pro Pro Gly Trp Ser
        35                  40                  45
Ser Phe Asp Tyr Met Asn Ser Pro Pro Thr Ser Pro His Tyr Ala Tyr
    50                  55                  60
Tyr Ala Thr Gln Phe Ala Asn Pro Tyr Val Ser Pro Arg Gly Thr Ser
65                  70                  75                  80
Lys Arg His Asn Arg Lys Ala Ser Tyr Ala Ala Pro Arg Glu Ser Gly
                85                  90                  95
Ala Trp His Ser Gly Tyr Gly Gln Ser Phe Tyr Glu Ala Met Pro Glu
            100                 105                 110
Tyr Gly Thr Pro Pro Arg Lys His Glu Asn Val Ser Ala Phe Ser Gly
        115                 120                 125
Gly Tyr Ser Ser Cys Arg Arg Pro Arg Ala Arg Ser Val Ala Thr Gly
    130                 135                 140
Leu Trp Asp Lys Thr Gly Tyr His Phe His Glu Thr Pro Tyr Ser Ser
145                 150                 155                 160
Ala Gln Cys Arg Pro Ser Ile Phe Val Asp Val Val Asp Asp Val Phe
                165                 170                 175
Asp Asp Arg Pro Pro Val Thr Pro Lys Arg Asp Ser Tyr Ala Gln Ser
            180                 185                 190
Arg Arg Gln Pro Ser Leu Ser Gln Arg Lys Ala Arg Pro Pro Thr Asp
        195                 200                 205
Ser Tyr Phe Ser Ser Pro Gln Val Pro Ala Tyr Asp Asp Gln Asp Ser
    210                 215                 220
Pro Lys Arg Ser Arg Ala Arg Arg Gln Ser Thr Ser Thr Arg Thr Pro
225                 230                 235                 240
Ser Lys Pro Lys Pro Ser Ala Thr Pro Lys Ala Pro Pro Lys Ala Thr
                245                 250                 255
Glu Glu Asp Ala Ala Arg Ala Gly Ile Pro Pro Gly Tyr Ser Ile Lys
            260                 265                 270
Asn Trp Asp Pro Thr Glu Ala Pro Ile Ile Leu Leu Gly Ser Val Phe
        275                 280                 285
Glu Cys Gln Phe Asp Arg Pro Val Asp
    290                 295
```

<210> 33323

<211> 143
<212> PRT
<213> A.fumigatus

<400> 33323
Ala Gly Gln Phe Tyr Ser Ala Ser Trp Trp Ile Ile Met Pro Asp Pro
1 5 10 15
Ser Gln Gly Gly Phe Arg Ala Pro Ser Ala Ala Asp Ile Arg Thr Met
20 25 30
Leu Ser Asp Ile Cys Thr Asn Ser Gly Ala Glu Val Ser Phe Asp Asn
35 40 45
Leu Thr Phe Thr Ile Asn Gly Ser Asp Asp Ala Val Lys Ser Ala Met
50 55 60
Met Val Val Asn Gln Ile Pro Phe Val Lys Arg Ser Gln Tyr Gln Met
65 70 75 80
Arg Val Lys Ile Glu Leu Ala Asn Glu His Lys Glu Phe Val Ser Gly
85 90 95
Lys Lys Asn Gly Lys Ile Asn Lys Ile Met Gly Gln Ser Lys Ser Tyr
100 105 110
Phe Gln Gln Thr Val Cys Cys Asn Val Ser Leu Thr Phe Phe Arg Gln
115 120 125
Arg Ser Asn His Ile Arg Trp Leu Gln Arg Val Gln Leu Leu His
130 135 140

<210> 33324
<211> 221
<212> PRT
<213> A.fumigatus

<400> 33324
Asp Arg Ser Leu Leu Ser Phe Leu Phe Thr Lys Phe Leu Pro Asp Gln
1 5 10 15
Leu Pro Pro Phe Pro Ser Cys Ser Leu Ser Ser Leu Ser Pro Arg Leu
20 25 30
Ala Gln Gly Val Arg Asp Ser Ile Tyr Ser Gly Val Met His Lys Ile
35 40 45
Ser Asn Phe Thr Gly Gln Ala Arg His Gly Trp Glu Arg Met Thr Pro
50 55 60
Thr Phe Gly Met Ser Arg Pro His Thr Asp Met Thr Ser His Thr Leu
65 70 75 80
Arg Arg Pro His Gly Ala Pro Pro Met Thr Pro Pro Thr Gly Ile Asp
85 90 95
Pro Thr Val Asn Leu Ser Phe Asn Val Pro Phe Ser Ser Thr Leu Ala
100 105 110
Gly Pro Asp Ile Asp Asp Val Ile His Ala Ser Pro Gly Ala Leu Gln
115 120 125
Arg Trp Ser Phe Pro Glu Gly Thr Pro Glu Gly Thr Pro Val Tyr Asn
130 135 140
Leu Pro Val His Ala Asn Asn Val Glu Ser Leu Arg Arg Leu Cys Arg
145 150 155 160
Gln Ile Thr Glu Ser Ser Asn Gly Arg Val Glu Ala Val Val Thr Ser
165 170 175
Ser Glu Pro Lys Ser Val Pro Ser Leu Gln Arg Arg Pro Gln Gly Leu
180 185 190
Val Thr Asn Val Cys Ile Thr Gly Asp Gly Glu Thr Val Arg Lys Met
195 200 205

```
Arg Ala Lys Ile Leu Asn Glu Thr Pro Ile Leu Leu Val
    210                 215                 220

<210> 33325
<211> 177
<212> PRT
<213> A.fumigatus

<400> 33325
Ser Trp Ala Leu Met His Arg Gln Leu Lys Arg His Val Asp Ala Met
1               5                  10                  15
Arg Leu Glu Leu Thr Met His Thr Leu Val Cys Gly Arg Thr Arg Lys
            20                  25                  30
Asn Ile Lys Leu Ile Glu Ala Ala Thr Gly Thr Ala Ile Tyr Phe Pro
        35                  40                  45
Pro Pro Phe Pro Arg Ile Phe Gly Tyr Thr Pro Pro Gly Ala His Arg
    50                  55                  60
Arg Ser Glu Asp Glu Val Tyr Ile Thr Gly Asp Thr Gln Glu Gln Ile
65                  70                  75                  80
Ala Arg Ala Lys Gln Lys Leu Arg Glu Leu Val Met Gly Val Lys Ile
                85                  90                  95
Tyr Val Lys Asp Val Ile Val Asn Ser Asn Lys Ile Asp Asn Ile Leu
            100                 105                 110
Leu Asp Arg Leu Asp Lys Val Arg Lys Val Met Glu Met Asn Gly Ser
        115                 120                 125
Tyr Val Leu Phe Pro Gln Leu Gly Ser Gln Arg Gly Leu Val Arg Ile
    130                 135                 140
Gln Gly Thr Glu Val Leu His Val Glu Arg Thr Val Arg Glu Ile Met
145                 150                 155                 160
Ala Leu Val Arg Arg Ala Val Pro Ser Leu Ile Pro Ile Ala Phe Thr
                165                 170                 175
Phe


<210> 33326
<211> 207
<212> PRT
<213> A.fumigatus

<400> 33326
Pro Ser Ser Gly Asn Val Gln Ile Ile Phe Asp Gly Phe Asn Glu Tyr
1               5                  10                  15
Asn Phe Tyr Ile Asp Val Cys Gly Asn Gln Tyr Glu Ser Thr Lys Asn
            20                  25                  30
Gly Leu Asp Leu Val Glu Gln Glu Met Pro Ala Ser Ile Ser Phe His
        35                  40                  45
Val Pro Asp Gln Tyr His Lys Arg Ile Ile Gly Ile Gly Gly Gln His
    50                  55                  60
Ile Gln Arg Ile Met Lys Lys Tyr Ser Val Phe Val Lys Phe Ser Asn
65                  70                  75                  80
Ala Met Asp Arg Gly Gly Met Gly Lys Glu Asp Asp Asp Ile Lys Val
                85                  90                  95
Asp Asn Val Ile Cys Arg Thr Pro Ala Arg Asn Ala Gln Ser Leu Asp
            100                 105                 110
Leu Val Lys Gln Glu Ile Met Asp Met Val Glu Lys Val Val Ser Gly
        115                 120                 125
```

```
Arg Ser Cys Arg Asp Ser Pro Ser Lys Val Gly Leu Leu Ile Ala Ile
    130                 135                 140
Gln Asp Ala Glu Tyr Val Ser Glu Arg Val Val Ile Asn Arg Leu Tyr
145                 150                 155                 160
His Arg Glu Leu Leu Ala Arg Met Ala Glu Ile Asp Glu Leu Glu Lys
                165                 170                 175
Lys Trp Asn Cys Lys Ile Glu Phe Pro Ser Thr Glu Leu Ala Tyr Asp
            180                 185                 190
Val Val Thr His Phe Gly Pro Pro Val Ser Gly Pro Ser Gly Leu
        195                 200                 205
```

<210> 33327
<211> 717
<212> PRT
<213> A.fumigatus

<400> 33327

```
Arg Cys Asn Glu Gly Glu His Pro Glu Gly Val Gly Lys Arg Lys Ser
1               5                   10                  15
Phe Gly Gly Leu Thr Glu Phe Thr Gly Gln Gly Pro Leu Trp Gly Arg
            20                  25                  30
Gly Ser Ile Tyr Gly Thr Arg Trp Gly Ile Ser Glu Trp Met Ile Gly
        35                  40                  45
Lys Leu Leu Leu Ser Ser Arg Phe Met Gly Ala Asp Asp Glu Ile Phe
    50                  55                  60
Arg Pro Ser Phe Pro Ser Arg Asp Ala Asn Arg Arg Ala Ser Asn Ala
65                  70                  75                  80
Glu Pro Gly Ser Ala Pro Leu Glu Lys Arg Thr Val Glu Glu Pro Asp
                85                  90                  95
Pro Gly Arg Ala Tyr Gly Ser Leu Ser Thr Phe His His Val Gly Pro
            100                 105                 110
Ala Thr Gly Ala Ser Arg Ile Ser Ala Leu Arg Ala Ala Arg Glu Ser
        115                 120                 125
Val Thr Ser Ser Pro Ser Pro Pro Ser Ser Ala Tyr Arg Arg Pro Leu
    130                 135                 140
Ser Ala Ala Arg Ala Ala Pro Thr Gly Arg Ala Ala Ala Leu Ala Ala
145                 150                 155                 160
Glu Ala Ser Pro Ser Pro Leu Arg Arg Pro Ser Ile Ser Phe Gln Pro
                165                 170                 175
Phe Lys Ala Pro Pro Leu Ser Ala Ser Pro Ser Leu Ile Asp Pro Pro
            180                 185                 190
Leu Gly Ala Ser Pro Arg Ser Arg Pro Ile Val Ser Ala Pro Ser Ser
        195                 200                 205
Glu Pro Lys His Met Pro Pro Pro Ser Val Ala Ala Ser Gly Arg Lys
    210                 215                 220
Thr Gly Gln Ala Ala Ser Glu Asn Val Ile Ala Ser Ser Asn Ser Ala
225                 230                 235                 240
Ser Pro Arg Pro Ala Pro Ile Ala Arg Tyr Ser Ser Ala Phe Ser His
                245                 250                 255
Arg Arg Gly Arg Pro Ser Ser Gly Gly Ile Asn Lys Ile Glu Asp Asp
            260                 265                 270
Ala Ser Ser Gly Lys Ala Ser Ala Thr Ser Ser Gly Ala Gln Pro Gly
        275                 280                 285
Ser Gly Leu Leu Ala Glu Val Thr Gly Thr Ser Ala Asp Ser Leu His
    290                 295                 300
Ala Asp Asp Glu Asn Ile Ser Glu Phe Leu Lys Met Leu Asp Leu Arg
```

```
305                 310                 315                 320
Lys Asp Leu Leu Ser Pro Ser Asn Leu Ser Asn Leu Asp Ala Val Ala
                325                 330                 335
Arg Arg Thr Thr Val Thr Ser Ala Ala Leu Thr Arg Phe Gln Arg Met
            340                 345                 350
Arg Asp Ser Asn Ala Ala Leu Ser Glu Ser Met Ser Ser Ser Leu Leu
        355                 360                 365
Leu Gln Arg Ser Ser Asn Ala Ser Ser Lys Gln Leu Ser Gly Val Pro
    370                 375                 380
Pro Met Val Ala Gly Ala Ser Val Ser Thr Ala Ser Ser Pro Gly Lys
385                 390                 395                 400
Pro Ile Ser Pro His Thr Pro His Thr Pro Ala Ile Pro Ser Arg Leu
                405                 410                 415
Ser Ser Asn Ser Ile Val Asp Tyr Asn Asp His Gly His Ser Asp Gly
            420                 425                 430
Arg Leu Leu His Gly Gly Pro Thr Ser Leu Pro Glu Asp Thr Thr Gly
        435                 440                 445
Glu Glu Thr Ala Leu Val His Arg Pro Pro Thr Val Thr Ala Ile Asp
    450                 455                 460
Ile Pro Thr Ser Pro Arg Leu Phe Pro Pro Thr Tyr Arg Arg Ser Ser
465                 470                 475                 480
Ser Ala Ala Gln Asn Arg Arg Ser Val Val Ala Asp Glu Glu Glu Ile
                485                 490                 495
Phe Pro Phe Asn Met Arg Ser Val Ser Leu Gly Ala Glu Glu Arg Thr
            500                 505                 510
Asn Val Ser Leu Ser Thr Leu His Arg Arg His Glu Tyr His Asn Ala
        515                 520                 525
Ala Thr Asn Pro Glu Gln Gln Gln Glu Ser Gln Arg Ala Ser Ser Ser
    530                 535                 540
Ser Asp Gln Gly Pro Thr Ala Leu Pro Ser Pro Ala Lys Arg Glu Thr
545                 550                 555                 560
Arg Ser Gln Gly Asp Ala Thr Val Ser Gly Gln Thr Pro Asp Leu Ser
                565                 570                 575
Ser Ser Ala Asn His Asn Leu Tyr Gln Pro Arg Leu Gly Gln Phe Arg
            580                 585                 590
Ser Arg Gly Ser Phe Gly Gly Ala His Ser Leu Ser Ser Gly Ser Ser
        595                 600                 605
Ser Leu Ala Arg Gly Gly Gly Ile Pro Thr Tyr Leu Thr Glu Arg Asp
    610                 615                 620
Asn Asp Arg Asp Gly Asn Ala Ser Gly Ser Asn Ser Gly Asn Ser Thr
625                 630                 635                 640
Thr Glu Glu Arg Arg Gly Phe Gly Arg Arg Val Ser Ala Gly Arg Asn
                645                 650                 655
Tyr Pro Pro His Pro Ser Gln Val Glu Glu Asp Glu Pro Leu Leu Phe
            660                 665                 670
Ala Met Ser Asp Phe Gly Ala Ser Arg Arg Ser Phe Glu Glu Gly Arg
        675                 680                 685
Gln Gly Asn His Gly Ala Asp Phe Gly Gly Ser Arg Arg Gly Ser Gly
    690                 695                 700
Arg Arg Gly Ala Gly Val Pro Gly Phe His Val Trp Ser
705                 710                 715
```

<210> 33328
<211> 63
<212> PRT
<213> A.fumigatus

<400> 33328
Ile Ser Arg Asp Leu Phe Arg Trp Ser Ile Ser Ala Ala Arg Phe Asp
1 5 10 15
Arg Ile Phe Ser Phe Tyr Lys Ser Leu Ser Ser Leu Pro Phe Thr Ile
20 25 30
Ile Cys Glu Asp Asp Lys Ser Ser Ile Leu His His Leu Gly Leu Ile
35 40 45
Ser Cys Ile Arg His Cys Arg Ile Ala Tyr Ser Lys Phe Trp Asn
50 55 60

<210> 33329
<211> 71
<212> PRT
<213> A.fumigatus

<400> 33329
Leu Lys Arg Arg Ser Leu Arg Ile Asn Val Ile Val Pro Thr Ser Ala
1 5 10 15
Thr Phe Ile Gln Arg Leu Glu Gln Ala Thr Leu Arg Ser Ala Thr Asn
20 25 30
Gly Ser Trp Gly Phe Arg Phe His Gly Leu Phe Thr Trp Glu Ala Tyr
35 40 45
Ile Thr Ser Tyr Pro Pro Tyr Pro Gly Tyr Pro Phe Ser Ser Lys Phe
50 55 60
Lys Gln Tyr Cys Arg Leu Gln
65 70

<210> 33330
<211> 706
<212> PRT
<213> A.fumigatus

<400> 33330
Pro Arg Thr Arg Ile Leu Arg Asn Ser Cys Leu Val Gly Ser Thr Arg
1 5 10 15
Gln Ile Leu Arg Val Val Cys Ser Asn Trp Asp Ile Lys Asp Asp Ile
20 25 30
Ser Val Met Asp Ile Asp Glu Glu Pro Ala Lys Asp Ala Val Glu Ser
35 40 45
Ala Asp Glu Glu Asp Trp Leu Ala Glu Thr Thr Arg Pro Ala Lys Lys
50 55 60
Arg Lys Leu Gly Arg Asp Pro Met Asp Val Ile Ala Leu Ser His Ile
65 70 75 80
Asp Leu Pro Leu Leu Asp Asp Pro Glu Gln Ala Thr Met Arg Ile Ala
85 90 95
Lys Lys Val Thr Ile Asp Met Asn Asp Pro Phe Ile Leu Leu Asp Glu
100 105 110
Arg Gly Pro Glu Ala Val Ala Pro Lys Pro Lys Ala Leu Ala His Leu
115 120 125
Asn Arg Glu Glu Met Asp Val Asn Val Thr Arg Arg Leu Thr Ser Arg
130 135 140
Tyr Asn Ile Ser Asn Asp Gln Ala Tyr Asp Met Leu Lys Gln Asn His
145 150 155 160
Gln Asn Lys Ile Arg Ser Thr Leu Gly Asn Val Thr Leu Glu His Ser
165 170 175

```
Met Pro Ala Leu Arg Leu Gln Trp Pro Tyr Tyr Lys Thr Glu Leu Ala
            180                 185                 190
Lys Ala Glu Ala Arg Ser Phe His Arg Pro Ala Leu Ser Phe Arg Pro
        195                 200                 205
Gly Gln Thr Cys Trp Phe Lys Asn Pro Ala Tyr Ile Lys Arg Lys His
    210                 215                 220
Gln Lys Gly Lys Asp Ala Lys Thr Leu Tyr Asp Ser Thr Lys Ala Leu
225                 230                 235                 240
Ser Met Ala Asp Asn Ser Asn Val Leu Leu Val Glu Tyr Ser Glu Glu
                245                 250                 255
Ser Pro Leu Met Leu Ser Asn Phe Gly Met Ser Asn Arg Phe Ile Asn
            260                 265                 270
Tyr Tyr Arg Arg Lys Asn Met Glu Asp Ser Thr Arg Pro Lys Ala Glu
        275                 280                 285
Ile Gly Glu Thr Val Val Leu Leu Pro Gln Asp Lys Ser Pro Phe Ser
    290                 295                 300
Ile Phe Gly His Val Asp Pro Gly Glu Ile Thr Pro Thr Ile Ser Asn
305                 310                 315                 320
Ser Met Tyr Arg Ala Pro Leu Phe Gln His Gln Pro Arg Ser Thr Asp
                325                 330                 335
Phe Leu Val Val Arg Ser Ser Thr Gly Ala Gly Gly Ser Asp Tyr Tyr
            340                 345                 350
Leu Arg Asn Ile Glu His Leu Tyr Val Ala Gly Gln Gln Phe Pro Ser
        355                 360                 365
Val Asp Val Pro Gly Pro His Ser Arg Lys Val Thr Thr Val Ala Lys
    370                 375                 380
Asn Arg Met Lys Met Leu Val Tyr Arg Leu Leu Lys Lys Ser Pro Asp
385                 390                 395                 400
Met Arg Leu Ser Ile Ser Asp Val Thr Ala His Ile Pro Gly Thr Ser
                405                 410                 415
Asp Met Gln Asn Arg Gln Lys Val Lys Asp Phe Leu Gln His Asp Lys
            420                 425                 430
Asp Ser Lys Tyr Trp Val Pro Leu Glu Pro Val Pro Glu Ser Asp Thr
        435                 440                 445
Ile Arg Ser Trp Val Gln Pro Glu Asp Val Cys Leu Leu Glu Ala Met
    450                 455                 460
Gln Val Gly Gln Gln His Leu His Asp Thr Gly Tyr Gly Ile Asp Ala
465                 470                 475                 480
Glu Thr Gly Gly Asp Glu Asp Glu Asp Gly Glu Gly Glu Ser Phe Glu
                485                 490                 495
Gln Gln Met Ala Pro Trp Lys Ala Thr Arg Asn Phe Leu Leu Ala Ser
            500                 505                 510
Gln Gly Lys Ala Met Leu Lys Leu His Gly Glu Gly Asp Pro Thr Gly
        515                 520                 525
Arg Gly Glu Gly Phe Ser Phe Ile Lys Thr Ser Met Lys Gly Gly Phe
    530                 535                 540
Lys Ala Ile Gly Glu Ser Val Glu Asp Lys Leu Asp Ala Gln Arg Leu
545                 550                 555                 560
Lys Glu Leu Gly Gly His Ser Tyr Asn Val Ala Arg Gln Gln Lys Ser
                565                 570                 575
Tyr Glu Thr Ser Ile Arg Arg Ile Trp Asp Ala Gln Lys Ala Ser Leu
            580                 585                 590
Ser Ser Thr Val Glu His Ser Asp Asp Glu Ser Asp Met Asp Arg Glu
        595                 600                 605
Met Glu Glu Asp Phe Ser Lys Pro Thr Pro His Ser Glu Ala Pro Thr
    610                 615                 620
```

```
Pro Ala Pro Asn Arg Arg Asp Asp Glu Thr Thr Ser Gln Phe Ser Lys
625                 630                 635                 640
Met Ser Met Ala Asp Gln Lys Gly Lys Val Leu Arg Ile Val Arg Gln
                645                 650                 655
Phe Lys Asp Glu Arg Gly Glu Ile Val Gln Lys Glu Thr Thr Val Trp
            660                 665                 670
Asp Pro Arg Val Ile Arg His Tyr Ile Gln His Arg His Lys Met Glu
        675                 680                 685
Ala Leu Thr Thr Lys Tyr Ala Cys Pro His Tyr Leu Pro Thr Leu Phe
    690                 695                 700
Ile His
705
```

<210> 33331
<211> 288
<212> PRT
<213> A.fumigatus

<400> 33331

```
Ser Leu Thr Val Ala Arg Ser Ala His Lys Ile Arg Asn Arg Ser Ser
1               5                   10                  15
Gln Asn Phe Lys Ala Val Thr Ser Ile Lys Ala His Leu Arg Trp Cys
            20                  25                  30
Leu Thr Gly Thr Pro Ile His Asn Ser Leu Asp Asp Tyr Gly Ala Leu
        35                  40                  45
Leu Ser Phe Ile Gly Val Pro Ala Leu Ser Asp Lys Pro Ala Phe Asp
    50                  55                  60
Arg Trp Ile Ala Ser Pro Val Lys Gln Lys Gln Thr Gly Ser Leu Gln
65                  70                  75                  80
Arg Leu Gln Tyr Leu Val Ala Ala Thr Ala Phe Arg Arg Thr Lys Ala
                85                  90                  95
Met Val Lys Met Thr Val Ala Leu Pro Lys Lys Val Glu Arg Ile Glu
            100                 105                 110
Ser Ile Gln Phe Thr Gly Ala Asp Arg Glu Leu Tyr Glu Phe Phe Lys
        115                 120                 125
Val Lys Ala Ser Arg Leu Val Gly Gln Leu Thr Gly Phe Arg Gln Ser
    130                 135                 140
Met Ala Ala Thr Ala Asp Asn Lys Lys Glu Ser Thr Leu Ser Leu Ile
145                 150                 155                 160
Asn Leu Leu Arg Leu Ile Cys Asn His Gly Glu His Leu Leu Pro Ala
                165                 170                 175
Ser Ala Ile Asn Glu Trp Arg Thr Arg Gln Asn Glu Gln Ile Thr Ser
            180                 185                 190
Asp Val Tyr Phe Gly Arg His Pro Gly Gln Ser Ser Gln Arg Ala Ser
        195                 200                 205
Val Pro Val Asp Arg Lys Thr Pro Glu Ser Gly Val Leu Thr Asn Gly
    210                 215                 220
Glu Arg Ile Thr Asn Val Asn Thr Pro Tyr Pro Ser Ser Gln Glu Phe
225                 230                 235                 240
Pro Met Ile Pro Asp Thr Ala Ser Ser Pro Leu Ala Pro Tyr Glu Val
                245                 250                 255
Arg Leu Ser Pro Ser Ala Lys Val Lys Ala Leu Leu Lys Asn Leu Glu
            260                 265                 270
Arg Glu Gln Ser Ala Asp Arg Gly Thr Ser Tyr Gln Pro Val Lys Arg
        275                 280                 285
```

<210> 33332
<211> 70
<212> PRT
<213> A.fumigatus

<400> 33332
Gln Gln Leu Ile Arg Arg Ile Asp Ser Val Asp Leu Thr Ala Ala Asn
1 5 10 15
Tyr Val His Leu Leu Glu Pro His Trp Asn Pro Met Val Glu Ala Gln
20 25 30
Ala Val Asp Arg Val His Arg Ile Gly Gln Ser Arg Glu Val Val Val
35 40 45
Thr Arg Tyr Phe Ile Glu Asn Ser Ile Glu Asp Val Arg Asn Leu Val
50 55 60
Ser Cys Ser Ala Pro Ile
65 70

<210> 33333
<211> 77
<212> PRT
<213> A.fumigatus

<400> 33333
Arg Arg Ser Phe Asn Pro Asp Gln Thr Ser Leu Thr Arg Asp Ser Val
1 5 10 15
Ile Phe Ser Gln Trp Thr Arg Met Leu Asp Leu Val Ala Gln Ala Leu
20 25 30
Arg Lys His Ser Tyr Lys Tyr Ala Arg Ile Asp Gly His Ser Ser Leu
35 40 45
Ala Asp Arg Arg Ser Ala Ile Gln His Phe Asn Gly Asp Asn Asn Cys
50 55 60
Thr Val Met Leu Ala Ser Ile Gly Ser Ala Gly Glu Gly
65 70 75

<210> 33334
<211> 131
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (48)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 33334
Leu Arg Gln Asn Leu Val Val Phe Gln Trp Tyr Tyr Val Phe Gln Arg
1 5 10 15
Glu Asp Ser Asp Gly Arg Ser Tyr Ser Arg Leu Glu Gly Thr Asp Ser
20 25 30
Lys Val Gly Leu Gly Thr Val Thr Met Arg Thr Gly Leu Ile Gly Xaa
35 40 45
Arg His Ile His Pro Gly Gln Val Arg Tyr Leu Val Tyr His Gly Arg
50 55 60
Lys Arg Arg Val Thr Gln Gln Ala Leu Ser Arg Asp Tyr Asp Ile Val
65 70 75 80
Ile Thr Thr Tyr Asp Thr Leu Leu Ser Asp Trp Arg Ala Gly Ser Gly

```
                85                  90                  95
Leu His Ser Glu Ile Trp Tyr Arg Val Ala Leu Asp Glu Gly Lys Tyr
            100                 105                 110
Asp Val Asn Gly Glu Ser Tyr Leu Ser Met Ile Ile Asp Ser Cys Thr
        115                 120                 125
Phe Ser Thr
    130

<210> 33335
<211> 141
<212> PRT
<213> A.fumigatus

<400> 33335
Ser Val Ser Gly Ala Ser Gly Gly Phe Lys Thr Asp Thr Asp Ile Ser
1               5                   10                  15
Gly Asn Phe Ala Met Arg Glu Arg Ala Leu Lys Arg Trp Glu Pro Ala
            20                  25                  30
Ala Asp Thr Glu Val Asp Leu Ser Leu Glu Ser Thr His Asp Thr Ala
        35                  40                  45
Gly Trp Asp Gln Phe Glu Thr Asn Glu Arg Leu Phe Gly Ala Thr Ser
    50                  55                  60
Ser Tyr Asp Glu Asn Ile Tyr Thr Thr Arg Ile Asp Arg Ser Asp Pro
65                  70                  75                  80
Ser Tyr Lys Gln Arg Glu Ala Glu Ala Ala Arg Ile Ala Arg Glu Ile
                85                  90                  95
Glu Ser Thr Asn Val Asp Asn Ile His Val Arg Glu Glu Arg Gly Leu
            100                 105                 110
Ala Pro Val Asp Asp Ser Gly Leu Asp Glu Glu Asp Lys Ser Arg Gly
        115                 120                 125
Val Arg Leu Leu Ile Arg Pro Pro Leu Ala Val Ser Gly
    130                 135                 140

<210> 33336
<211> 165
<212> PRT
<213> A.fumigatus

<400> 33336
Leu Thr Leu Ala Ser Ser Glu Asn Leu Ala Arg Ile Ala Val Lys His
1               5                   10                  15
Gln Pro His Ser Thr Ile Val Ala Asp Ile Leu Asn Leu Pro His Pro
            20                  25                  30
Asp Ser Leu Phe Asp Phe Ala Ile Ser Ile Ala Val Val His His Leu
        35                  40                  45
Ser Thr Pro Glu Arg Arg Ile Arg Ala Ile Arg Glu Ile Leu Arg Thr
    50                  55                  60
Leu Lys Pro Ala Ser Asp Lys Ser Ser Gly Gly Arg Val Leu Leu Tyr
65                  70                  75                  80
Val Trp Ala Leu Glu Gln Lys Thr Ser Arg Arg Gly Trp Asp Lys Gly
                85                  90                  95
Asp Lys Gln Asp Val Met Val Pro Trp Val Leu Lys Pro Lys Ser Ala
            100                 105                 110
Asn Gly Ser Ser Asp Asp Glu Pro Arg Thr Phe His Arg Tyr Tyr His
        115                 120                 125
Leu Tyr Glu Ala Thr Glu Leu Glu Arg Asp Ile Glu Arg Ala Gly Gly
```

```
    130                 135                 140
Arg Val Leu Asp Ser Gly Tyr Glu Lys Asp Asn Trp Trp Ala Ile Ala
145                 150                 155                 160
Thr Arg Ser Glu Glu
                165

<210> 33337
<211> 147
<212> PRT
<213> A.fumigatus

<400> 33337
Arg Gly Ser Ile Ala Pro Arg Gly Glu Asp Ala Gly Pro Val Thr Thr
1               5                   10                  15
Thr Ser Ala Phe Pro Ser Arg Thr Leu Pro Pro Ala Ser Met Gly Gln
            20                  25                  30
Ala Met Pro Val Ala Ala Ser Thr Pro Leu Ser Ser Ala Pro Pro Leu
        35                  40                  45
Thr Ala Lys Ile Pro Ala Ser Val Pro Ala Lys Arg Leu Gln Pro Ala
    50                  55                  60
His Thr Ala Glu Ser Pro Ala Lys Lys Gln Ser Lys Trp Ser Pro Glu
65                  70                  75                  80
Glu Asp Ala Leu Ile Ile Glu Leu Arg Gly Ser Gly Met Lys Trp Glu
                85                  90                  95
Asp Ile Ser Lys Arg Leu Pro Gly Arg Ser Ala Ile Ser Cys Arg Leu
            100                 105                 110
His Tyr Gln Asn Tyr Leu Glu Arg Arg Ser Glu Trp Asp Glu Asp Lys
        115                 120                 125
Lys Asn Lys Leu Ala Arg Leu Tyr Glu Arg Tyr Val Ser Glu Lys Asn
    130                 135                 140
Gly Pro Val
145

<210> 33338
<211> 237
<212> PRT
<213> A.fumigatus

<400> 33338
Asp Ile His Asp Ser Tyr Glu Leu Pro Leu Thr Gln Ala Gly Phe Asp
1               5                   10                  15
Gly Ala Ile His Met Ser Glu Glu Val His Asn Pro Thr Thr Val Val
            20                  25                  30
Pro Arg Ile Leu Ile Gln Thr Ile Leu Ile Asn Gly Thr Leu Ala Phe
        35                  40                  45
Gly Phe Ile Leu Val Met Leu Phe Cys Ile Gly Asp Ile His Ser Ile
    50                  55                  60
Leu His Ser Pro Thr Gly Phe Pro Ile Ile Ala Met Phe Tyr Gln Ala
65                  70                  75                  80
Thr Gly Ser Val His Ala Thr Thr Ala Met Gln Ser Ala Ile Thr Leu
                85                  90                  95
Ile Gly Ser Val Ser Asn Ile Ala Val Val Ala Ser Val Ser Arg Leu
            100                 105                 110
Thr Trp Ala Phe Ala Arg Asp Gly Gly Leu Pro Tyr Ser Lys Phe Phe
        115                 120                 125
Ala His Val Asp Gly Lys Tyr His Thr Pro Leu Arg Ala Ile Cys Leu
```

```
    130                 135                 140
Val Cys Phe Thr Val Val Leu Leu Ser Leu Val Asn Ile Ala Ser Thr
145                 150                 155                 160
Thr Ala Leu Ser Ala Val Leu Ala Leu Thr Thr Ser Ser Leu Phe Ile
                165                 170                 175
Ser Tyr Ile Ile Pro Val Val Met Met Ala Arg Lys Arg Ile Arg Lys
            180                 185                 190
Glu Pro Ile Ala Phe Gly Pro Phe Ala Leu Gly Arg Trp Gly Leu Ala
        195                 200                 205
Asn Asn Ile Tyr Ala Ile Val Phe Gly Val Phe Asn Leu Tyr Phe Arg
    210                 215                 220
Val Ile Ser Asp Arg Asn Ser Cys Asp Arg Tyr Gln Tyr
225                 230                 235
```

<210> 33339
<211> 82
<212> PRT
<213> A.fumigatus

<400> 33339

```
Ala Ala Gly Asn Leu Ser Leu Pro Ser Gly Phe Ala Pro Gly Leu Met
1               5                   10                  15
Asn Gly Gly Pro Ala Ala Leu Val Trp Gly Met Leu Leu Ser Ile Thr
            20                  25                  30
Gly Thr Met Ala Leu Ala Leu Ser Leu Gly Glu Met Ala Ser Ile Cys
        35                  40                  45
Pro Leu Ala Gly Ala Gln Tyr His Trp Thr Ala Leu Leu Ala Pro Pro
    50                  55                  60
Arg Ile Arg Ala Phe Ser Thr Trp Met Gln Gly Thr Ser Tyr Gly Lys
65                  70                  75                  80
Ala Val
```

<210> 33340
<211> 144
<212> PRT
<213> A.fumigatus

<400> 33340

```
Ser Ser Leu Thr Tyr Asp Ala Gly Trp Ile Thr Val Phe Gly Trp Gln
1               5                   10                  15
Ala Ala Val Thr Ser Ile Ser Phe Leu Val Ala Thr Gln Ile Gln Gly
            20                  25                  30
Leu Ile Ile Leu Asn Arg Pro Glu Tyr Glu Pro Gln Arg Trp His Gly
        35                  40                  45
Thr Leu Leu Met Trp Ala Val Met Leu Phe Ser Leu Ser Ile Asn Val
    50                  55                  60
Phe Ala Val Arg Ile Leu Pro Phe Leu Gln Leu Leu Gly Gly Leu Met
65                  70                  75                  80
His Val Val Phe Phe Ile Val Leu Ile Val Pro Leu Val Leu Leu Ser
                85                  90                  95
Pro Arg Ser Thr Pro Glu Phe Val Phe Thr Glu Leu Leu Asn Gln Gly
            100                 105                 110
Gly Trp Ser Ser Asp Gly Val Ser Trp Cys Leu Gly Met Leu Thr Val
        115                 120                 125
His Tyr Cys Phe Thr Gly Lys Thr Phe Met Thr His Met Asn Phe His
```

130 135 140

<210> 33341
<211> 202
<212> PRT
<213> A.fumigatus

<400> 33341
Thr Ser Thr Asp Ala Gly Arg Ile Arg Arg Gly His Pro His Glu Arg
1 5 10 15
Arg Ser Pro Gln Pro Asp His Arg Gly Pro Ser His Pro His Pro Asn
20 25 30
His Ser Tyr Gln Arg His Ser Gly Ile Arg Val His Ser Gly His Ala
35 40 45
Val Leu His Arg Arg His Ser Leu His Leu Thr Leu Ser His Arg Leu
50 55 60
Pro His His Arg His Val Leu Pro Gly His Arg Leu Arg Pro Arg Asn
65 70 75 80
Asn Ser Asn Ala Ile Gly His His Pro Asp Arg Leu Arg Leu Gln His
85 90 95
Arg Arg Arg Cys Val Arg Leu Pro Pro His Met Gly Phe Cys Pro Arg
100 105 110
Arg Arg Pro Ala Leu Phe Gln Val Leu Cys Ser Arg Gly Trp Gln Ile
115 120 125
Pro His Pro Pro Pro Arg His Leu Pro Arg Leu Leu His Cys Arg Pro
130 135 140
Ala Leu Pro Arg Gln His Arg Leu His His Arg Pro Gln Arg Cys Pro
145 150 155 160
Gly Pro His His Gln Leu Ala Phe His Leu Ile His His Pro Arg Arg
165 170 175
His Asp Gly Pro Glu Ala Tyr Thr Glu Gly Ala Asp Cys Val Arg Pro
180 185 190
Ile Cys Ala Trp Pro Met Gly Ser Gly Glu
195 200

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Asp His Ser Gly Tyr Val Ala Val Thr Val Tyr Thr Leu Leu Ser Leu
20 25 30
Thr Val Thr Thr Val Phe Val Arg Leu Phe Thr Arg Trp Tyr Ile Ala
35 40 45
Arg Asp Val Tyr Ser Asp Asp Val Leu Leu Thr Gly Ala Thr Val Ser
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Ser Ser Thr Cys His Gly Leu Phe Leu Thr Gly Leu Thr Phe Asp Leu
65 70 75 80
Val

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20 25 30
Ile Val Thr Ala Val Phe Thr Leu Pro Asn Phe Val Ser Leu Ser Cys
35 40 45
Gly Pro Arg Ser Leu Phe Leu Ser Pro Arg Val Ile Pro Leu Arg Ser
50 55 60
Trp Leu Val Tyr Thr Ala Phe Phe Val Thr Val Asn Leu Leu Asn Asn
65 70 75 80
Trp Ala Phe Ala Tyr Ser Ile Ser Val Pro Leu His Ile Ile Leu Arg
85 90 95
Ser Gly Gly Pro Val Ala Ser Leu Ile Val Gly Tyr Ser Phe Asn Gly
100 105 110
Lys Lys Tyr Ser Tyr Gly Gln Ile Leu Ala Val Ala Val Leu Thr Leu
115 120 125
Gly Val Val Thr Ala Ala Leu Ala Asp Ala Gln Ala Lys Gly Glu Pro
130 135 140
Leu Gly Ile Gly His Gly Gly Ser Ser Pro Gln Gly Pro Thr Asp Pro
145 150 155 160
Arg Asn Glu Leu

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20 25 30
Gly His Thr Val Ile Ile Met Ala His Lys Leu Ser Thr Leu Glu Lys
35 40 45
His Met Lys Ala Gly Arg Asp Ala Val Ala Met Met Ala Asp Gly Arg
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Leu Asp Glu Val Ile Asn Tyr Leu Gly Pro Glu Thr Phe Gln Tyr Ser
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Met Gln Met Gly His Arg Leu Thr Gly Thr Ser
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20 25 30